HYPERION AVIATION

GROUND OPS MANUAL

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0 ADMINISTRATION & CONTROL

0.1 RECORD OF REVISIONS

Original	**10OCT22**
Revision 1	**19FEB24**
Revision 2	**22 August 2024**
Revision 3	
Revision 4	
Revision 5	

0.1.1 ISSUE & REVISION DATES, LIST OF EFFECTIVE PAGES

This GOM is replaced in its entirety when updates are made, as such a "list of effective pages" is superfluous and is no longer provided in this manual.

All changes with reference to the previous version are marked with a vertical bar on the left side

0.2 REVISION HIGHLIGHTS

The following table describes changes in this edition of the Hyperion Aviation Ground Operations Manual.

Version	Changes
Original	Initial version
Revision 1	Aircraft Layout
Revision 2	
Revision 3	
Revision 4	
Revision 5	

0.3 INTRODUCTION, PURPOSE & SCOPE

The ground handling instructions contained in this edition of the Hyperion Aviation Ground Operations Manual, are the binding authority for all information and procedures in the field of aircraft ground handling performed on aircraft operated by Hyperion Aviation. This manual is written following IATA's IGOM standard, where applicable.

Instructions in this GOM, govern the responsibilities for aircraft ground handling and describe the procedures for the handling of the departing and arriving flights. The overall responsibility (editorial as well as operational execution) for the ground handling instructions lies with the Hyperion Aviation Director Ground Operations, who is "Nominated Person", and approved & audited by the respective applicable National Civil Aviation Authorities. (Transport Malta – Civil Aviation Directorate respectively.)

All amendments shall be in the form of electronic GOM re-issue (PDF format dissemination either by email, data-carrier and/or intra/extra/inter-net up/down-load). Hand written amendments are not permitted. Revision pages will be annotated to show the date of issue, the amendment list number, and the portion of the text, which has been revised, as indicated by vertical marginal lines adjacent to the changes. Each amendment will be accompanied by a revised list of effective pages, with their dates of issue, and by a certificate of receipt/incorporation. An amendment list record will be maintained at the front of each manual.

FBO/GSP Handling Staff involved with Hyperion Aviation aircraft handling must have easy access to both volumes of this GOM. A copy of this GOM, shall also be held at each FBO/GSP facility where Hyperion Aviation aircraft are handled. Sufficient additional copies shall be provided internally by the FBO/GSP, to ensure that all operating staff have ready access to them when required. Every station/FBO/GSP will be informed on download instructions by means of email when a handling request is sent.

All FBO/GSP companies are expected to comply with the standards and requirements detailed in these ground handling instructions. However, depending on the situation encountered, all staff members must demonstrate common sense and integrity in the performance of their duties.

This GOM, contains all relevant information to describe the efficient management structure and systematic approach to ground operations. It is the means by which FBO/GSP Handling Staff are fully informed as to their duties and responsibilities with regard to safety and service. It details the expected company services, all operating procedures and any restrictions on operations. It also contains all information, procedures and instructions that are necessary to enable FBO/GSP Handling Staff to perform their duties in such a manner that will ensure that FBO/GSP & Hyperion Aviation facilities, equipment and aircraft are safe for use by passengers and all staff.
This issue of the GOM, has been approved by the respective Hyperion Aviation Ground Operations Managers and Compliance Monitoring Managers prior to distribution.

Approvals:

Signature:	Signature:
Taoufik Tzounti NP GROUND OPERATIONS	Guy Farnfield Accountable

0.4 GROUND OPERATIONS MANUAL - GENERAL INFORMATION

0.4.1 COMPANY NAME - USE & DEFINITION

For brevity within this GOM, the company name “Hyperion Aviation” is used.

0.4.2 APPLICABILITY

The purpose of this Ground Operations Manual (GOM) is to provide written guidance for Ground Handling Agents (FBO/GSP) and to define the policies and procedures required to be followed to ensure compliance with the requirements of EASA-OPS, EU and NAA regulatory requirements, whichever take precedence and where possible.

This GOM is to be used by FBO/GSP's and applies to all staff entering Hyperion Aviation aircraft (when required and approved by Hyperion Aviation crew) for purposes such as ramp handling, catering, aircraft cleaning or supervision.

It specifically excludes aircraft maintenance topics, but deals on certain selected fuelling and de-icing tasks. While all relevant factors have been taken into consideration, these procedures constitute best practice and some additional information may be required.

It is the responsibility of the users and holders of the Ground Operations Manual to:

- Know its contents and follow the instructions, guidelines, laws and regulations.
- Adhere to the procedures in the manner outlined, but nothing herein should be considered as limiting personnel from acting on their best judgment to safeguard life and property.

Note: Following Hyperion Aviation publications and manuals provide further information. Should information contained therein be required by the FBO/GSP, relevant parts of these can be obtained upon special request.

- Ground Operations Manual,
- Aircraft Documents,
- Aircraft Manual(s), excerpts,

0.4.3 CONFIDENTIALITY

0.4.3.1 AIRCRAFT ACCESS

Hyperion Aviation crew will communicate upon aircraft arrival at a station whether FBO/GSP Handling Staff is required and/or allowed to enter the aircraft. Only staff cleared and required to enter the Hyperion Aviation aircraft will be allowed entry in order for them to complete their task(s).

0.4.3.2 GROUND OPERATIONS MANUAL

This GOM contains no restricted information, however, due to its commercial confidential nature it should nonetheless under no circumstance be divulged to parties not involved in handling Hyperion Aviation flights. Much information, whether current, future or historical, could be of benefit to our competitors and be of interest to the media or other third parties.

0.4.3.3 GENERAL

In view of the (V)VIP/(U)HNWI customer profile using Hyperion Aviation as their travel provider we require from our staff, partners and supplier's absolute discretion when talking about Hyperion Aviation as their employer, their business partner, their supplier or customer.
The term "confidential information" shall mean without designation, Hyperion Aviation customer and employee information and Hyperion Aviation customers, personal, family and travel information, preferences and customs, home addresses and information and conversations overheard while the FBO/GSP staff is providing services.

No-one should under any circumstance be tempted to reveal details about Hyperion Aviation aircraft handled at a station's airport. In particular, following information must remain absolutely confidential at all times. FBO/GSP/Airport/Supplier staff must:

- Keep absolute discretion and maintain confidentiality on all aspects about their base/airport and operation(s);
- Do not disclose the identity of the aircraft's owner, nor the identities of our customers/passengers especially when they are famous/well known personalities;
- Do not, under any circumstance, make internal or external photographs of the aircraft when on the ramp/airport/FBO/GSP/hangar;
- Do not, under any circumstance make photographs of Hyperion Aviation customers, passengers or staff;
- Do not divulge information, or make photographs/photocopies about objects, documents found/present on-board our aircraft, or divulge anything overheard while on-board or in the terminal/FBO/GSP lounge while crew/passengers/customers are having conversations;
- Do not disclose planned or actual routes, schedules, arrival/departure times, destinations of our aircraft, nor disclose our aircraft's layout and features;
- Do not consult any document, books, magazines, CD/DVD, electronic equipment (GSM, laptop, tablet, etc.) found on board;
- Do not distribute anything, by any means, belonging Hyperion Aviation, its crews, customers and passengers.

FBO/GSP Handling Staff shall ensure sightseers and visitors are not allowed on board or near a Hyperion Aviation aircraft.

Confidential information of Hyperion Aviation shall remain the exclusive property of Hyperion Aviation. Should any Hyperion Aviation or FBO/GSP staff member be approached with a request for information, the request should be politely referred to Hyperion Aviation/or 's Ground Operations Department.

0.4.3.4 SOCIAL MEDIA - RESTRICTIONS

Furthermore, mentioning any flight schedule & load details & passenger names, e.g. like those listed in "GOM 0.5.2.2", using any social media (e.g. Facebook, Twitter, LinkedIn, Instagram, Snapchat, Pinterest, Foursquare, YouTube, Periscope, etc.) is also strictly prohibited.

It is also strictly prohibited to upload any media (photos, videos, snaps/periscope streams, etc.) of Hyperion Aviation:

- passengers and customers,
- facilities (interior),
- aircraft (when parked inside Hyperion Aviation, and FBO/GSP hangars/facilities),

using any social media tool/application/website.

All staff must be aware of the risks and (legal) consequences of deliberately or inadvertently disclosing information about the identity and location of our customers whilst using social networking sites.

With the current tendency towards the erosion of privacy safeguards, any information posted on social media/networking sites has an ever-increasing potential to be distributed far more widely than intended. All staff members must respect our obligations to client confidentiality and understand that this is an important facet of the service that we, and the FBO/GSP, provide.

0.4.3.5 BREACH OF CONFIDENTIAL INFORMATION

Breach of confidential information can be considered grounds for immediate contract termination. The FBO/GSP shall have each of its officers, directors, employees and contractors, who provide services described and mentioned in this GOM&B and/or the SGHA, execute a confidentiality agreement, part of the employment contract/services contract, consistent with the provisions of this statement. Copies of such executed agreements shall be available to Hyperion Aviation upon simple request. The FBO/GSP shall be responsible for a breach of this statement by any of those parties.

0.4.3.6 DATA PROTECTION

The FBO/GSP agrees that in performing aircraft support services it shall process any and all Hyperion Aviation Customer Data solely as a data processor on behalf of Hyperion Aviation agrees specifically that:

- it will process Hyperion Aviation Customer Data only for the purpose of providing the services to Hyperion Aviation in accordance with the terms of this Agreement and limited to the extent necessary for this purpose and will process Hyperion Aviation Customer Data only on, and in accordance with, the instructions of Hyperion Aviation or any such third party as Hyperion Aviation may designate in writing;
- it will take all required technical and organisational measures to ensure that Hyperion Aviation Customer Data is kept secure from processing which is unlawful or unauthorised and from any loss, destruction or damage, and without prejudice to the foregoing, it will further comply with the technical and organisational measures issued from time to time by Hyperion Aviation;
- it will ensure and warrants to Hyperion Aviation the reliability of any of its employees and agents who have access to Hyperion Aviation Customer Data;
- it will notify Hyperion Aviation immediately in writing if it becomes aware of any data subject wishing to exercise any subject access request under the Acts and, on the request of Hyperion Aviation it will provide all such assistance that Hyperion Aviation reasonably requires to respond to any such request in a timely manner and in accordance within any deadline in the Acts;
- it will ensure that all Hyperion Aviation documents (flight plans/releases, briefing sheets, logistic reports, email printouts, etc.) that are out-dated or superfluous are destroyed, preferably by cross-cut shredding and that such paperwork is not to be "re-used" by FBO/GSP Handling Staff for any reason;
- it will allow Hyperion Aviation to access its premises at any time.

FBO/GSP companies will comply with all provisions of the Directive, the Acts, and any and all regulations and codes which may be issued from time to time under the Directive or the Acts.

FBO/GSP companies will not transfer any Hyperion Aviation Customer Data outside of the EEA except to the extent that it is strictly necessary for the proof of services and subject to Hyperion Aviation 's prior written consent. For the purpose of this section:

Definition	Description
Acts	Means any applicable legislation in an EU Member State implementing the Directive.
Directive	Means the European Data Protection Directive (95/46/EC).
EEA	Shall be deemed to include those countries in the European Economic Area and Switzerland.
Customer Data	Means Personal Data and Sensitive Data (in manual, electronic or other form) relating to any person which is obtained by Handling Agent in the course of providing Services to Hyperion Aviation whether such Personal Data or Sensitive Personal Data is obtained from Hyperion Aviation or any other person or entity.
Personal Data	Means any information relating to an individual data subject including but not limited to an individual's name, address, nationality, gender and passport details.
Process & Processing	Means any processing which may be performed on Personal Data or Sensitive Personal Data in respect of the provision of Services which may include but is not limited to obtaining, recording, using and holding Personal Data or Sensitive Personal Data.
Sensitive Personal Data	Means Personal Data, which is sensitive revealing racial or ethnic origin, political opinions, religious or philosophical beliefs (for example, any preference for a religious meal), trade- union membership, or concerning health (for example any medical condition requiring special needs or attention).

0.4.4 ISSUANCE FORMAT & DISTRIBUTION PROCESS

This GOM and Operations Manuals, are only published electronically in PDF format. Hyperion Aviation staff members can consult a copy on Hyperion Aviation in Centrik. External parties like Ground Handling Agencies and FBO/GSP's involved in handling Hyperion Aviation flights must download new versions of this Ground Operations Manual, via following URLs provided in the handling request:

https://hyperion.aero

Upon receipt of a handling request the FBO/GSP will check if the GOM version number has changed, and download a new copy, for review and internal distribution, when required.

In order to be able to open and read/use the GOM in PDF format, computers accessing it must have a PDF reading capable program installed, e.g. Adobe Acrobat Reader DC (free download). There are however a wide variety of software solutions available to serve every computing platform.

This GOM, published electronically in PDF format, is kept up-to-date to ensure the latest information is recorded, presented and available for all concerned parties needing it. Therefore, the GOM version published on the corporate intranet shall be considered the latest valid version available for consultation/download.

0.4.4.1 DISTRIBUTION LIST

National Aviation Authority (TM CAD)	N/A	PDF
NPGO	1	PDF

*Note: All FBO/GSP's involved in handling Hyperion Aviation flights are instructed to download (new versions of) this Ground Operations Manual, every time a flight handling request email is sent to the respective station(s). FBO/GSP's shall make available copies of this GOM manual to its operations, maintenance, safety and security, as appropriate, as well as to Handling Staff assigned to flights conducted by and on behalf of Hyperion Aviation.

NP Ground Operations will hold originally signed copies of this GOM.

0.4.5 **COPYRIGHT**

0.4.6 **DISCLAIMER**

The information contained in this GOM is subject to constant review in the light of changes to international, governmental and internal requirements and regulations.

Although every effort has been made to ensure accuracy, Hyperion Aviation, shall not be held responsible for loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof.

Furthermore, Hyperion Aviation, expressly disclaims all and any liability to any person, in respect to anything done or omitted, and the consequences of anything done or omitted, in reliance on the contents of this publication, that may be affected by errors, omissions, misprints or misinterpretation.

0.5 GROUND OPERATIONS MANUAL - ORGANISATION

This Hyperion Aviation Ground Operations Manual, is organized as follows:

- Chapter 0: Administration& Control
- Chapter 1: Passenger Handling Procedures
- Chapter 2: Baggage Handling Procedures
- Chapter 3: (Reserved for Future Use)
- Chapter 4: Aircraft Handling Procedures
- Chapter 5: Load Control & Aircraft Dispatch
- Chapter 6: Airside Safety Operational Oversight
- Chapter 7: Health, Safety and Environment - (HSE/OHS)
- Chapter 8: De-Icing & Winter Operations
- Chapter 9: Crew Resource Management & Human Factors & Team Performance
- Chapter 10: Security
- Chapter 11: Ground Operations Safety Management System - (SMS)
- Chapter 12: Accident & Emergency
- Chapter 13: Compliance Monitoring Program
- Chapter 14: Government Clearance Requirements
- Chapter 15: FBO/GSP Specific Instructions
- Chapter 16: Aircrafts
- Chapter 17: Aircraft Presentation
- Chapter 18: Hyperion Aviation Contacts
- Chapter 19: Forms
- Chapter 20: Units of Measurement - Conversion

0.5.1 **DOCUMENT CONTROL & PAGINATION**

The GOM header section layout is presented as shown hereunder.

The header section of each page contains:

- Hyperion Aviation Logos;
- Manual version number, i.e.; “Original”;
- Issue Date, i.e.; “01-01-18”;
- The Chapter Title of the respective page;
- Page Number.

0.6 MANUAL REVISIONS

The GOM, is issued on the authority of the company, Hyperion Aviation, and the NP Ground Operations (NPGO) will authorize all amendments to it, as required by the company and/or the relevant Civil Aviation Authority.

This GOM is regularly updated to ensure contents remain current. The edition number is depicted on the cover page of the GOM, and at the bottom of each individual page.

A temporary revision may be issued in order to meet urgent needs,. Handwritten amendments are not permitted.

0.6.1 TEMPORARY REVISIONS & GROUND OPERATIONS/HANDLING MEMO'S

A temporary revision affecting a procedure described in the GOM, or introducing a new procedure, may be issued in order to meet urgent needs. The format to be used is:

- the "Ground Operations Memo" if it affects all stations/airports

Both Memo folders can be found on the Hyperion Aviation Centrik system (manuals / GOM).

Stations will keep the respective (valid) Memo’s on file, making sure that all relevant staff has read & understood the contents, and have easy access for eventual future reference.

0.6.1.1 INFORMATION COMMUNICATION SYSTEM

An effective communication system ensures an exchange of relevant operational information among all company levels. Hyperion Aviation has put in place an uncomplicated system, which facilitates the reporting of operational deficiencies, hazards or concerns by FBO/GSP (external and internal) operational staff.

0.6.1.2 GOM BACKUP

In order to avoid loss of critical data, such as manuals, databases, documents, forms, emails, etc., Hyperion Aviation has an automatic backup system programmed to create backup files on a regular schedule, which ensures that data and records are not lost.

Retrieval of archived documents and records is possible through the respective Hyperion Aviation IT department(s).

0.7 RISK ASSESSMENT OF PROCEDURE CHANGES

The respective Hyperion Aviation NP Ground Operations or its designated representative will manage any change to a published GOM, and the contained procedures. Operational changes shall only be implemented if they increase safety or improve efficiency, in that order, and after having gone through a risk assessment procedure.

0.8 ENGLISH LANGUAGE

Within Hyperion Aviation the English language is used as the common language for operations manuals and documents.

This GOM, is written entirely in UK English. All standard communication between Hyperion Aviation Crews and FBO/GSP ground staff shall be in English, unless a clear and unambiguous exchange can be conducted in a common language.

The ability to read and communicate in English is required from all persons involved in operations with Hyperion Aviation.

0.8.1 GENDER

For brevity, the pronoun “He” is utilized. Where appropriate the pronoun “She” should be inferred or assumed.

0.8.2 RADIO TELEPHONY

0.8.2.1 PHONETIC ALPHABET

Note: reference: ICAO Annex 10, Volume II, UK CAP413

The use of a phonetic alphabet should reduce the risk of confusing letters. By using [Delta] and [Bravo] instead of [d] and
[b] the letters can be easily distinguished.

The phonetic alphabet for aviation is mainly used in two-way VHF radio / handheld radio communications, where bad signals, noise and foreign accents make communication difficult.

It is approved by ICAO, EASA and NATO as the standard for aircraft and radio communication. The words in the table below shall be used when individual letters are required to be transmitted on all radio transmissions. The syllables to be emphasised are shown in the pronunciation column in bold type.

Phonetic Alphabet:

A	Alpha	**AL** FAH
B	Bravo	**BRAH VOH**
C	Charlie	**CHAR** LEE
D	Delta	**DELL** TAH
E	Echo	**ECK** OH
F	Foxtrot	**FOKS** TROT
G	Golf	GOLF
H	Hotel	HOH **TELL**
I	India	**IN** DEE AH
J	Juliet	**JEW** LEE **ETT**
K	Kilo	**KEY** LOH
L	Lima	**LEE** MAH

M	Mike	MIKE
N	November	NO **VEM** BER
O	Oscar	**OSS** CAH
P	Papa	PAH **PAH**
Q	Quebec	KEH **BECK**
R	Romeo	**ROW** ME OH
S	Sierra	SEE **AIR** RAH
T	Tango	**TANG** GO
U	Uniform	**YOU** NEE FORM
V	Victor	**VIK** TAH
W	Whiskey	**WISS** KEY
X	X-ray	**ECKS** RAY
Y	Yankee	**YANG** KEE
Z	Zulu	**ZOO** LOO

0.8.2.2 NUMBERS

Transmission of numbers by VHF radio / handheld radio, shall, where necessary be transmitted by pronouncing each digit separately as follows. The following standard pronunciation shall be used to ensure clarity and consistency in transmissions. The syllables to be emphasised are shown in the pronunciation column in bold type.

0	ZERO
1	WUN
2	TOO
3	TREE
4	FOW ER
5	FIFE
6	SIX
7	SEV EN
8	AIT
9	NIN ER
Decimal	DAY SEE MAL
Hundred	HUN DRED
Thousand	TOU SAND

0.8.2.3 STANDARD WORDS & PHRASES

All operational communication with Hyperion Aviation via radiotelephony methods shall be made in English.

For standardisation and clarity, the following words and phrases shall be used in VHF radio and handheld radio communications with Hyperion Aviation aircraft as appropriate. The phrases shall be understood to have the meaning as given in the following table:

"ACKNOWLEDGE"	Let me know that you have received and understood this message.

"AFFIRM"	Yes
"APPROVED"	Permission for proposed action granted.
"BREAK"	Indicates the separation between messages.
"CANCEL"	Annul the previously transmitted clearance.
"CONFIRM"	I request verification of: (instruction, action, information).
"CORRECT"	True or accurate.
"CORRECTION"	An error has been made in this transmission (or message indicated). The correct version is...
"DISREGARD"	Ignore.
"HOW DO YOU READ"	What is the readability of my transmission?
"I SAY AGAIN"	I repeat for clarity or emphasis.
"NEGATIVE"	No; or Permission not granted; or That is not correct; or Not capable.
"NEGATIVE, I SAY AGAIN"	May be used if repeated incorrect read-backs are given, and additional emphasis is required.
"OUT"	This exchange of transmissions is ended and no response is expected.
"OVER	My transmission is ended and I expect a response from you.
"PASS YOUR MESSAGE"	Proceed with your message.
"READ BACK"	Repeat all, or the specified part, of this message back to me exactly as received.
"REPORT"	Pass requested information.
"REQUEST"	I should like to know... or I wish to obtain...
"ROGER"	I have received all your last transmission. Note: Under no circumstances to be used in reply to a question requiring a direct answer in the affirmative (AFFIRM) or negative (NEGATIVE).
"SAY AGAIN"	Repeat all, or the following part of your last transmission.
"SPEAK SLOWER"	Reduce your rate of speech
"STANDBY"	Wait and I will call you.
	Note: The caller would normally re-establish contact if the delay is lengthy. STANDBY is not an approval or denial.
"UNABLE"	I cannot comply with your request, instruction or clearance. Note: Unable is normally followed by a reason.
"WILCO"	I understand your message and will comply with it. (Abbreviated form for "will comply")
"WORDS TWICE"	As a request: Communication is difficult. Please send every word twice. As Information: Since communication is difficult, every word in this message will be sent twice.

0.9 WORDING CONVENTIONS

Following wording conventions are respected throughout this GOM:

- May / need not / not necessary: not required: indicates that compliance is optional.
- Note: indicates an important point about which the manual user needs to be made aware.
- Should / if possible / whenever possible: indicates that compliance is considered optional, but desirable.
- Shall / must / necessary / need / required: indicates that compliance is considered mandatory.
- Shall not / must not / may not: indicates that something is not allowed/permitted, or is forbidden.

0.10 HUMAN FACTORS SYMBOLS

Human factors symbols (caution and danger signs) are used throughout this GOM, to warn staff of risks and hazards associated with the said process and procedure(s).

The human factors symbols are represented in following table.

Sign	Category	Explanation
	Caution	Represents a general caution.

	Danger	Represents a personal danger for the person.
	Warning	Represents a danger for the person/action or environment (Aircraft/GSE). Also used to draw attention to very important information.

0.11 REFERENCES

Within this GOM, reference may be made to any of the following manuals and/or documents:

- Hyperion Aviation Ground Operations Manual,
- Hyperion Aviation Aircraft Documents,
- Aircraft Mass & Balance Manual (Contained within Aircraft AOM),
- Aircraft Manuals (AOM),
- Hyperion Aviation Operations Manual (OM),
- Hyperion Aviation Security Manual (SecM),
- IATA Airport Handling Manual (AHM),
- IATA Ground Operations Manual (iGOM),
- IATA Dangerous Good Manual (DGR),
- IATA ISAGO Manual,
- IATA IOSA Manual,
- SAE International AS6285 “Aircraft Ground De-Icing/Anti-Icing Processes”,
- SAE International AS6286 “Training & Qualification Program for De-Icing/Anti-Icing of Aircraft on the Ground”,
- EASA Part ORO - Organisation Requirements for Air Operations.

Note: SAE International Documents AS6285 & AS6286 both replace the former industry standard document published by the AEA, "Recommendations for De-Icing/Anti-Icing of Aeroplanes on the Ground", which was published for the last time during the 2016-2017 winter season.

0.12 FEEDBACK

While very effort has been made to ensure that this GOM reflects Hyperion Aviation operating policies, we welcome feedback and constructive criticism. This manual will undergo review and updating through the office of the respective NP Ground Operations.

To submit any feedback, it is essential to provide following details for your feedback to be considered:

- Name, First Name;
- Company Name;
- Position/Title;
- email address;
- Telephone number.

Reference should be made to the applicable chapter and section numbers, providing as much detail as possible.

0.13 ABBREVIATIONS & GLOSSARY OF TERMS

The following list provides a list of abbreviations utilized throughout this Ground Operations Manual. It is not a comprehensive list containing every possibly aviation industry abbreviation, but cover all those necessary for the proper use and interpretation of this GOM.

A	

A&E	Accident & Emergency (Hospital Unit)
A/C	Aircraft
AA	Actual Time of Arrival
AC	Alternating Current (Electrical Current)
ACARS	Aircraft Communication and Reporting System
ACK	Acknowledge
ACU	Air Conditioning Unit (GSE)
AD	Actual Time of Departure (Messaging)
AD HOC	For this situation
ADF	Aeroplane De-Icing Facility
ADP	Airport Driving Permit
ADV	Advise
AEA	Association of European Airlines (Trade Organisation)
AED	Automated External Defibrillators (Medical Apparatus)
AFM	Aviation Fleet Maintenance
AFT	Rear of Aircraft (as in fore (forward) and aft)
AFTN	Aeronautical Fixed Telecommunication Network
AHM	Airport Handling Manual (IATA Publication)
AIP	Aeronautical Info
ALT 1	Alternate Aerodrome/Airport
AM	Accountable Manager
AMC	Acceptable Means of Compliance
AMM	Aeroplane Maintenance Manual AN
ANO	Air Navigation Order
AOC 1	Air Operator Certificate
AOC 2	Airline Operators Committee
AOG	Aircraft on Ground (Technical definition for Unserviceable / Technical)
AP	Airport
API	Advance Passenger Information
APIS	Advance Passenger Information System
APRON	
APU	Auxiliary Power Unit (Aircraft Equipment)
ARR	Arrival
ASR	Air Safety Report
ASR/DG	Air Safety Report – Dangerous Goods
ASRS	Aviation Safety Reporting System
ASTM	American Society for Testing and Material
ASU	Air Starter Unit (GSE)
ATA	Actual Time Arrival (Messaging)
ATC	Air Traffic Control
ATD	Actual Time Departure (Messaging)
ATL	Airplane Technical Log
ATO	Approved Training Organisation
ATS	Air Traffic Service
AU	Audit
AVGAS	Aviation Gasoline
AVI	Live Animals
AVP	Airside Vehicle Permit

B	
BAG	Baggage
BAHA	Business Aircraft Handling Agency
BAL	Ballast
BCAA	Belgian Civil Aviation Authority
BCF	Bromochlorodifluoromethane Halon 1211 (Fire Extinguishing Agent)
BMP	Best Management Practice(s)
BTM	Bromotrifluormethane Halon 1301 (Fire Extinguishing Agent)
BTU	British Thermal Unit (Energy Unit)
C	
C of G	Centre of Gravity
C°	Celsius (Temperature Unit)
CAA	Civil Aviation Authority
CAME	Continuous Airworthiness Management Exposition
CANX	Cancelled
CAP	Civil Aviation Publication (UK CAA)
Capt	Commander (Cockpit Crew)
CAT	Commercial Air Transport
CB	Circuit Breaker
cbm	Cubic Metre(s) (Volume Unit)
CBT	Computer Based Training
CCW	Counter clock wise
CDC	Centres for Disease Control (USA)
CEO	Chief Executive Officer
CFP	Computerised Flight Plan
CG	Centre of Gravity
CHD	Child
CHIP	Chemicals (Hazard Information and Packaging for Supply)
CHRC	Criminal History Record Check
CHTR	Charter
cl	Centilitre(s) (Unit of Volume)
CLP	Classification
CM	Centimetre(s) (Length/Distance Unit)
CMM	Compliance Monitoring M
CO2	Carbon Dioxide (Chemical Compound)
COMAT	Company Material(s)
CONFIG	Configuration
COO	Chief Operating Officer
Corr	Correct(ion)
CPAP	Continuous Positive Airway Pressure (Medical Apparatus)
CPR	Cardiopulmonary Resuscitation (Medical Technique)
CPT	Captain (Cockpit Crew)
CPY	Copy
CRM	Crew Resource Management
CSR	Cabin Safety Report
CTO	Chief Technical Officer
cu^3	Cubic Metre(s) (Volume Unit)

CW	Clock Wise (Direction)
CX	Cancel
D	
Db	Decibel (Sound Unit)
DCS	Departure Control System
DEL	Delay
DEP	Departure
DEST	Destination
DEV	Deviation
DfT	Department for Transport (UK)
DG	Dangerous Goods
DGR	Dangerous Goods (Generic Term)
DIR	Direction
DIV	Diversion
DOA	Approved Design Organisations (EASA)
E	
e.g.	Example Given
EA	Estimate Time of Arrival (Messaging)
EASA	European Aviation Safety Agency
eASR	Electronic ASR
EBAA	European Business Aviation Association
EC [1]	European Community
EC [2]	European Commission
ECAC	European Civil Aviation Conference
ECJ	Embraer Corporate Jet
ECS	Environmental Control System
ED	Estimated Time of Departure (Messaging)
EET	Estimated Elapsed Time
EFB	Electronic Flight Bag
EIC	Equipment in Compartment
EMS [1]	Emergency Medical Services
EMS [2]	Environmental Management System
END	Endurance
ERA	Equipment Restraint Area (Ramp)
ERJ	Embraer Regional Jet
ERM	Emergency Response Manual
EROPS	Extended Range Operations
ERP	Emergency Response Plan(ning) (Manual)
ETA	Estimate Time Arrival (Messaging)
ETD	Estimate Time Departure (Messaging)
ETOPS	Extended Twin Engine Operations
EU	European Union
EXT	External
F	

F	Female
F&B	Food & Beverage
F°	Fahrenheit (Temperature Unit)
FAA	Federal Aviation Administration (USA CAA)
FBO	Fixed Base Operator (Handling Agent)
FCST	Forecast
FLT	Flight
FMP	Fatigue Management Programme (IS-BAH)
FO	First Officer (Cockpit Crew)
FOB	Fuel on Board
FOD	Foreign Object Damage
FOM	Flight Operations Manager
G	
H	
I	
iGOM	IATA Ground Operations Manual (Standard)
imp gal	Imperial Gallon (Unit of Volume/Quantity)
in	Inch(es) (Length/Distance Unit)
in²	Square Inch(es) (Area Unit)
INAD	Inadmissible Passenger
INF	Infant
INFO	Information
INTL	International
IOSA	IATA Operational Safety Audit
ISA	International Standard Atmosphere
ISAGO	IATA Safety Audit for Ground Operations
IS-BAH	EBAA/NBAA Industry Standard for
IS-BAO	EBAA/NBAA Industry Standard for
ISO	International Standardization Organisation
J	
K	
kg	Kilogram(s) (Mass Unit)
km	Kilometre(s) (Length/Distance Unit)
kPA	Kilopascal
kph	Kilometres per Hour (Velocity Unit)
KPI	Key Performance Indicators
kt	Knot (Speed Unit)
KTS	Knot (Speed Unit)
L	

l 1 L 2	Litre(s) (Unit of Volume/Quantity) Local (Time, Local)
LAG	Liquids, Aerosols and Gels (Security
LAR	IATA Live Animals Regulations (IATA
lb.	Pound (Mass Unit)
lbs.	Pound(s) (Mass Unit)
LDM	Load Message (Messaging)
LEO	Law Enforcement Officer (Police)
LH	Left Hand
LMC	Last Minute Change(s)
LO	Low
LOC	Local
LPG	Liquid Petroleum Gas
LT	Local Time
LVO	Low Visibility Operations
LVP	Low Visibility Procedures
M	
m	Meter(s) (Length/Distance Unit)
M	Male
M&B	Mass and Balance (Load sheet)
m^2	Square Metre(s) (Area Unit)
MAAS	Meet and Assist (passengers)
MAC	Mean Aerodynamic Chord (Weight &
MAX	Maximum
MECH	Mechanic
Medif	Medical Information Form
MEL	Minimum Equipment List
MET	Meteorological Information
Mg	Milligram (Mass Unit)
mg/l	Milligram per Litre (Mass Unit)
MHz	Megahertz
MIC	Microphone
MIN [1]	Minute(s) (Unit of Time)
MIN [2]	Minimum
MISC	Miscellaneous
N	
O	
P	
PPD	Personal Protection Detail (Bodyguard Team)
ppm	Parts per Million (Mass Unit)
PPO	Personal Protection Officer (Bodyguard)
PPU	Powered Push Unit (GSE)

PRM	Person with Reduced Mobility
PROB	Probability
PROP	Propeller
psi	Pounds per Square Inch (Pressure Unit)
PSM	Passenger Service Message (Message
PTT	Push to Talk
PWR	Power
PX	Passenger(s)
Q	
QC	Quality Control
QoS	Quality of Service
R	
RCVD	Received (Messaging)
RE	Regarding
REACH	Registration, Evaluation, Authorisation &
REF	Reference
REG	Registration
REQ	Request (Messaging)
RFP	Request for Proposal
RFQ	Request for Quotation
RH	Right Hand
RPM	Revolutions per Minute (Engine)
RSA RT	Restricted security Area Radio Telephony
RWY	Runway
S	
SACA	Safety Assessment of Community Aircraft
SAE	Society of Automotive Engineers
SAFA	Safety Assessment of Foreign Aircraft
SAG	Safety Action Group
SANA	Safety Assessment of National Aircraft
SAR	Search and Rescue
SARP	Standards and Recommended Practices
SATCOM	Satellite Communication
SCH	Schedule
SCP	Special Categories of Passenger
SDS	Safety Data Sheet (DGR)
SecM	MLT Security Manual
SEP	Safety and Emergency Procedures
SGHA	Standard Ground Handling Agreement
SI	Supplementary Information (Messaging)
SITA	Société Internationale de Télécommunications Aéronautiques
SLA	Service Level Agreement
SM	Safety Manager
SMM	Safety Management Manual

SMS	Safety Management System
SOP	Standard Operating Procedure(s)
SPI	Safety Performance Indicator(s)
SPPR	Single Point Pressure Refuelling
SRB	Safety Review Board
SRM	Safety Risk Management
T	
U	
V	
VIP	Very Important Person
VIS	Visibility
VVIP	Very Important Person (Highest Category)
W	
wh	Watt Hour (Energy Unit) WCHR Wheelchair (General)
WHO	World Health Organisation (UN)
WSU	Water (Potable) Service Unit
WTMD	Walk Through Metal Detector
WX	Weather
X	
Xbag	Excess Baggage
Y	
Z	
Z	Zulu (Time - UTC)
Zulu	Zulu (“Z” Time - UTC)

0.14 DEFINITIONS

The following list provides a list of definitions and/or common terminology utilized throughout the aviation industry and this Ground Operations Manual. It is not a comprehensive list containing every possibly aviation industry definition, but cover all those necessary for the proper use and wider interpretation of Hyperion Aviation ground operations.

Accident Precursor	Event(s) which, without appropriate mitigation, can result in Undesirable Events, incidents and accidents.

Accountability	The obligation or willingness to accept responsibility for the execution or performance of an assigned function, duty, task or action; implies being answerable to a higher authority for ensuring such responsibility is executed or performed.
Accountable Manager	A person acceptable to the Authority who has authority for ensuring that all activities can be financed and carried out to the standards required by the Authority, and additional requirements defined by the operator.
Adhoc	Flights not rostered (one-off charters).
Adult	A person of an age of 12 years and above.
Aerodrome	Airport, A defined area on land or water intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
Aerodrome Control Tower	A unit established to provide air traffic control (ATC) service to aerodrome traffic
Aileron	Part of Aircraft Wing (Controlling balance and turning).
Aeronautical Information Publication (AIP)	A publication issued by or with the authority of a state and containing aeronautical information of a lasting character essential to air navigation.
Air Operator Certificate	A certificate authorizing an operator to carry out specified commercial air transport operations.
Air Traffic	All aircraft in flight or operating on the manoeuvring area of an aerodrome.
Air Traffic Control Clearance	Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.
Air Traffic Control Service	A service provided for the purpose of: 1. preventing collisions: a. between aircraft and, b. on the manoeuvring area between aircraft and obstructions. 2. expediting and maintaining an orderly flow of air traffic.
Air Traffic Control Unit	A generic term meaning variously, area control centre, approach control office and aerodrome control tower.
Air Traffic Service	A generic term meaning variously, flight information service, alerting service, air traffic advisory service and air traffic control service.
Aircraft Ground Movement	Operations associated with moving of an aircraft on the ground, to include aircraft taxi, pushback, aircraft power-back, aircraft power-out (power-in), or aircraft towing.
Aircraft Handling	Activities associated with servicing of an aircraft on the ground, including aircraft access, equipment attachment and removal, and operation of vehicles and equipment in the immediate vicinity of the aircraft.
Aircraft Left	Left hand side of the Aircraft (Portside).
Aircraft Marshalling	The detailed direction of an aircraft from outside by a marshaller who is in a position to see the aircraft exterior as well as areas on and adjacent to the path over which the aircraft is moving.
Aircraft on Ground	The highest priority designation to process a requirement for a spare part or many spare parts and/or maintenance action. Indicates that an aircraft is unable to continue service until the appropriate action is taken.
Aircraft Operations	All activities associated with the operation of an aircraft on the ground and in the air.
Aircraft Pushback	Rearward moving of an aircraft from a parking position to a taxi position by use of specialized ground support equipment. • Nose gear-controlled pushback includes either the tow-bar method, where the rearward movement and steering of the aircraft is controlled by a tractor and tow bar attached to the nose gear, or the tow-bar-less method, where a tractor is attached directly to the nose gear. • Main gear-controlled pushback utilises a tractor that grasps the aircraft main gear tyres to provide rearward movement, and directional control is provided from the flight deck through use of the nose-wheel steering system.
Aircraft Registration	A unique alpha/numeric designation for an aircraft. (Equivalent Term: Tail Number)
Aircraft Right	Right hand side of the aircraft (Starboard).
Aircraft Security Check	An inspection of the interior of an aircraft to which passengers may have had access, and an inspection of the hold for the purposes of discovering suspicious objects, weapons, explosives or other dangerous devices.
Aircraft Security Search	A thorough inspection of the interior and exterior of the aircraft for the purpose of discovering suspicious objects, weapons or other dangerous devices, articles and substances.

Aircraft Stand	A designated area on an apron intended for parking an aircraft. (Equivalent Terms: Bay, Stand, Parking Stand)
Airfoil	An air foil or aerofoil is the shape of a wing, blade (of a propeller, rotor, or turbine), as seen in cross-section.
Airport Operations Area	All restricted ground areas of an airport, including taxiways, runways, loading ramps and parking areas.
Airport Terminal	All buildings used for arrival and departure handling of aircraft.
Airside	Area(s) of an airport beyond custom, immigration and security checkpoint(s) that usually constitute the security-restricted area; opposite of “landside”.
Airside Safety Training	Training designed to ensure an acceptable level of safety by personnel in the performance of duties in the airside areas of an airport.
Airway	A control area or portion thereof established in the form of a corridor equipped with radio navigation aids.
Airworthiness	A quality that conforms to aircraft type design or properly altered condition for safe operations and: • in the case of an aircraft, is fitness for flight; • in the case of aircraft engines, components or parts, when fitted to an aircraft will maintain the aircraft's fitness for flight.
Aisle	Gangway between seats in cabin of aircraft.
Alternate Airport	An airport to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the airport of intended landing. Alternate airports include the following: • Take-off alternate – an alternate airport at which an aircraft can land, if necessary, shortly after take-off when it is not possible to return to the airport of departure. • En-route alternate – an airport at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route. • ETOPS en-route alternate – a suitable and appropriate alternate airport at which an aircraft would be able to land after experiencing an engine shutdown or other abnormal or emergency condition while en route in an ETOPS operation. • Destination alternate – an alternate airport to which an aircraft may proceed should it become either impossible or inadvisable to land at the airport of intended landing.
Altitude	The vertical distance of a level measured from mean sea level.
Anti-Collision Light (or Anti-Collision Beacon)	Red Strobe (flashing) beacon (light) on the underside and top of the aircraft fuselage. (Equivalent Terms: Rotating Beacon)
Anti-Icing	In the case of ground procedures, means a procedure that provides protection against the formation of frost or ice and accumulation of snow on treated surfaces of the aircraft for a limited period of time (hold-over time).
Apron (= Tarmac, Ramp, Parking Area)	A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.
Authority (Regulatory)	A government agency or other administrative body that exercises regulatory or oversight control over operations or activities within a defined jurisdiction.
Baggage	Equivalent to the term “luggage”. Such articles, effects and other personal property of a passenger as are necessary or appropriate for wear, use comfort, or convenience with his trip. Unless otherwise specified, it includes both checked and unchecked baggage.
Baggage Reconciliation	A security process that matches a passenger with his or her checked baggage, and ensures the passenger and baggage travel together on the same aircraft.
Ballast	Deadload weight carried to achieve a particular aircraft balance condition.
Block (time)	The time, i.e.; the block-time or similarly on-blocks or off-blocks time, that represents the time the aircraft arrives at the stand and shuts down the engines at the completion of a flight sector (on-blocks), or the time at which the aircraft commences pushback (or taxi if power-in or power-out) at the commencement of a flight sector being the “off-blocks” time.
"Blue Ice"	When flying at altitude, leaking waste fluid will form as “blue ice” (a term derived from the blue colour of the de-germ products).
Boarding	Equivalent term “embarkation”, means passengers entering an aircraft.
Bulk	Loading piece by piece.
Bulkhead	Aircraft partition (rigid) or wall within the cabin, diving one part of the aircraft from another.
Cabin	A compartment where passenger seats are installed

Cabin Altitude	Pressure inside the cabin (expressed as the equivalent atmospheric pressure at a given altitude – e.g. cabin pressurized to 10.000ft).
Cabin Baggage	Baggage that is retained in the custody of a passenger to bring on an aircraft. (Equivalent Terms: Hand Baggage, Unchecked Baggage, Carry-on Baggage)
Cabin Crew	A licensed crew member who performs, in the interest of safety of passengers, duties assigned by the Operator or the pilot- in-command of the aircraft, but who shall not act as a flight crew member. (Equivalent Terms: Flight Attendant, Cabin Attendant) *Note: Not to be confused with a Commercial Attendant.*
Cabin Section	A division of the cabin into zones for the purpose of balance.
Captain	A person qualified to be the pilot-in-command of an aircraft. (See: Pilot-in-command)
Cargo	Any goods carried on an aircraft which are covered by an Air Waybill.
Category	The nature of the load.
Catering	Catering is the business of providing food service at a remote site or a site such as a hotel, (airline) aircraft, or other location(s).
Ceiling	The height above the ground or water of the base of the lowest layer of cloud below 6000m (20000ft) covering more than half the sky.
Centre of Gravity	The C of G of an aircraft is the point at which an aircraft would balance if it were possible to suspend it at that point.
Child	A child is a minor between 2 and 12 years old (has reached his 2nd birthday, but has not reached his 12th birthday) If the minor reaches his birthday during the journey, he will be considered a child as of the birthday.
Chocks	Wedges used to prevent aircraft movement in the event of brake failure – placed in front and/or behind aircraft wheels (tyres) (nose-gear and/or main gear(s)).
Cloud Base	The height of the base of the lowest observed or forecast cloud element in the vicinity of an aerodrome or operating site or within a specified area of operations, normally measured above aerodrome elevation or, in the case of offshore operations, above mean sea level.
Cockpit	That part of an aircraft from which the crew control the aircraft.
Cockpit Crew	Persons operating the flight in the cockpit.
Commercial Attendant	Persons performing service duties on the flight other than in the cockpit. Not responsible for safety tasks on-board. Note: Not to be confused with (licensed) Cabin Crew.
Compartment	A space designated within a hold.
Compliance	To fulfil, meet or be in accordance with requirements specified in standards or regulations.
Compliance Monitoring Manager	The individual assigned by an operator with the duties and responsibilities for management of the compliance monitoring (quality assurance) function within a management system.
Contingency	An event that may but is not certain to occur in the future.
Contractor	An organization providing products or services described in a formal contractual agreement against which products and/or services are provided, and the contractor's activity is not developed under the buyer's quality system.
Controlled Document	A document that is subject to processes that provide for the positive control of content, revision, publication, distribution, availability and retention.
Co-Pilot	(See: Second-in-command)
Corrective Action	Action to eliminate the (root) cause(s) and prevent recurrence of an existing (detected) non- conformance or an existing (detected) undesirable condition or situation.
Crew Baggage	Baggage of which is the property of the operating crew, and which is separately identified.
Crew Member	A person assigned by an operator to perform duties on board an aircraft.
Crew Resource Management	The effective use of all the resources available to a flight crew, including each other, to achieve a safe and efficient flight.
Cruise / Cruising Level	Altitude for the majority of the flight.
Damp Runway	A runway where the surface is not dry, but when the moisture on it does not give it a shiny appearance.
Dangerous Goods	Articles or substances which are capable of posing a significant risk to health, safety or property when transported by air and which are classified as such in the IATA Dangerous Goods Regulations.
Dangerous Goods Accident	An occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property damage.

Dangerous Goods Incident	An occurrence other than a dangerous goods accident associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained; Any occurrence relating to the transport of dangerous goods which seriously jeopardizes an air- craft or its occupants.
Dangerous Goods Regulations	A document (manual) published by IATA in order to provide procedures for the shipper and the operator by which articles and substances with hazardous properties can be safely transported by air on commercial flights. Information in the DGR is derived from the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions).
De-Catering	De-catering is the process of removing all regulated garbage from the aircraft at the initial port of entry.
De-Icing	In the case of ground procedures, means a procedure by which frost, ice, snow or slush is removed from an aircraft in order to provide uncontaminated surfaces.
De-Icing/Anti-Icing	A process that combines both de-icing and anti-icing, which can be performed in one or two steps.
De-Icing/Anti-Icing Program	A program approved by the Authority that requires an Operator to comply with the Clean Aircraft Concept. A typical program includes a management plan, de- icing/anti-icing procedures; holdover times, aircraft inspection and reporting procedures, and training and testing.
Deadhead	A crewmember positioning on duty, travelling as a passenger.
Deadload	Baggage, cargo, ballast and equipment in compartments not included in dry operating weight of the aircraft.
Deck	A structural floor levels. For aircraft having one structural level only, this floor level shall be referred to as the "main deck". For aircraft having more than one structural floor level, the different floor levels shall be referred to as "lower deck", “main deck” and “upper deck", starting from bottom to top.
Defect	Any confirmed abnormal condition of an item whether or not this could eventually result in a failure.
Density	The relationship of weight to volume, i.e. kg. per cu.ft3. or kg/cu.m3.lb. per cu.ft3. or lb./cu.m3).
Departure Airport	The airport from which the aircraft last departed, using the same flight number.
Departure Control System	An automated method of performing check-in, capacity control, load control, and dispatch of flights.
Descent	Flight to a lower altitude/flight level.
Destination Airport	Ultimate intended terminating airport of a flight.
DETRESFA	The code word used to designate a distress phase.
Disarmed	Door with an escape slide fitted with automatic deployment disabled (set to manual).
Discrepancy	An item discovered during an audit that appears to be contrary to applicable regulations and/or company procedures.
Disruptive Passenger	A passenger who fails to respect the rules of conduct on board aircraft or to follow the instructions of crew members, and who thereby disturbs the good order and discipline on board aircraft.
Domestic Operations	Flights conducted between airports within the territories of one state.
Downwind	Direction in which the wind is blowing.
Dry Runway	A runway which is neither we nor contaminated, and includes those paved runways which have been specially prepared with grooves or porous pavement and maintained to retain ‘effectively dry’ braking action even when moisture is present.
Dry Stores	Non-perishable items – catering – i.e. tea, coffee, sugar, napkins, etc., loaded in the aircraft galleys.
Elevation	The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.
Elevator	A moveable horizontal surface attached to the back of the stabilizer.
Embarkation	(See: “Boarding”)
En Route	Equivalent to “Through". Movement or point between point of departure and point of destination.

Endurance	The length of time an aircraft can continue flying under given conditions without refuelling.
Engine No 1 (Twin Engine)	For ground staff facing the aircraft nose, the engines are identified from right to left. Engine No 1 is the engine on the right.
Engine No 2 (Twin Engine)	For ground staff facing the aircraft nose, the engines are identified from right to left. Engine No 2 is the engine on the left.
Engine No 1 (Four-Engine)	For ground staff facing the aircraft nose, the engines are identified from right to left. Engine No 1 is the outer engine on the right. (A340-600 aircraft only)
Engine No 2 (Four-Engine)	For ground staff facing the aircraft nose, the engines are identified from right to left. Engine No 2 is the inner engine on the right. (A340-600 aircraft only)
Engine No 3 (Four-Engine)	For ground staff facing the aircraft nose, the engines are identified from right to left. Engine No 3 is the inner engine on the left. (A340-600 aircraft only)
Engine No 4 (Four-Engine)	For ground staff facing the aircraft nose, the engines are identified from right to left. Engine No 4 is the outer engine on the left. (A340-600 aircraft only)
Equipment in Compartment	Equipment which is carried on the aircraft but which is not manifested and which is not elsewhere included in the weight composition, such as additional flight kit.
Extended Range Operations	An approval granted by the Authority to operate an aircraft type within a certain distance in flying time to an alternate airport.
Estimated Elapsed Time	The estimated time required to proceed from one significant point to another.
Evaluation	The process of determining whether an item, individual or activity meets specified criteria; when used in conjunction with training, refers to the process by which an evaluator or instructor determines how well a student's performance fulfils the course competencies; processes may include a demonstration of knowledge, proficiency and/or competency as appropriate.
Extended Twin Engine Operations	The operation of multiengine aircraft on routes that are, at some point, more than the flying time from a landing airport as specified by the State; ETOPS requires regulatory approval.
FBO	Contracted organization, performing services necessary for an aircraft's arrival at, and departure from, an airport, other than air traffic services.
Ferry (Flight)	A positioning flight (i.e. operated empty of commercial load).
Filed Flight Plan	The flight plan as filed with an ATS unit by the pilot or his designated representative, without any subsequent changes.
Finals	Stage of the flight, where the aircraft is on final approach.
First Officer	A licensed and qualified pilot that assists or relieves the pilot-in-command, not to include a pilot that is on board the aircraft for the sole purpose of receiving flight instruction. (Equivalent Terms: Co-pilot, Second in Command)
Flap(s)	Part of the aircraft (wings) providing for greater flight control at slower speeds.
Flight	The operation of an aircraft between two or more points.
Flight Crew	The flight crew members essential to the operation of an aircraft, the number and composition of which shall not be less than that specified in the operations manual and shall include flight crew members in addition to the minimum numbers specified in the flight manual or other documents associated with the certificate of airworthiness, when necessitated by considerations related to the type of aircraft used, the type of operation involved and the duration of flight between points where flight crews are changed.
Flight Deck	The area of an aircraft designed to enable the pilot(s) to operate the aircraft, which contains the required instrumentation, controls, systems and equipment, and is separated from other areas of the aircraft. Equivalent Terms: Flight Crew Compartment, Cockpit.)
Flight Level	A surface of constant atmospheric pressure which is related to a specific pressure datum, 1013 hectopascal (hope), and is separated from other such surfaces by specific pressure intervals.
Flight Number	The alpha-numerical designator of a flight, prefixed by a two-letter or three-character designator.
Flight Plan	Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Flight Time	The total time from the moment an aircraft first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight. • Out Time – the time a flight commences (aircraft first movement). • Off Time – the time of take-off. • On Time – the time of landing. • In Time – the time the flight is terminated (aircraft comes to rest). (Equivalent Terms: Block Time)
Foreign Object Damage	Damage to any portion of the aircraft caused by impact or ingestion of birds, stones, hail or other debris. (Equivalent Terms: Foreign Object Debris)
Forward	Front of aircraft – also “fore” (as in “fore” and “aft”).
Fuel	The following terms refer to fuel values used during the flight planning process: • Taxi fuel – the fuel required from engine start to the start of take-off roll. • Trip Fuel – the aggregate fuel required for a planned flight calculated from engine start at the point of departure and including as a minimum the fuel necessary for: taxi out, take-off, climb, en-route, descent, approach, landing and taxi in. Trip fuel takes into consideration an appropriately planned ATC routing (considering weather avoidance requirements if necessary) at an optimum altitude and speed schedule for the winds, temperatures and weight of the aircraft. Trip fuel does not include alternate, holding, contingency, reserve, additional, and/or tanker fuel. • Take-off Alternate Fuel – the fuel required for diversion after take-off to an approach and landing at a designated take-off alternate whenever the weather conditions at the airport of departure are at or below the applicable airport operating landing minima or other operational conditions exist that would preclude a return to the departure airport. • En-route Alternate Fuel – the fuel required for a diversion to an approach and landing at a designated en- route alternate after an aircraft experiences an abnormal or emergency condition while en-route. • ETOPS En-route Alternate Fuel – the fuel required for a diversion to an approach and landing at a designated ETOPS en-route alternate at which an aircraft would be able to land after experiencing an engine shutdown or other abnormal or emergency condition while en route in an ETOPS operation. • Destination Alternate Fuel – the fuel required for a missed approach at the destination and diversion to an approach and landing at a designated alternate airport via an appropriate ATC routing and under conditions of altitude and fuel consumption designated by the Authority. • Holding Fuel – the fuel that is required for anticipated and/or possible air traffic, weather, low visibility / instrument landing conditions, or other in-flight delays. Fuel that is planned for anticipated possible air traffic, weather, or other inflight delay; • Contingency fuel – the fuel, in addition to trip fuel, that is required for contingencies such as un-forecast en-route variations in winds, temperatures and flight routing. • Reserve fuel – the required fuel, in addition to trip fuel, that is not planned for normal use but remains available for unplanned events in the case where all other useable fuel beyond trip, contingency, holding and alternate fuel has been consumed. This fuel is to be used only when there is no other safer alternative and is often defined by the Authority. • Additional Fuel – the fuel that is transported for operational purposes such as fuel carried to meet MEL requirements, or as ballast for weight and balance purposes (also referred to as unusable fuel). • Tanker Fuel – the fuel transported for economic reasons or for Operator convenience (e.g. due to price / availability at destination).
Fuel Jettison	Process of removal of excess fuel from the aircraft.
Fuelling	Fuelling and defueling, aircraft tank calibration, aircraft fuel flow tests and the draining of aircraft tanks.
Fuelling Safety Zone	An area with associated restrictions that is established on the ramp around the aircraft fuelling receptacles, tank vents, and around the fuelling equipment, during aircraft fuelling operations.
Fuselage	Body of an aircraft.
Galley	The integral kitchen area of an aircraft; used for meal preparation and/or pantry/catering storage.
Gash bag	Rubbish/waste bag(s).
General Declaration	A standard document giving certain details about a flight required for aircraft clearance by government authorities in certain countries.
Glide Path	The angle of descent during an aircraft’s approach to land.

Ground Emergency Service Personnel	Any ground emergency service personnel (such as police- men, firemen, etc.) involved with emergency medical services (EMSs) and whose tasks are to any extent pertinent to EMS operations.
Ground Handling	Services necessary for an aircraft's arrival at, and departure from, an airport, other than air traffic services.
Ground Handling Agent (Company)	Company with a corporate body status which obtained a licence to perform ground handling services at airport(s).
Ground Support Equipment	Any motor vehicle or piece of equipment, fixed, mobile or towed, that's use is exclusively for aircraft ground handling operations.
Ground Handling Company/Agent	A Company/organization appointed by an airline to perform ground handling functions.
Hangar	Covered parking space for aircraft, usually enclosed.
Hard Copy	A printed copy of an electronically transmitted text.
Hazard	A condition, object, activity or event with the potential of causing injuries to personnel, damage to equipment or structures, loss of material, or reduction of the ability to perform a prescribed function.
Heading	The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North.
Hold	A space confined by ceiling, floor, walls and bulkhead, used for carrying load: baggage (and cargo & mail). Usually divided into compartment within each hold on large aircraft (airliners).
Hold Baggage	Any baggage that is carried in the hold of passenger aircraft.
Hold-Over Time	The estimated time the anti-icing fluid will prevent the formation of ice and frost and the accumulation of snow on the protected (treated) surfaces of an airplane.
Holding	Aircraft circling in the vicinity of the airport of destination, awaiting turn in the queue to land, or, on the taxiway waiting for take-off.
Hotac	Hotel Accommodation.
Human Factors (Principles)	Principles applied to the design of equipment, systems, processes and/or procedures, which take into account human capabilities and limitations, for the purpose of optimizing human performance and reducing human error.
Human Performance	Human capabilities and limitations that have an effect on the safety and efficiency of aeronautical operations.
ICAO Annexes	Additional sections to the ICAO Convention, which are guidelines provided for the various national aviation authorities for use in developing the civil aviation rules and regulations that govern flight operations in their respective states.
Inadmissible Passenger	A passenger who is refused admission to a country or is refused onward carriage (e.g. lack of a visa or expired Passport).
INCERFA	The code word used to designate an uncertainty phase.
Incident	An occurrence other than an (aircraft) accident, associated with the operation of an aircraft, which affects or could affect the safety of operations. (Equivalent Terms: Safety Related Event)
Infant	A person under the age of two years.
Inspection	To look upon, to view closely and critically, to scrutinize, to determine the condition, accuracy and efficiency of a part or unit, all to the end that equipment shall not be used unless it is in the best of condition and complies with an approved standard. Equivalent Terms: Inspection, Examination
Inspection System	A system that requires the examination of an aircraft or aircraft component to establish conformity with an approved standard. Equivalent Terms: Quality Control, QC
Instructor	A person who imparts knowledge or teaches practical skills through demonstration, direction, tutoring, training, drills, and/or exercises. Instructors may utilize testing, checking, assessment or evaluation of activities as a means for determining proficiency or competency.
Integral Airstairs	Stairway contained within or built into the aircraft fuselage, which may be deployed on the ground to provide a means for persons to enter or exit the aircraft.
International Operations	Flights conducted from an airport in the territory of one state to an airport in the territory of another state. Equivalent Terms: International Flights
Jump Seat	A seat located at the rear of the flight deck and/or in the cabin or cargo compartment for use by crew members, supernumeraries, cargo attendants, observers or other approved persons. *Note: not available on all Hyperion Aviation aircraft.*

Jump Seat Occupant	A person that is transported on an aircraft jump seat.
Landing Gear	The aircraft undercarriage.
Leading Edge	Foremost position of the wing, located at the very front of the wing.
Left	To be understood as Left hand side in the direction of flight. (Equivalent Terms: Port).
Leg/Sector (Segment)	More formally, a Leg is an individual component of a journey whereas a sector is a starting point and a stopping point, which may cover a number of legs in between.
Liaise	Communicate and maintain contact.
Likelihood	The measure of how likely something is to happen. The Oxford dictionary defines likelihood as "the state or fact of something's being likely". Likelihood varies between 0 and 1 and can also be assessed using terminology such as 'very low, low, medium, high and very high'.
List of Effective Pages	Detailed list of manual pages and their current revision status.
Load	Any item carried in an aircraft other than is included in the basic operation weight.
Load Control	A function to ensure the optimum utilization of the aircraft capacity and distribution of load as dictated by safety and operational requirements.
Load Planning	A part of load control. (Planning Phase)
Loading	Stowing load, or ULDs, on board the aircraft in accordance with loading instructions.
Loading Instruction	Instructions given by Load Control to the person responsible for the aircraft loading.
Load sheet	Document detailing the aircraft load by weight and distribution including all traffic load, company stores, fuel, oil, etc. and specifying the aircraft centre of gravity, mean aerodynamic chord (%MAC) at both take-off and zero-fuel weight and specifying the actual weights relative to maximum or regulated: take-off weight, zero-fuel weight, landing weight, taxi weight, total fuel (load sheet fuel), and trip fuel or burn-off. (Often also contains the trim-sheet).
Local (Time)	Usually used to indicate the time of day or night at the location of departure or arrival as in "local time" or by specifying a time followed by the word "local" (GMT and/or UTC is referred to as "Zulu" time).
Low Visibility Procedures	Procedures applied at an aerodrome for the purpose of ensuring safe operations during lower than Standard Category I, other than Standard Category II, Category II and III approaches and low visibility take-offs.
Maintenance	Those actions required for restoring or maintaining an aircraft, aircraft engine or aircraft component in an airworthy and serviceable condition, including repair, modification, overhaul, inspection, replacement, defect rectification and determination of condition.
Management of Change	A documented process to identify external and internal changes that may have an adverse (or positive) effect on safety. This process uses the existing hazard identification, risk assessment and mitigation processes.
Management System	The collective body of managers and other associated managerial elements that provide for direction, oversight and control of an organization.
Manifest	List of passengers on-board. International flights must follow the requirements of ICAO, specified in the Annex 9 to the Chicago Convention (1944), specifically in Appendix 2. Other relevant documents are also contained in the other Appendices to Annex 9 (e.g. General Declaration)
Marshaller	The person that performs aircraft marshalling during aircraft ground movement operations.
Medical Information Form	The MEDIF is the name given to the forms used by airlines to manage passengers with reduced mobility. It has two attachments: • Attachment A (Information Sheet for Passengers Requiring Special Assistance), and, • Attachment B (Information Sheet for Passengers requiring medical clearance). Attachment A: contains details of the air itinerary of the passenger and describes the special arrangements or assistance required by the passenger. The responses given to the questions in Attachment A will determine if a medical clearance is required by the airline. A medical clearance is required by the airline for passengers with recent and/or unstable medical conditions. Attachment B: provides the airline with the specific medical data on the passenger and the special arrangements recommended by the physician.
Message	Where quoted it is assumed that the fastest possible means of sending a message will be used. This refers to SITA, telex or data link.
Meteorological Information	Meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions.

Mishandled Baggage	Checked baggage that has been involuntarily or inadvertently separated from passengers or crew members.
Mitigation	The action of reducing the severity, seriousness, or painfulness of something.
Mobile Plant	While there is no definition of powered mobile plant in the legislation it can be described as any machine that is self-propelled and controlled by an operator. It includes: • industrial lift truck (forklifts); • mobile cranes; and, • earth-moving machinery.
Movement	The arrival or departure of an aircraft.
Movement Area	The runway, apron and taxiways and the near surroundings, made of paved surface (asphalt, concrete, soil) which are used for moving and parking of aircraft and the vehicles & equipment related to the activities of aircraft.
National Civil Aviation Security Program	The documented program of a State for safeguarding civil aviation operations against acts of unlawful interference through regulations practices and procedures that takes into account the safety, regularity and efficiency of flights.
Nets	A network of webbing affixed to an aircraft within its holds or to an aircraft ULD for the purpose of restraining a load within the hold or in the ULD.
Night	The period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise as may be prescribed by the appropriate authority, as defined by the State.
No Show	Passengers that doesn't present themselves for travel.
Nominated Person (EASA)	An individual, acceptable to the Authority, who is responsible for the management and supervision of a specified area of operations, which include: • Flight Operations; • Maintenance; • Crew Training; • Ground Operations. They have particular responsibilities in safety management and safety promotion. *Note: formerly called "Nominated Postholder".*
Nose-In	The way an aircraft is parked at a parking spot, unable to leave under own power and hence requiring pushback.
NOTAM	An official notice or communication issued by an NAA to inform pilots of hazardous conditions that could affect flight operations, or temporary or permanent changes associated with aeronautical facilities, services, or procedures.
Occupational Health and Safety	The promotion and maintenance of safety and health in the workplace, which includes, inter alia, controlling workplace risk, setting occupational health and safety regulations, providing medical and health services, and generally ensuring the well-being of workers.
Off Chocks / Blocks	Actual time that aircraft moves from the parking stand for departure (as in the time that pushback commences or if taxiing out under own power from "power-in" – "power-out" stand).
Off Load	Reference to anything being sent off the aircraft.
On Chocks / Blocks	Actual time that aircraft comes to a standstill at the parking stand.
Operational Control	The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety and security of the aircraft and its occupants. There are two predominant systems of operational control: • Non-shared – operational control authority over a flight is delegated only to the pilot-in- command (PIC); • Shared – operational control authority over a flight is delegated to both the PIC and a flight operations officer/flight dispatcher (FOO). Within the context of operational control, authority is defined as the power or right to give orders, make decisions, grant permission and/or provide approval. The term "operational control" is interchangeable with "control and supervision of flight operations." (Equivalent Term: Flight Dispatch)

Operational Flight Plan	The operator's plan for the safe conduct of the flight based on considerations of aircraft performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned. An OFP is completed for every intended flight, approved and signed by the pilot-in-command and, where applicable, signed by the flight operations officer/flight dispatcher. A copy of the OFP is typically filed with the operator or a designated agent, left with the aerodrome authority or left on record in a suitable place at the point of departure.
Operations	The recurring activities of an organization directed toward delivering a product or rendering a service. In this manual, the term "operations" refers to activities that affect safety and security conducted under the disciplines of flight operations, operational control, engineering and maintenance, cabin operations, ground handling, cargo operations and operational security.
Operations Control Centre	An office or department within the organizational structure of an operator that is assigned responsibility for operational control of on-going operations with authority to originate, delay, divert and cancel flights. Functions located within an OCC typically include management representatives, flight dispatch, flight planning, crew scheduling, maintenance experts, meteorology personnel, ATS specialists, and customer service specialists. An OCC is equipped with communications equipment, technology tools and support materials necessary to accomplish required functions; serves as a "nerve centre" for an operator, with multiple communications links (e.g. to en-route flights, system stations, government agencies, as well as load control, security, technical and medical functions). The size and location of an OCC is commensurate with the type and magnitude of operations; may consist of few or many personnel and may have one or more locations.
Operations Manual	A collection of manuals, containing procedures, instructions and guidance for use by operational personnel in the execution of their duties. The operations manual, which may be issued in separate parts, is typically organized with the following structure: General - section of the Operations Manual (OM) that contains flight crew policies and procedures, not related to a specific type of aircraft, relevant to the following operations personnel as applicable: Flight crew/Cabin crew/Flight operations officer/Flight dispatcher/other operational personnel as determined by the operator or required by the State. • Aircraft Operating Information • Areas, routes and aerodrome; • Training.
Operations Performance	Actual operational outcomes of operations, typically in terms of safety and security, as measured against pre- defined or expected outcomes (e.g. operational performance objectives).
Operator	An organization that holds an Air Operator Certificate (AOC) and engages in commercial passenger and/or cargo air transport operations.
Origin Airport	The place from where the flight commences.
Passenger	Persons that are transported on board an aircraft by an operator, mostly for commercial purposes, who are not: • Operating crew members; • Supernumeraries.
Passenger Manifest	A traffic document listing the names of passengers to be carried on a flight.
Passenger with Reduced Mobility	A passenger whose mobility is reduced due to physical incapacity, an intellectual deficiency, age, illness or any other disability when using transport and whose situation needs special attention and the adaptation to the person's needs of the services made available to all passengers.
Payload	The weight of passengers, baggage, cargo and mail and includes both revenue and non- revenue items.
Personal Protective Equipment	Equipment or clothing worn by personnel to protect against operational injury and health hazards.
Pilot-In-Command	The pilot designated by the Operator as being in command of the aircraft and charged with responsibility for the operational control and safe conduct of a flight. (Equivalent Terms: Captain, Aircraft Commander)
Policy	The stated intentions and direction of an organisation.
Port Side	To be understood as Left hand side in the direction of flight.

Positioning	• A flight (aircraft) with no passengers to a specific location to pick up passengers and/or an aircraft. • Moving crew from one airport to another for operational purposes.
Prevention Barrier	Risk control aimed at preventing “Undesirable Events” and “Undesirable Operational Status”.
Preventive Action	Action to eliminate the cause(s) and prevent occurrence of a potential non-conformance or potential undesirable condition or situation.
Procedure	An organised series of actions accomplished in a prescribed or step-by-step manner to achieve a defined result.
Process	One or more actions or procedures implemented in a coordinated manner to achieve a goal, a defined result or to satisfy a requirement.
Provider	An organization that delivers services (e.g. maintenance, ground handling, training) to an airline or air operator on a contractual basis. (Equivalent Terms: Service Provider, Service Vendor)
Pushback	Where an aircraft is pushed by a tug from a nose-in parking stand onto a taxiway or other part of the surface movement area where the aircraft may move under its own power.
Quality	The degree to which a system consistently meets specified requirements, satisfies stated needs, or produces desired outcomes.
Quality Assurance	The formal and systematic process of auditing and evaluation of management system and operational functions of an operator to ensure: • Compliance with regulatory and internal requirements; • Satisfaction of stated operational needs; • Identification of hazards, undesirable conditions and areas requiring improvement. (Equivalent Terms: Internal Evaluation, Safety Assurance)
Quality Control	The audit, inspection or testing of the output of a process, which may be a product, service or function, to determine an operator’s compliance with technical, performance and/or quality standards. Quality control activities are typically sponsored by operations, maintenance or security managers, who have the direct responsibility for the safety and security of operations. (Equivalent Terms: Product Inspection, Product Audit)
Quality Manager	See: Compliance Monitoring Manager.
Quality Policy	Means the overall intentions and direction of an organisation (operator, AMO, service provider) related to Quality, as approved by those managers that direct and control the organisation (e.g. Accountable Manager).
Quality Systems	The total network of administrative and detailed procedures, which is implemented to ensure all operations and maintenance activities satisfy the customer’s requirement and the documentation accurately reflects the criteria used to perform the maintenance.
Ramp/Stand	Aircraft parking area, technically the “apron” is where the aircraft park but it is generally referred to as “the ramp”, and specific aircraft parking locations (usually defined by painted borders and nose-in guidelines/equipment limit lines) are referred to as a “stand” and in some other locations as “bay” or “gate”.
Ramp Agent	A person who supervises and co-ordinates on the ramp the tasks of ground handling for an aircraft departure or arrival.
Ramp Inspection	The inspection of aircraft, of flight and cabin crew qualifications and of flight documentation in order to verify the compliance with the applicable requirements.
Ramp Operations	All aircraft activities that occur on an airport ramp area.
Recovery Barrier	Risk control aimed at impeding that “Undesirable Operational Status” result in an accident or, in other words, that incident scenarios escalate into an accident.
Registration (Aircraft)	A unique alpha/numeric designation for an aircraft - given by the country where the aircraft is registered.
Regulated Garbage	USA legal requirement: In order to protect against the introduction of exotic animal and plant pests, the importation of garbage from all foreign countries except Canada is prohibited. Refuse; often contaminated with perishable/infectious materials must be discarded according to specified regulations and guidelines. (Equivalent Term: Regulated Waste)
Reliability	The probability that an item will perform a required function, under specified conditions, without failure, for a specified period of time.
Resource Management	The effective use of all the resources available to personnel, including each other, to achieve a safe and efficient outcome.

Responsibility	A duty or obligation to execute or perform an assigned function, duty, task or action; typically includes delegation of an appropriate level of authority; implies holding a specific office, title, or position of trust.
Right	To be understood as Right hand side in the direction of flight. (Equivalent Term: Starboard)
Risk	The possibility of danger, loss, injury, or other adverse outcome(s) associated with a hazard, typically expressed in terms of the severity of such outcome, and the likelihood it could occur. Alternate Definition: “The combination of occurrence likelihood and severity”.
Risk Analysis, Assessment and Mitigation	A risk management process ensures analysis (in terms of likelihood and severity of occurrence), assessment (in terms of tolerability) and control (in terms of barriers and mitigation) of risks to an acceptable level.
Risk Tolerability Matrix	A matrix (or table) combining Risk Likelihood and Risk Severity.
Root Cause	The initiating cause in a causal chain that leads to an undesirable situation or condition; the point in the causal chain where corrective action could reasonably be implemented and expected to correct and prevent recurrence of the undesirable situation or condition.
Roster	Program of duties over a defined period of time, usually in months, sometimes in week(s).
Rudder	A moveable vertical surface attached to the rear of the horizontal stabilizer and used to provide yaw control by changing the angle of attack of the rudder when controls are manipulated. The rudder, horizontal stabilizer and the rearmost portion of the fuselage to which they are attached is referred to as the empennage, quite often the APU and the flight recorder(s) are located in this region as well.
Runway	Strip of pavement or other surface appropriate to the aircraft type in use that is used by aircraft to take-off and land, sometimes also called the landing strip.
Safety	Safety is the state in which the possibility of harm to persons or property damage is reduced to and maintained at or below an acceptable level through a continuing process of hazard identification and risk management.
Safety Assurance	The component of a safety management system that comprises processes for: • Safety performance monitoring and measurement; • The management of change; • Continual improvement of the SMS.
Safety Culture	The shared values, beliefs, assumptions and norms that govern decision-making, and that may affect individual and group attitudes about danger, safety and the proper conduct of operations.
Safety Issue	A manifestation of a hazard or combination of several hazards in a specific context. The Safety Issue has been identified through the systematic Hazard Identification process of the organization. A Safety Issue could be a local implication of one hazard (e.g. de-icing problems in one particular aircraft type) or a combination of hazards in one part of the operation (e.g. operation to a demanding airport).
Safety Management System	A systematic approach to managing safety within an organization, including the necessary organizational structures, accountabilities, policies and procedures. As a minimum, an SMS: • Identifies safety hazards; • Ensures that remedial action necessary to maintain an acceptable level of safety is implemented; • Provides for continuous monitoring and regular assessment of the safety level achieved; and, • Aims to make continuous improvement to the overall level of safety.
Safety Manager	The Safety Manager promotes and supervises operational safety as a representative of the Accountable Manager for all safety related matters. The Safety Manager is responsible for managing the flight safety, FDM and an accident prevention program.
Safety Performance	Safety achievement as defined by the safety performance targets and measured by safety performance indicators.
Safety Performance Indicator	A data-based safety parameter used for monitoring and assessing performance.

Safety Policy and Objectives	The component of a safety management system that provides the frame of reference for the processes associated with safety risk management and safety assurance, and defines: • Management commitment and responsibility; • Safety accountabilities of managers; • Appointment of key safety personnel; • SMS implementation plan; • Coordination of emergency response planning; • Documentation.
Safety Promotion	The component of a safety management system that provides support for the processes associated with safety risk management and safety assurance, and defines: • Training and education; • Safety communication.
Safety Risk Management	The component of a safety management system that comprises: • Hazard identification processes; • Risk assessment and mitigation processes.
Safety Risk Value or Risk Index Value	Values in the cells of a Risk Matrix allowing differentiation of risk level for the purpose of risk analysis, assessment and mitigation.
Sampling	Assessment of characteristics of parts of a whole quantity, usually selected at random, to assess the state of the whole quantity.
Screening	The application of technical or other means intended and designed to identify and/or detect weapons, explosives or other dangerous devices, articles or substances, which may be used to commit an act of unlawful interference.
Sector	The flight between two consecutive scheduled stops on any given flight. (Equivalent term: stretch, leg)
Security	The safeguarding of civil aviation against acts of unlawful interference, achieved by a combination of measures and human and material resources.
Security Audit	An in-depth compliance examination of all aspects of the implementation of the national civil aviation security program.
Security Control	A means by which the introduction of weapons, explosives or other dangerous devices, articles or substances which may be utilised to commit an act of unlawful interference can be prevented.
Security Equipment	Devices of a specialised nature for use, individually or as part of a system, in the prevention or detection of acts of unlawful interference with civil aviation and its facilities.
Security Inspection	An examination of the implementation of relevant national civil aviation security programme requirements by an Operator, airport, or other provider entity involved in security.
Security Management System	The documented system of an Operator based on threat assessment to ensure security operations consistently fulfil all requirements mandated in the national civil aviation security programme of the State of the Operator in the most efficient and cost-effective manner considering the operational environment of the airline.
Security Manual	A manual or series of separate manuals containing policies, procedures, instructions and other guidance relevant to the implementation of the Security Programme, which is intended for use by operational personnel in the execution of their duties.
Security Program	A programme consisting of requirements and/or standards adopted for the purpose of safeguarding international civil aviation against acts of unlawful interference. The Security Programme of an operator is compliant with the requirements of applicable civil aviation security authorities in the State of the Operator and states where operations are conducted.
Security Restricted Area	Those airside areas of an airport that are identified as priority risk areas where, in addition to access control, other security controls are applied. Such areas will normally include, inter alia, all commercial aviation passenger departure areas between the screening checkpoint and the aircraft, the ramp, baggage make-up areas, including those where aircraft are being brought into service and screened baggage and cargo are present, cargo sheds, mail centres, airside catering and aircraft cleaning premises.
Security Survey	An evaluation of security needs including the identification of vulnerabilities that could be exploited to carry out an act of unlawful interference, and the recommendation of corrective actions.
Security Test	A covert or overt trial of an aviation security measure that simulates an attempt to commit an unlawful act.

Security Threat	A measure of the probability of an act of unlawful interference being committed against civil aviation. • Base Threat Level – low security threat condition where verifiable intelligence information does not indicate any probability that an operator or airport has been targeted for attack; the possibility exists for unlawful interference by individuals or groups due to civil unrest, labour disputes and/or local anti-government activities. • Intermediate Threat Level – security threat condition where verifiable intelligence information indicates a probability that one or more operators and/or airports have been targeted for attack. • High Threat Level – security threat condition where verifiable intelligence information indicates one or more operators and/or airports have specifically been targeted for attack.
Serious Incident	An incident involving circumstances indicating that an accident nearly occurred.
Service Agreement	Standard agreement which arranges the relations between ground handling companies that perform handling services at airports and the customer airline. Provisions include normally rules & regulations, obligations and sanctions.
Servicing	Maintenance carried out on an aircraft, aircraft engine, aircraft component, or GSE equipment.
Slats	Situated on the leading edge of the wing, slats work in conjunction with the flaps to improve lift at slower speeds by smoothing the airflow over the leading edge to augment the amount of lift.
Special Load	A load which, owing to its nature or value, requires special attention and treatment during the process of acceptance, storage, transportation, loading and unloading.
Stand	Parking area for aircraft.
State	ICAO recognised country.
State Acceptance	The method whereby a state addresses a matter submitted for its review with a response that is not formal or necessarily active. A state may accept a matter submitted to it for review as being in compliance with the applicable standards if the state does not specifically reject all or a portion of the matter under review, usually after some defined period of time after submission. Where there is no method for acceptance, or where acceptance is not required by the State for a specific matter, then State acceptance of the matter is considered implicit.
State Approval	The method whereby a state addresses a matter submitted for its review with an active and formal response, which constitutes a finding or determination of compliance with the applicable standards. An approval will be evidenced by the signature of the approving official, the issuance of a document or certificate, or some other formal action taken by the State.
State of Flight Arrival	The territory of a state in which a commercial flight arrives.
State of Flight Departure	The territory of a state from which a commercial flight departs.
State of The Operator	The country in which the operator has his principle place of business.
State of Origin	The territory of a state in which the flight or load originated.
State of Registry	The country on whose register the aircraft is entered.
Station	The equivalent to term “Airport”.
Station Management	Management of Carriers administrative and/or operational representative’s functions. (FBO/GSP Station Management)
Sterile Area	That area between any passenger inspection or screening station and the aircraft, into which access is strictly controlled. In some states, sterile areas and security restricted areas are the same; in others states different levels of security exist.
Stopover	Any day or night stop(s).
Stores	• Stores for Consumption – Goods, whether or not sold, intended for consumption by the passengers and/or crew on board an aircraft, or goods necessary for the operation and maintenance of aircraft. Stores for consumption include COMAT, which are goods necessary for the operation and Maintenance of aircraft. • Stores to be Taken Away – Goods for sale to the passengers and/or crew of the aircraft with a view to being landed. The word “landed” in this context generally means duty free or tax-free goods that will be declared to Customs by passengers and/or crew, and which may be subject to excise duty. IOSA specifications address stores the same as cargo for the purposes of handling, loading, securing and transporting.
Substantial Damage	Damage or structural failure that negatively affects the structural strength, performance, or flying characteristics of an aircraft, and which would require significant repair or replacement of the affected component or system. Damage to landing gear, wheels, tires, and flaps is excluded, as well as bent aerodynamic fairings, dents in the aircraft skin, small punctures in the aircraft skin, ground damage to propeller blades, or damage to only a single engine.

Supervision	To oversee and direct the performance of the Services contracted by the Carrier with third parties. The term Supervision shall not apply to the Handling Company self-management of its own services or overseeing of the Handling Companies subcontractors.
Supplier	An organisation that sells products or services for use by the air transport industry. The products may include maintenance, spare parts and information.
Surveillance	A continuing, but intermittent, inspection or audit of a system or combination of systems and procedures.
System	An automated method, including equipment and programmes for performing functions like reservations, weight and balance, etc.
Tail-tipping	The rising of the nose gear off the ground during an aircraft offload process, and subsequent contact of the aircraft tail with the platform.
Take-Off	The act of leaving a supporting surface, including the take-off run and the acts immediately preceding and following the leaving of the surface.
Taxiway	Part of the surface movement area that provides various links and methods for an aircraft to taxi from the ramp/apron to the appropriate point on the departure airway.
Taxiing	Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.
Taxiway	A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including: • aircraft stand taxi lane • apron taxiway • rapid exit taxiway
Technical Landing (Tech Stop)	A landing for other than commercial reasons where no physical change of loads, passenger and/or crew occurs. Most often a stop in order to refuel.
Technical Log (Tech Log)	The record of reported or observed malfunctions, failures, or defects in the airframe, power plant, or appliances on an aircraft, including information concerning repairs, replacements, adjustments, or deferrals. The log normally resides in the aircraft. (Equivalent Terms: Aircraft Technical Log, Aircraft Log Book)
Terminal	Airport Building
Tie Down	Equivalent to "Restrain/Secure/Lash", means the term used to describe the securing of the bulk-load or part thereof to fixed restraint points within an aircraft or in a ULD, to conform to restraint and safety requirements.
Tie-Down Points	Attachment points for the tie-down equipment to secure load on aircraft and/or ULDs.
Top Up	Additional load or fuel that may be added because capacity is still available.
Touch Down	The point where the nominal glide path intercepts the runway.
Towing	Where an aircraft is towed by a tug from a parking stand onto a taxiway or other part of the surface movement area where the aircraft may be parked or move away under its own power.
Traffic	The activity of the transportation of passengers, baggage, cargo and mail.
Training	Formal instruction given to operational personnel to ensure each person has the requisite awareness, knowledge and competence to meet job responsibilities and perform assigned duties or functions. • Training may also include testing, checking, assessment, or evaluation activities as a means for demonstrating proficiency or competency. • Initial Training – formal training provided to operational and maintenance personnel prior to being assigned to new duties, functions, positions and/or aircraft. • Recurrent Training – on-going training provided to operational and maintenance personnel on a frequency in accordance with requirements of the State and/or the Operator.
Training Course	A series of classes, lessons or meetings for the purpose of achieving specific training objectives.
Training Curriculum	An organised programme of study or courses offered by an organisation that conducts training.
Training Manual	A separate manual or part of the operations manual, acceptable to the State of the Operator, containing the relevant details of operational personnel training programmes to address as applicable: • Flight crew; • Cabin crew; • Flight operations officers/flight dispatchers; • Other operational personnel as determined by the operator or required by the state.

Training Syllabus	A summary outline of a course curriculum that delineates course requirements, grading criteria, course content, trainer expectations, deadlines, examination requirements, grading policies, and another relevant course information.
Transfer	Traffic which arrives on a flight and continues on another flight of the same airline or other airline within a defined time limit.
Transit	Traffic which arrives on a flight and continues on the same flight.
Transit Flight	An aircraft making an intermediate landing for commercial reasons where a change of loads, passengers and/or crew occurs.
Transit Station	A scheduled en-route stopping place on a flight.
Transit Time	The time an aircraft remains in transit.
Unlawful Interference	Any act or attempted act that may jeopardise the safety and security of international civil aviation, to include: • Unlawful seizure of an aircraft in flight or on the ground; • Hostage-taking on board an aircraft or at an airport; • Forcible intrusion on board an aircraft, at an airport or on the premises of a related civil aviation facility; • Introduction of a weapon, a hazardous device or material intended for criminal purposes on board an aircraft or at an airport; • Communication of false information that jeopardises the safety of an aircraft in flight or on the ground, or of passengers, crew, ground personnel or the general public at an airport or on the premises of a related civil aviation facility.
Unloading	Removing load from an aircraft.
Unserviceable	The state of an aircraft, engine, component, or any piece of equipment as being in a condition that does not permit usage in operations.
Uplift	To load passengers, fuel, (cargo & mail), catering or company stores, is to “uplift” such items.
Upwind	Direction from which the wind is blowing.
Version	The designator used to indicate the aircraft configuration together with the details of the equipment carried.
Visual Inspection	A visual inspection either directly or by the assistance of a suitable apparatus to determine the state of an area or part.
Weapon	An instrument of attack or defence in combat that is normally prohibited from being carried on board an aircraft by a passenger.
Weight	The term “weight" is used herein in lieu of the correct technical term "mass", in order to conform to standard industry terminology.
Wet Runway	A runway of which the surface is covered with water, or equivalent, less than specified by the ‘contaminated runway’ definition or when there is sufficient moisture on the runway surface to cause it to appear reflective, but without significant areas of standing water.
Wing Walker	A member of the ground crew whose primary job function is to walk alongside an aircraft's wing tip (and tail) during aircraft ground movement (e.g. pushback, towing) to ensure the aircraft does not collide with any objects.
Workplace Safety	Process and Procedures in place with an Operator that protect people and aircraft from inadvertent injury/damage i.e. safety of maintenance operations, environment, fire prevention or protection, identification of Safety-First Equipment, safety guarding of machinery, FOD protection, housekeeping and proper identification of “maintenance vital’ greases and fluids.
X-bag	Excess baggage.

0.15 GENERAL FBO/GSP TRAINING REQUIREMENTS

FBO/GSP management must ensure that all personnel involved in passenger and ramp/aircraft handling are appropriate trained and have succeeded individual training programs. Following training requirements are mandatory by Hyperion Aviation standards:

Course Contents	Mandatory	Optional
Dangerous Goods Course DGR (Approved by the relevant Authority)	X	
Ramp Safety (Approved by the relevant Authority)	X	

Security (Airport) (Approved by the relevant Authority)	X	
Ground Equipment (GSE) (Individual types or grouped by category)	X	
Ground Handling	X	
Human Factors	X	
First Aid		X*
Passenger Handling	X	

* Note: First Aid training is optional, but at least 2 persons per 10-person teams are recommended to have received First Aid training.

Note: FBO/GSP detailed training requirements are described in "GOM 4.3".

0.16 GROUND OPERATIONS MANAGEMENT

0.16.1 GROUND OPERATIONS MANAGER – DUTIES & RESPONSIBILITIES

Note: reference: EASA ARO-GEN.200 & EC 216/2008 & EASA ORO.GEN.110 & EASA ORO.GEN.200 & EASA ORO.GEN.205 & EASA ORO.GEN.210 & EASA ORO.AOC.135.

The respective Hyperion Aviation Ground Operations Manager (NP Ground Operations) report directly to the respective Accountable Manager. He is responsible for following:

- Refer to 1.2.4 OM.A

Furthermore, he will ensure

- Review of internal training and training materials related to ground, passenger, ramp, cargo and DGR handling.
- Review of handling agreements and contracts (SGHAs).
- Investigation of handling (passengers, ramp,cargo and DGR) incidents.
- Ensure availability of all necessary facilities, workspaces, equipment and supporting services.
- Ensures that staff levels are defined and maintained to ensure high levels of service and safety.

0.16.1.1 REGULATORY COMPLIANCE

The NP Ground Operations is responsible for maintaining compliance with the conditions and restrictions of the respective AOC, the applicable NAA regulatory requirements, original equipment manufacturers (OEM) or EASA Approved Design Organisations (DOA) requirements, other relevant entities and the standards established by the Accountable Manager.

0.16.1.2 REQUIREMENTS NP GROUND OPERATIONS

Note: reference: EASA ORO.AOC.135

Nominated Persons (NP) should normally be expected to possess the experience and meet the licensing provisions that are listed hereunder.

There may be exceptional cases where not all of the provisions can be met. In that circumstance, the nominee should have comparable experience and also the ability to perform effectively the functions associated with the post and with the scale of the specialised operation.

The Nominated Person, Ground Operations, should have:

1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
2. comprehensive knowledge of:
   a) the applicable EU and applicable NAA safety regulations and any associated requirements and procedures;

b) the operator's high-risk specialised operation authorisation, if applicable; and,
c) the need for, and content of, the relevant parts of the commercial specialised operator's operations manual;

3. familiarity with management systems preferably in the area of aviation;
4. appropriate management experience, preferably in a comparable organisation; and,
5. five (5) years of relevant work experience of which at least two (2) years should be from the aeronautical industry in an appropriate position.

Furthermore, the Nominated Person, Ground Operations, should have a thorough knowledge of the Hyperion Aviation Ground Operations Concept.

0.16.2 GROUND OPERATIONS - JOB DESCRIPTIONS

Ground Operations involves all aspects of aircraft handling at airports as well as aircraft movement around the aerodrome, except on active runways.

0.16.3 GROUND OPERATIONS - COMPLIANCE MONITORING

Note: reference: EASA ARO-GEN.205

Hyperion Aviation monitor compliance with the operational procedures they have designed for FBO/GSP to ensure safe operations and the serviceability of both operational and safety equipment. In doing so Hyperion Aviation additionally monitor the following:

- at high volume stations: that contracts with selected ground handling organisations are established, and valid, and are drawn up, preferably in the SGHA format, (see also "GOM 0.17.7")
- that instructions regarding fuelling and de-icing (AS6285 "Aircraft Ground De-Icing/Anti-Icing Processes" and AS6286 "Training & Qualification Program for De-Icing/Anti-Icing of Aircraft on the Ground") are issued,
- that instructions regarding dangerous goods are issued and known by all relevant personnel,
- that ground staff training records are updated and accurate, (see also "GOM 0.16")
- that all contracted activities are subject to FBO/GSP hazard identification and risk management, which will be produced and submitted to Hyperion Aviation upon simple request,
- that local procedures respect relevant IATA's AHM procedures as a minimum.

In order to evaluate the agreed standards of competence, Hyperion Aviation have the right to carry out station inspections and/or quality audits of the Handling Company/FBO at regular intervals.

These inspections and audits will focus on:

- Ground Handling,
- Security,
- De-/Anti-Icing, (see also "GOM 8.7")

0.16.4 GROUND HANDLING TRAINING STANDARDS

Note: reference: EASA ARO-GEN.220

Hyperion Aviation are responsible for the upkeep of the ground-handling standards. In order to ensure a safe and efficient handling, the following minimum training requirements shall apply for personnel performing services in the fields of activities as outlined below. This shall enable ground-handling personnel to perform their duties and remain in compliance with applicable regulations, laws, rules and airline standards. As a matter of principle, the physical condition of each staff shall be satisfactory to accomplish the required duties.

- Personnel shall be trained and qualified in the requirements according to their responsibilities. Knowledge verification is required by written, oral or practical means, (as applicable), such as testing or evaluation. Personnel have to demonstrate adequate knowledge, competency and proficiency to perform duties, execute procedures or operate equipment.

- Training programs have to be reviewed and updated to remain relevant, they shall distinguish between theoretical (off the job) and practical (on the job) training and shall include initial courses (prior personnel are being assigned to perform operational duties) as well as recurrent courses not less than once every 24-month period.
- Training shall include familiarization training on general provisions and regulations, in depth training on requirements, including policies, procedures and operating practices, training in Human Factors principles as well as safety training on associated operational hazards.
- Training and qualification records shall be kept on file in a chronological personal training file per staff member.
- Only personnel with a security background check will be operating. The requirements apply for full time, temporary and seasonal staff. These standards are in line with the provisions of the "EASA Ops ORO.GEN.110 (e) & (f)" which are the legal requirements for European operators with regards to the required standards of ground handling.
- The applied safety procedures of the handling agent shall comply with International standards, e.g. IS-BAH and/or IATA Safety Audit Ground Operations (ISAGO).
- Ground Support Equipment (GSE) used for handling of all flights must be serviceable and in good mechanical condition. A corresponding maintenance program shall be in place, including records of maintenance completed on GSE.

0.16.5 TRAINING & QUALIFICATIONS

All staff providing services for Hyperion Aviation aircraft must be familiar with the current edition of the Ground Operations Manual (GOM), as well as the current edition of the IATA Airport Handling Manual and IATA Dangerous Goods Regulations, and act accordingly. Each FBO/GSP shall have a copy at their station of:

- Hyperion Aviation Ground Operations Manual (GOM),
- Current IATA Airport Handling Manual,
- Current edition IATA Dangerous Goods Regulations.

This implies that the current edition of the GOM parts is available for all staff providing services for Hyperion Aviation aircraft. The FBO/GSP company is responsible to supply stations with the most recent IATA AHM edition.

In case relevant manuals are not accessible in the actual handling situation, e.g. at the FBO/GSP unit, arrange a communication process to ensure that staff can retrieve the necessary information in due time.

0.16.5.1 SECURITY TRAINING

Initial Training: All FBO/GSP company personnel will receive training at the earliest convenient time after being employed. Training can be performed either in a classroom environment, or individually on a CBT. Details of completed initial training shall be kept for a minimum of two years. All training records are integrated in the employees' folders by the training department, together with all other training. The FBO/GSP security awareness training should comprise following:

- All rules and regulations of the local National Security Program (need-to-know basis).
- All rules and regulations of the local Airport Security Program (need-to-know basis).
- All rules and regulations of the local Emergency Response Plan.

Recurrent Training: Recurrent training shall be available for all personnel on an annual basis. The recurrent training shall include:

- A summary of security-oriented events which have occurred (local, national and international) and the lessons learned.
- A summary of implemented changes which may have been made to the local National Security Program, local Airport Security Program and local ERP.

- All training records are integrated in the employees' folders by the training department, together with all other training.

0.16.5.2 AIRSIDE PERSONNEL

Note: reference: IATA AHM1110

All personnel whose duties require airside access must have received training and authorization as per "IATA AHM 1110". Personnel must have received training requirements laid down in the current edition of the "IATA Dangerous Goods Regulations".

0.16.5.3 PASSENGER HANDLING PERSONNEL

Note: reference: current editions of the IATA Airport Handling Manual, AHM1110 and IATA DGR Dangerous Goods Regulations.

FBO/GSP Handling Staff must have received general training in passenger handling, and when they perform duties airside on the ramp, they must have received appropriate training and authorization as laid down in "IATA AHM 1110".

FBO/GSP Handling Staff engaged in passenger handling must have received training according to the current edition of the "IATA Dangerous Goods Regulations" prior to operate in their respective area of operations.

0.16.5.4 AIRCRAFT HANDLING PERSONNEL

Note: reference: IATA Airport Handling Manual, AHM1110.

FBO/GSP Handling Staff must have received training and authorization according to "IATA AHM 1110" and in accordance with the current edition of the "IATA Dangerous Goods Regulations" prior to operate in their respective area of operations. Personnel engaged in the field of pushback, walk out assistance or releasing of aircraft must have received basic training as per "IATA AHM 631" and local working procedures prior to operate in their respective area of operations. Personnel operating Ground Support Equipment (GSE) must have received appropriate training and authorization as laid down in "IATA AHM 1110" and other appropriate AHM's prior to operate in their respective area of operations.

Where required, FBO/GSP Handling Staff, required to drive on the ramp, shall have a valid ramp/airside driving permit (ADP), issued by the relevant authority.

0.16.5.5 DGR TRAINING

All FBO/GSP Handling Staff, working in an operational role (land-side and air-side), must have received training in accordance with the current edition of the "IATA Dangerous Goods Regulations" prior to operate in their respective area of operations.

0.16.5.6 TRAINER - QUALIFICATION(S)

The person/organization delivering training to FBO/GSP Handling Staff must be a qualified trainer. The training material may be audited at the discretion of Hyperion Aviation management and must be available on request.

0.16.5.7 GENERAL QUALIFICATIONS & PREREQUISITES

FBO/GSP companies will ensure that all positions within the FBO/GSP organisation and which affect operational safety and security are filled by qualified personnel that possess the knowledge, skills, training and experience appropriate for the position and that those critical functions also maintain competence and currency in their respective fields through recurrent training and/or continuing education.

Furthermore, Management and staff positions within the Operations, Safety and Security department(s) will be subjected to a comprehensive background and criminal records check, dating back 5 years and which should include no-gaps.

0.16.6 DELEGATION OF DUTIES

All Ground Operations Management personnel shall, in addition to the specified duties:

- Nominate, and delegate authority to a deputy in their absence, and brief as appropriate.
- Deputise for their respective senior manager as required.
- Be responsible for the preparation of their section budget (NP Ground Operations only).
- Ensure that best industry practices are implemented in their section.
- Be responsible for the documentation and upkeep of the procedures under their control.
- Carry out any other duties, as required by their senior manager.
- Manage and ensure effective use of all resources under their control.
- Manage and ensure efficient use of all team members.
- Maintain close working relationships with other departments and sections internally and externally.
- Ensure the career development and progression of their staff.
- Ensure that the major processes carried out in their area of responsibility are documented
- The station reporting official / operational manager will send out an email notification of absence and specify those dates of absence.

Note: The delegation of duties shall apply as appropriate, and is applicable across all grades. Where necessary senior staff may delegate certain tasks or duties to suitably qualified lower graded staff members to cover for leave, absence or unexpected eventualities.

0.16.6.1 MANAGERIAL CONTINUITY

To ensure the communication and coordination with external entities is consistent and appropriate, liaison with operationally relevant external entities is normally controlled through the delegation of authority and assignment of responsibility to specifically named management personnel. Such authorities and responsibilities must be included in the job descriptions of the applicable FBO/GSP staff members.

Ground Operations Manager	Deputy Ground Operations Manager	FBO & Handling Supervisor

0.16.7 STANDARD GROUND HANDLING AGREEMENTS (SGHA)

Note: reference: IATA Airport Handling Manual, AHM800, AHM810.

Hyperion Aviation operate to many destinations world-wide, and entering into a legally binding contract with FBO/GSP's at every single airport we operate to is just not possible. There are stations however where our flight volume warrants to select a designated FBO/GSP and where we will explore and execute the provision of a contract for services requested and rendered.

Note: see also "GOM 0.18".

The contract form preferred by Hyperion Aviation is the standard ground handling agreement (SGHA), designed and provided by IATA and which is the general accepted (airline) industry standard.

The contract definition is updated quite often and the latest version is always published in IATA's yearly edition of the Airport Handling Manual. The SGHA, as the standard ground handling agreement is commonly known, is described in "ATA AHM 810" and its relevant subsections.

Each request from an FBO/GSP to enter into a binding agreement, by means of an agreed upon SGHA, will be evaluated by the respective Hyperion Aviation NP Ground Operations, on a case-by-case basis.

0.16.7.1 DEFINITION OF GROUND HANDLING

In aviation a definition of ground handling is useful, as many times there are some ambiguities on what constitutes ground handling exactly. For Hyperion Aviation the following definition will apply and should be adopted.

It is submitted that ground handling may be defined as the services that are absolutely essential for the take-off and landing of an aircraft, departure and arrival of passengers, baggage, freight and mail. Without them the take-off and landing of the aircraft, departure and arrival of passengers, baggage, freight and mail will simply not occur. Ground handling will start when the aircraft lands. Similarly, it will end with the marshalling of the aircraft off stand.

If a list of services supports a definition of ground handling, this should be closed and precise in order to guarantee that ground handling is confined to the services listed and that it should be aligned with the practice of the sector.

Hence, the nub of this definition will be: can the aircraft fly without this or that service? Can passengers, freight and mail be carried without this or that service? If the answer is no, then it will be ground handling. If yes, then the service will not be a ground handling activity.

0.16.7.2 INSURANCE

Hyperion Aviation are adequately insured through its insurance company(ies) to cover any eventual mishap while performing its handling activities. The current insurance certificate can be obtained upon simple written request.

Note: for FBO/GSP insurance requirements: see "GOM A4.1.3".

0.16.8 GROUND OPERATIONS - ORGANISATION CHARTS

0.17 SELECTION OF OUTSOURCED SERVICE PROVIDERS

Where Hyperion Aviation cannot ensure self-handling for its own flights, agreements with external handling service suppliers are concluded, either on an ad-hoc basis or by means of an SGHA (IATA format). The agreements with the third-party service suppliers includes constant monitoring of performance and quality assurance either by audits performed at regular intervals or inspections, questionnaires or other forms of monitoring, that will help completing the process of safety evaluation and risk assessment process.

Hyperion Aviation will check the conformity of the potential service providers with the requirements of the regulatory organizations and standards, as well as compliance with company procedures.

Evaluating the implementation of corrective actions will be checked through unscheduled and scheduled audits, and inspections.

Note: the auditing system for service providers is detailed in "GOM 13".

0.17.1 INTRODUCTION

In order to cover all aspects of operation and maintenance on all stations and any location where operational activities are performed, or to supplement some activities for which Hyperion Aviation does not have the capabilities to perform them or enough properly trained staff or facilities, or to supply the activity with documents, spare parts, consumables and so on, it is imposed to outsource (by contracting or subcontracting) some services. Sometimes it is likely that running the activity in-house may not be feasible and consequently using outsourced services is the better option.

In the aforementioned cases, the ultimate responsibility for the product or service provided by the FBO/GSP (the term "FBO/GSP" will be further used for: contractor, subcontractor, spare parts supplier, etc.) always remains with

Hyperion Aviation. A written agreement will be signed, where required, between Hyperion Aviation or/and the sub-contractor clearly defining the safety related services and quality to be provided. A contract shall be closed, where required, to ensure all legal requirements and Hyperion Aviation standards are adhered to. The "IATA Standard Ground Handling Agreement" (SGHA) for passenger and aircraft handling closed between Hyperion Aviation handling stations lays down the duties and responsibilities of contracted personnel.

The simplified procedure according to "IATA Annex B" is acceptable. Ground Handling Agreements (SGHA) may be concluded for an indefinite or definite time period. Additional services may be contracted by means of a Side Letter(s).

The appointed FBO/GSP shall have an organization and management system, including definition of responsibilities and authority, for the management of all ground handling functions associated with ramp operations, passenger services, baggage services, cabin services, load-control data gathering, ground support equipment and fuel services.

The FBO/GSP shall have a safety management system that includes: policy, purpose, applicability, responsibilities, training, operating procedures, risk management, audits, inspections, performance monitoring, emergency response, non- punitive system for reporting of incidents and occurrences, risk assessment and hazard/mishap evaluation.

The FBO/GSP shall have a system for the management of personnel assigned to its ground handling operations, to include assurance of competence, training, education, skills and experience.

This procedure describes the method in which a supplier of the outsourced service or product, which could affect the quality, safety, and security of operation and/or maintenance and the airworthiness of Hyperion Aviation aircraft is selected, evaluated, approved and monitored.

0.17.2 **WORK METHOD**

0.17.2.1 SELECTION & ASSESSMENT OF GROUND HANDLING SERVICES

For long term planned services Ground Handling suppliers (FBO/GSP) are selected by the respective NP Ground Operations or his delegate. The selection is done based on the technical requirements for the service established taking into account the purpose of the service, its functionality and regulation requirements, further called service characteristics. The respective NP Ground Operations will assess the suitability of the offered service against these established service characteristics.

More than one offer of service from more than one supplier will be assessed, where available. All suppliers whose services are in compliance with the established service characteristics become potential suppliers and they will be chosen for the next step: quality management system assessment.

For short ad-hoc requirements the selection can be made by a third party approved provider.

0.17.2.2 ASSESSMENT OF THE SUPPLIER'S QUALITY MANAGEMENT SYSTEM

The FBO/GSP Quality Management assessment is done by the respective Hyperion Aviation quality department (following the advice and request issued by the line managers) over the potential supplier's capabilities to supply timely and continuously a service/product of a certain quality and safety standard accepted by Hyperion Aviation.

This is done by establishing the existence and effectiveness of the supplier's Quality Management Systems /Quality Assurance Program ability to comply with a certain accepted standard that would guarantee a constant supply of products/services of a pre-established safety and quality standard.

The assessment is accomplished through the following methods:

- by auditing the supplier;
- remote evaluation based on the assessment of the certifications of the supplier's quality management system or NAA authorisations (which usually cover a minimum of QA processes).

Hyperion Aviation define a yearly audit plan which sees planned audits at the 5 highest traffic volume stations world-wide. FBO/GSP companies are informed approximately one-month prior the audit about the audit event, it's planning and structure.

Hyperion Aviation currently audits FBO/GSP stations on Ground Operations, Security and De-/Anti- Icing (where available & needed) matters. The audit system is in continuous development and evolves every year.

0.17.3 OPERATOR STAFF INTERACTION WITH FBO/GSP EMPLOYEES

Hyperion Aviation promote a professional work environment. Should an FBO/GSP employee not be treated with the utmost professional respect by Hyperion Aviation staff, crews, passengers, the FBO/GSP should report the incident to Hyperion Aviation OCC immediately.

Should any FBO/GSP employee be subject to behaviour from Hyperion Aviation staff, crew(s) or passenger(s) that causes the FBO/GSP employee to feel threatened, harassed, or discriminated against, the FBO/GSP shall immediately report the incident to the respective Hyperion Aviation OCC who will liaise internally with the relevant department head.

0.18 FBO/GSP COMMUNICATIONS

0.18.1 OPERATOR OPERATIONS CONTROL CENTRE

Hyperion Aviation aims to deliver the highest standards of safety and customer service, and be amongst the best in its class. Management of the entire operation is the responsibility of the respective Hyperion Aviation Operations Control Centre (OCC) based at Malta International Airport, Malta.

Hyperion Aviation appointed FBO/GSP companies are of key importance to our objectives in ensuring the communication of vital information to the respective OCC in order that the correct decisions can be made for optimisation of our resources.

0.18.2 REPORTING TO HYPERION AVIATION OCC

When a handling request has been received and acknowledged by the FBO/GSP supplier, Hyperion Aviation expects clear, complete & concise and timely information about anything that may affect the planned or operating flight, or any aspect thereof.

It is essential that the respective Hyperion Aviation OCC is notified immediately and that this information is passed on in order that issue handling can start without unnecessary delay.

0.18.2.1 MOVEMENT MESSAGES (MVT)

Note: reference: IATA AHM710

In order to control a punctual and regular aircraft rotation, it is vital to send and receive flight movement messages.

Movement messages between departure or destination airports and OCC (the respective Hyperion Aviation Operations Control Centres) must be sent no later than 10 minutes after on-blocks or 5 minutes after airborne. The actual flight time should be used when determining the estimated time of arrival; this should be obtained from the Commander. Messages must be sent using email and addressed to the respective OCC email address.

occ@hyperion.aero

Following items must be observed:

- The movement messages have to be sent to all parties according to the distribution chart for messages.
- The sequence of lines and space in the aircraft movement form must strictly be followed.
- All times must be given in UTC.

- The number of bags must be shown.
- Any passenger service information, e.g.: wheelchair types must be included.

Corrected versions always have to be sent as complete messages; in this case the remark >Corr. version< has to be stated under SI (Supplementary Information).

0.18.2.2 MVT TERMS AND DEFINITIONS

The times in the Aircraft movement messages form shall be defined as follows:

AA Actual time of Arrival, consisting of:

- touchdown time,
- actual arrival time, when the aircraft comes to a full stop (chocks on block).

AD Actual time of Departure, consisting of:

- actual time, when the aircraft starts taxiing, either by its own power or pushback (off-block)
- time of take-off (15 meters above ground)

EA Estimated time of Arrival.
ED Estimated time of Departure.
NI Time, when Next Information will be given in case of indefinite delays

Note: All times shall be given in UTC!

0.18.2.3 MVT COMPOSITION - DEPARTURE

The departure message must contain the following details:

- Message identifier,
- Flight number and date of scheduled departure,
- From station of origin,
- Aircraft registration,
- Airport of movement,
- Actual time of departure,
- Estimated time of arrival (using actual flying time),
- Destination aerodrome,
- Number of passengers (PX) followed by actual number of passengers on board (excluding infants),
- Number of bags and number of infants,
- Any PSM information e.g.: Number of wheelchairs, PRMs, firearms, deportees etc.

Examples:
MVT
MLT123/02.9HPGS.MLA AD0530/0534 EA0700 SXF PX242
SI B/21 INF/0 PSM 1WCHR

0.18.2.4 MVT COMPOSITION - ARRIVAL

An arrival message shall be sent immediately after arrival of the aircraft and must contain the following details:

- Message identifier,
- Flight number and date of scheduled departure from station of origin,
- Aircraft registration,
- Airport of arrival,
- Actual time of arrival.

0.18.2.5 MVT COMPOSITION – DELAY MESSAGE

A delay message shall be sent whenever the scheduled time of departure is exceeded or is likely to be exceeded by 15 minutes or more.

The delay message must state the following:

- The estimated time of departure (ED) or next info (NI),
- The reason for the delay in plain language under SI.

If the estimated time of departure advised in the delay message is likely to be exceeded again, an additional delay message must be sent stating a revised estimated time of departure.

If email is unavailable or inoperable, movement messages must be sent by an alternative method and FBO/GSP Handling Staff in operations are required to try alternative communications methods.

The alternatives in order of preference are:

- Telephone,
- Facsimile (FAX),
- Radio: when the aircraft is still within VHF range, alert crew to contact the respective Hyperion Aviation OCC with departure times once established in cruise.

0.18.3 REPORTING TO OPERATOR FLIGHT CREW

The prompt and concise reporting by FBO/GSP Handling Staff towards the Hyperion Aviation flight crew of special information is essential for the safety and security of flight operations and for the quality of services offered to Hyperion Aviation passengers. The operational and local reporting to the flight crew has as main purpose to inform the crewmembers about the local conditions/facilities or possible operational changes.

FBO/GSP Handling Staff must notify the Commander and contact him immediately when necessary. If the Commander is unreachable, or in legal rest-time, the respective Hyperion Aviation OCC will be contacted.

Local reporting

- The Commander must be notified about situations on the airport, which may cause irregularities in the ground handling of aircraft, as for example:
- Airport malfunctions (e.g. ATC, works, access, etc.);
- Strikes;
- Security Issues;
- VIP information & requirements;
- Demonstrations;
- Any unusual situation at the aircraft or appeared around the aircraft.

FBO/GSP Handling Staff will make suggestions and recommendations in order to minimize the negative effects of such unpredictable situations, upon the flight schedule and the passengers.

0.18.4 COMMUNICATIONS SYSTEMS

0.18.4.1 POLICY CONCERNING THE USE OF COMMUNICATIONS

Hyperion Aviation use the following facilities for urgent and normal communications, which are indicated in order of use preference:

- email,
- telephone,
- facsimile,
- AFTN & SITA

0.18.5 COMMUNICATIONS – GROUND TO GROUND

0.18.5.1 TELEPHONE SYSTEMS

Messages will normally be sent by one of the above methods which ensures that the message is received and recorded in written form and can be checked or recorded as received.

However, if urgent communication is required, the telephone system may be used provided that the conversation is confirmed immediately by one of the other methods of message transmission in written form.

- If you have a telephone conversation, you must ensure that your message is confirmed in written form by email.
- Telephone calls to the respective Hyperion Aviation OCC can be recorded.

0.18.5.2 TELE FACSIMILE SYSTEMS (FAX)

This system of communication is very quick and reliable. The reliability, ease and quality of email however has replaced fax in nearly all written communications. There are however territories where Fax still has an important role to play.

Copies of documents received by facsimile are now considered fully legal for submission and referral.

0.18.5.3 MESSAGE SYSTEMS – COMPUTER

All members of Hyperion Aviation administrative, management and operational staff can be contacted individually, discreetly and confidentially using email.

This system of communication is very quick and reliable. Copies of documents received by email are now considered fully legal for submission and referral.

0.18.5.4 HAND HELD RADIOS

Currently none exist within Hyperion Aviation operations', other than those used by our FBO/GSP service providers.

0.18.6 COMMUNICATIONS – GROUND TO AIRCRAFT

0.18.6.1 VHF COMMUNICATIONS

At this moment no aircraft are based at Malta airport and there is no VHF radio currently installed in OCC.

Transmitting Technique: The following technique will assist in ensuring that transmitted speech is clearly received:

- Before transmitting, check that the receiver volume is set at the optimum level and listen out on the frequency to be used to make sure that there will be no interference with a transmission from another station.
- Be familiar with microphone operating techniques and do not turn your head away from it whilst talking or vary the distance between it and your mouth. Severe distortion of speech may arise from:
  - talking too close to the microphone.
  - touching the microphone with the lips.
  - covering the microphone with the hand.
- Using a normal conversation tone, pronounce each word clearly and distinctly and do not run words together. Do not shout or whisper.
- Maintain an even rate of speech not exceeding 100 words per minute. When it is known that elements of the message will be written down by the recipients, speak at a slightly slower rate.
- Learn and use standard phraseology. Be concise and unambiguous and avoid asking questions by using inflection of the voice.
- Maintain speaking volume at a constant level.
- Do not use excessive expressions of politeness.
- A slight pause before and after numbers will assist in making them easier to understand.
- Avoid using hesitation sounds such as ‘err’.
- Fully depress the transmit switch before speaking and do not release it until the message is complete. This process will ensure that the entire message is transmitted and not clipped. However, do not depress the transmit switch until ready to speak.
- Be aware that the mother tongue of the person receiving the message may not be English. Therefore, speak clearly and use standard radiotelephony (RT) words and phrases whenever possible.

- One of the most irritating and potentially dangerous situations in radiotelephony is a stuck microphone button. Operators must ensure that the button is released after a transmission and the microphone is placed in an appropriate place to ensure that it will not be inadvertently switched on.

Note: for more information on standard phraseology, see "GOM 0.9.2".

0.18.6.2 HF COMMUNICATIONS

Not applicable for FBO/GSP staff.

0.18.6.3 ACARS/DATALINK COMMUNICATIONS

Not applicable for FBO/GSP staff.

0.18.6.4 SATCOM COMMUNICATIONS

Not applicable for FBO/GSP staff.

0.19 ENVIRONMENT PROTECTION

Hyperion Aviation is committed to the protection of the environment. FBO/GSP as partners of Hyperion Aviation should show a similar commitment.

The FBO/GSP will identify, and will ensure, that all Hyperion Aviation crew-members are informed of about all national and local environmental laws and requirements, including those related to:

- noise abatement procedures consistent with safety, including airport curfews;
- ground operations including aircraft fuelling and de/anti-icing procedures;
- spill containment of toxic and flammable materials and chemicals, including disposal of collected materials;
- disposal of waste materials;
- disposal of international garbage. (if applicable)

0.20 GROUND OPERATIONS MANAGEMENT REVIEW

Hyperion Aviation Ground Operations department participate in the respective company's yearly Management Review Meeting(s) (MRM). In this MRM Ground Operations topics will be presented, evaluated and where necessary decisions taken impacting ground operations procedures, both at home base(s) and outstations.

1 PASSENGER HANDLING PROCEDURES

GSP/FBO Handling Staff must remind passengers to check whether they carry prohibited items in either hand or checked/hold luggage. Many prohibited items can become life-threatening hazards.

1.1 PASSENGER DEPARTURE, CHECK-IN & BOARDING

Following passenger handling activities should be performed in connection with a Hyperion Aviation aircraft departure(s).

- Prepare check-in area/lounge/FBO facility, cleanliness and heating/refrigeration (if applicable & available).
- Confirm and verify the passenger name list. Check passport, visa, health, photo ID and any other required documentation.
- Ask the Security questions listed in "GOM 2.2" of this manual, ensuring that the responses are appropriate.
- All baggage must be identified as belonging to the respective passenger.
- Check that DGR and prohibited goods information is displayed for passenger review. Make the passenger aware of this information. (Both at check-in and when boarding).
- Check with passengers that no DGR items are located in either hold or cabin baggage.
- Check with passengers that no Lithium batteries are carried as spare in either hand or hold luggage
- Any prohibited items shall be reported to the Hyperion Aviation, or third-party Flight Crews.
- Weigh all baggage, and manifest it for transfer to the crew (load sheet preparation).
- Label baggage with correct destination tags (If within a given time frame multiple flights depart to the same destination).
- Note the details of any special needs' passengers and, if applicable, advise special/pre-boarding arrangements.
- Advise the passenger if the flight is on time or, if delayed, the estimated departure time.
- Explain departure procedures and give clear directions to the Departure Lounge (if required).
- Make sure that passenger's baggage is transported to the aircraft, handled with utmost care.
- When inviting the passenger to board, make eye contact with the passenger, confirm their final destination and them/hand them over to the Hyperion Aviation, or third-party operator Commander who will provide the escort to the aircraft. When arriving at the aircraft (when accompanying passengers), wish the passenger a pleasant flight (e.g.: "Thank you for travelling with Hyperion Aviation or ") and smile!
- Provide final passenger numbers to Commercial Attendant or Commander.
- When walking on the apron, ensure that the route to the aircraft is safe and clearly marked for both passengers and staff.
- Prevent unauthorized passengers or persons from embarking Hyperion Aviation, or third-party aircraft.

Passengers who are not in possession of the correct documentation, who are under the influence of alcohol or drugs, or whose behaviour may cause offence to members of the public or our staff, will be refused travel.

Passengers who advise that they are in breach of safety regulations prior to travel, e.g. passengers who claim to have bombs in their baggage or on their person should not be permitted to travel and should be referred immediately to the airport police or local law enforcement entity.

1.1.1 PASSENGER ACCEPTANCE

Hyperion Aviation reserve the right to refuse carriage or cancel the reservation of any passenger whose age, conduct, physical condition or behaviour is such that they:

- Are likely to endanger their own or other passenger's health, safety or comfort.
- Have a contagious disease.
- Are likely to cause annoyance to other passengers.
- Are incapable of self-care and travelling alone.
- Will require an unusual amount of unreasonable type of assistance or medical treatment during the flight.

In addition, such action will be necessary in order to prevent violation of any applicable laws, regulations or orders of any State or Country to be flown from, over or into.

To be accepted for a flight, the passenger must comply with the following criteria:

- To be in possession of the correct documentation.
- Not to be subject to refusal for any reason.

Important: Ensure that the passenger can be accepted for the flight before baggage is accepted.

1.1.2 PASSENGER RECEPTION & REPORTING EARLY

It is essential that facilities and procedures exist at each FBO/GSP company to ensure that our passengers are welcomed and served, friendly & efficiently. It is at the reception desk that the passengers will often make their first face-to-face contact with Hyperion Aviation, or its representative(s), therefore it is extremely important that this initial impression is a good one.

Some passengers may arrive very early for their flight; therefore, whenever possible, the FBO/GSP reception desk should be open at all times and be sufficiently manned. The reception and lounge area must be kept clean and tidy and clear of baggage trolleys and/or other clutter.

Upon arrival, direct the passenger to the lounge while taking care of his baggage and identity/immigration check(s) in case of (V)VIP handling.

Important: Ensure that Dangerous Goods and Prohibited Article information (posters, leaflets) are clearly, but tastefully, displayed.

1.1.3 ADDRESSING THE PASSENGER

Always greet the passenger with a smile, and ask for their name, flight destination (and aircraft registration). Politely request the passengers photo ID if they are travelling on a domestic flight and their Passport if travelling on an international flight.

As soon as possible, establish personal contact by calling the passenger "Sir" or "Madam". Continue to use Sir/ Madam throughout the check-in process and, at the end of the transaction, say "Thank you Sir/Madam" or if they thank you, reply "It's a pleasure".

1.1.4 CHILDREN/INFANTS

The law states that all children aged 2 years and over must be allocated a passenger seat.

1.1.5 JUMP SEAT ALLOCATION

In case of jump seat riders, consult with the Commander of the respective flight on which procedures to follow.

1.2 PASSENGER SECURITY

Note: reference: Hyperion Aviation Security Manual (Restricted Distribution)

The purpose of this short section on passenger security is to provide essential security information required for day-to-day operations, which the relevant Aviation Authority has approved for release.

At security classified airports the Airport Management and/or FBO/GSP (when operating own terminals) is responsible for the screening of passengers and their baggage. The airport shall comply with all security regulations as laid out by the relevant Aviation Authority. At public airports the screening is carried out by Airport personnel employed or contracted by the Airport Management. At private airports screening is carried out by the local Police Authority.

By law, screening shall be conducted according to relevant regulations. In practice this entails that the Police shall be on hand within the airport area. Police management may, for certain exceptions, be carried out by a duty officer at a nearby Police station.

The objective of screening is to find and prevent items, which may be used with criminal intent, from being carried into security-restricted areas or on-board, into the aircraft cabin.

It is generally not permitted to conduct any relevant corporate security measures beyond official passenger and baggage inspections.

Note: see also: “GOM 2.7 & SecM”

1.2.1 SCREENING OF CABIN BAGGAGE

Cabin baggage is screened according the relevant regulations and approved by the relevant NAA Authority.

1.2.2 DISCREPANCIES IN SCREENING

If the screening of passengers and cabin baggage at the departure airport has been carried out in an unsatisfactory way, this shall be reported to the person responsible for security at the arrival airport. Notice shall be given in time so that special measures may be taken to prevent poorly screened passengers from mixing with properly screened passengers.

In the event of someone, either from the crew or a representative from Hyperion Aviation realizing that the level of the screening of passengers and cabin baggage is defective or missing the person responsible for security at the arrival airport shall be informed as soon as possible.

In that event of passengers and their cabin baggage entering a sterile area, the arrival airport is responsible for ensuring that the aircraft is placed on a remote stand after landing and that the passengers and their cabin baggage are screened. The Airport is responsible for screened passengers in sterile areas being prevented from mixing with defectively screened passengers.

1.2.3 PASSENGER SUPERVISION (WITHIN SECURITY AREAS)

FBO/GSP Handling Staff are responsible for ensuring that passengers are supervised while in secure areas. Supervision of passengers shall include:

- boarding the correct aircraft,
- separation of departing and arriving passengers,
- passengers shall not leave any items in secured areas, and,
- prevent unauthorized passengers or persons from embarking Hyperion Aviation/or aircraft.
- Integrity of personal belongings when in care of FBO/GSP Handling Staff or in FBO/GSP premises.

1.2.4 PASSENGER TRAVEL DOCUMENTS

- Passenger travel documents verification is performed by the Hyperion Aviation Flight Deck Crew of the flight.
- Advance passenger information (API), where required, is handled by Hyperion Aviation OCC.

1.2.5 SECURITY OF CHECK-IN DOCUMENTS AND MATERIALS

At airports where FBO/GSP companies use material/documents handed to passengers in order to gain access to an Airport Security Restricted Area, those documents and other materials, such as boarding passes, baggage tags, etc. which may be used to gain access to an Airport Security Restricted Area as well as items of equipment used to issue or complete them are to be securely stored to prevent misappropriation or misuse.

In addition, where these items are issued in error, during the check-in process, they must be defaced, destroyed and all records of them removed from all relevant, related automated systems.

1.2.6 DISCLOSURE OF PASSENGER NAMES

When passengers travel with Hyperion Aviation they are entitled to privacy and there may be a good reason for not disclosing their travel arrangements.

Requests are sometimes received for information as to whether a particular passenger is travelling on a flight. If such a request is received the information must be courteously refused.

Note: see also: "GOM 0.5.3"

Exception
Information may be given to officials such as the Police, Customs and Immigration subject to proof of identity being given and a fully completed and signed Data Protection Act form being received (where applicable). This will state under which Act or section of the law the data is required and why.

If the request is made for a different reason, then it should be referred to the Hyperion Aviation or Security Department for further advice. If the information is supplied to any agency, the respective Hyperion Aviation Security Department (see contact details in “GOM Annexes 6") must be passed a copy of the signed DPA form and copies of the information provided for our records. These details should be forwarded to the respective Hyperion Aviation Security Department by e-mail, as soon as is practicable.

1.3 PASSENGER ARRIVAL AND TRANSIT

Following passenger handling activities should be performed in connection with a Hyperion Aviation aircraft arrival (and subsequent departure after transit stop).

- Prepare arrival area, cleanliness, heating/refrigeration (if applicable & available).
- When walking on the apron, ensure that the route to the aircraft is safe and clearly marked for both passengers and staff.
- Assist passengers with immigration and customs procedures.
- Make sure that passenger’s baggage is transported to the terminal/lounge/FBO, handled with utmost care.
- All baggage will be returned to the respective passenger.

For transit flight departures, see "GOM 1.1" and apply normal departure procedures.

1.4 SPECIAL CATEGORIES OF PASSENGERS

1.4.1 MINORS

Multiple occupancy of a seat by one adult and by one child younger than 2 years of age is permitted only if the child is properly secured by a loop belt or other restraint device supplementary to the adult’s safety belt harness. In such a case, and when oxygen dispensing units are prescribed, one unit each shall be available for both the adult and the child.

Unaccompanied Minors (UM) are children at less than full legal age travelling on their own, not being in the custody of a person that has attained full legal age. Unaccompanied Minors may not be carried on any Hyperion Aviation aircraft unless a commercial attendant is assigned to the flight.

1.4.2 PERSONS WITH REDUCED MOBILITY (PRM)

Note: reference: IATA AHM176 and AHM176A

The acceptance for transportation of sick, disabled and handicapped passengers is restricted in the interest of their own safety and that of other passengers. A person with reduced mobility (PRM) is understood to mean a person whose mobility is reduced due to physical incapacity, an intellectual deficiency, age, illness or any other cause of disability when using transport, and whose situation requires special attention and the adaptation, to his needs, of the service made available to

all passengers. Hyperion Aviation therefore, is entitled to insist upon the production of a written report on fitness for travel, issued by a suitably qualified medical doctor.

A passenger that is accompanied by a medical specialist can be transported on the condition that all medical support equipment required for the passenger is placed on board the aircraft.

The disabled person often knows the best way in which they can be assisted and this should be discussed with them, passengers are required to advise Hyperion Aviation or of their requirements as early as possible before the STD of their flight.
Great care must be taken when handling a disabled passenger as different disabilities have different needs and injury can result if incorrect assistance is given. Always direct questions to the disabled passenger (preferably at their level) and not to their companion and never assume that a disabled passenger cannot communicate.

In addition to the high standards of service, which Hyperion Aviation endeavour to offer to every passenger, certain categories of passengers require extra attention or guidance.

Under normal circumstances, Hyperion Aviation will not carry the following categories of passenger:

- Passengers who have an infectious disease.
- Pregnant women beyond the 34th week of pregnancy.
- Passengers who have had a coronary thrombosis within the previous three weeks.
- Passengers with a respiratory disease sufficient to cause "Dyspnoea/Dyspnoea" (Shortness of breath) at rest or on very mild exertion.
- Passengers who have undergone abdominal surgery within the previous two weeks.
- Passengers who have suffered a spontaneous pneumothorax and where the lung has not fully expanded.
- Passengers who have undergone thoracic (spine) surgery within the previous three weeks.
- Passengers who have suffered a significant haemorrhage or who are severely anaemic (e.g.: iron deficiency).
- Passengers with certain haemoglobin disorders, especially sickle cell anaemia.
- Moribund persons. (Passengers approaching death, about to die)

In exceptional circumstances, a passenger suffering from one of the above may be accepted provided that a Medical Certificate has been obtained and approved by the respective Hyperion Aviation CEO, COO or Commercial Director.

Important: Full details of any passengers requiring special attention must be given to the destination and en-route airports as soon as the aircraft departs. This will ensure that, if required, the necessary arrangements can be made to escort the passenger on arrival.

1.4.2.1 PRM PRE BOARDING

Disabled passengers and PRMs should be pre-boarded and the Crew and/or Commercial Attendant must be notified of their presence, given brief details of their condition.

1.4.2.2 PRM & EQUIPMENT

Crutches, sticks and other aids on which a passenger is dependent may be taken into the aircraft cabin. These must be secured where they do not cause obstruction, but are as accessible as possible under normal circumstances.

During an emergency evacuation they must remain stowed and assistance provided by the passenger's companion, crew members or passengers who have been briefed to help.

Passengers who are travelling with a wheelchair powered by Lithium batteries, may carry up to 2 lithium batteries for the wheelchair in the cabin. (Depending on aircraft size, not all aircraft within Hyperion Aviation's fleet are able to carry wheelchairs).

1.4.2.3 PRM CATEGORIES

There are many grades and degrees of being disabled including passengers who have a temporary disability or temporary reduced mobility, but most are covered by the following categories:

- Persons with Restricted Intellectual Ability: These passengers may be treated in the same way as Unaccompanied Minors.
- Persons with Limited Endurance: Including passengers with heart or lung conditions.
- Persons with Splints or Limbs in Plaster Casts: All passengers with broken limbs must have medical clearance to travel except:
    - Below-knee injury provided:
        - The plaster cast was applied at least 24 hours before the flight, or
        - The plaster cast is split if applied less than 24 hours before the flight (aircraft pressurisation can cause limbs to swell).
        - The knee can be bent normally.
        - The passenger can use a single aircraft seat in the normal upright position.
        - The passenger has no other broken limbs.
        - Arm injury provided:
        - The plaster cast was applied at least 24 hours before the flight, or
        - The plaster cast is split if applied less than 24 hours before the flight (aircraft pressurisation can cause limbs to swell).
        - The passenger has no other broken limbs.
        - Persons Affected by a Stroke or Lacking Muscular Control: This may show as partial paralysis, jerky and uncoordinated movements and unclear speech. Take care not to misconstrue this handicap as inebriation or intellectual impairment.
        - Persons with Paralysis including passengers who may be able to manage limited walking using braces, crutches or a stick.
        - Psychiatrically Disturbed Persons: These passengers will only be carried if adequately sedated and accompanied by an able-bodied, medically qualified adult escort who can provide restraint if necessary.

1.4.2.4 PRM SEATING

Disabled passengers and PRMs must never occupy a seat in an Emergency Exit row. They must be seated where they will not impede the crew in their duties, obstruct access to emergency equipment or hinder the speedy evacuation of the aircraft.

1.4.3 PASSENGERS REQUIRING A MEDICAL INFORMATION FORM (MEDIF)

Note: reference: IATA AHM176A/2/3

Any passenger who has recently undergone surgery or suffered a serious illness must be cleared for travel by the respective Hyperion Aviation CEO, COO or Commercial Director. It is possible that a passenger who has recently undergone surgery or suffered a serious illness may become seriously ill during the flight. It is, therefore, in everyone's interest to ensure that adequate advice is sought before accepting the passenger for travel.

1.4.3.1 PROCEDURE

Clearance for travel must be authorised by the respective Hyperion Aviation CEO, COO or Commercial Director. If necessary, the matter will be discussed with the Company doctor and, subject to their satisfaction, special arrangements will be made for the carriage of the passenger. Hyperion Aviation or Commercial Department will provide a Special Passenger Brief and "Medif" (Medical Information form) for the information of both ground staff and the Commercial Attendant. The Commander must also be advised.

The following details will be required:

a) Aircraft registration, date of travel and full routing.
b) Passenger's name, age and gender.
c) Passenger's home address.
d) Passenger's telephone number.
e) Doctor's name, address and telephone number.
f) Category of wheelchair, i.e. WCHR WCHS WCHC (see "GOM 1.4.5").

g) Details of illness or incapacitation.
h) Whether accompanied or unaccompanied.
i) If accompanied, the escort's name and qualifications.
j) Will ambulance meet the aircraft? Yes/No.
k) If yes, ambulance company name, address and telephone number.
l) Has a hospital been arranged? Yes/No.
m) If yes, hospital's name, address and telephone number.
n) Details of any assistance required in flight.
o) Details of any special meal requirements.
p) Details of any special ground arrangements.

1.4.3.2 PASSENGERS SUSPECTED HAVING A COMMUNICABLE DISEASE

Note: reference: IATA AHM181, IATA "2015 Best Practice Communicable Disease"

The following are guidelines for FBO/GSP Handling Staff who may be faced with a suspected case of communicable disease at the airport.

During an outbreak of a specific communicable disease, the World Health Organization (WHO) or member states may modify or add further procedures to these guidelines.

A communicable disease is suspected when a passenger:

- Has a visible skin rash or,
- Has a severe cough or,
- Is obviously unwell and/or,
- Complains of any of the following:
- Severe cough.
- Fever.
- Bruising or bleeding without previous injury.
- Persistent diarrhoea.
- Skin rash (non-visible).
- Persistent vomiting.

In most circumstances, the majority of these signs and/or symptoms may not be obvious at the lounge/reception desk. However, when in doubt regarding the health of a passenger, especially during an outbreak FBO/GSP Handling Staff will:

1. Call the FBO/GSP manager.
2. If the FBO/GSP manager agrees with your concerns and if medical support is available (airport medical department or outside designated physician or group) contact that support immediately.
3. If the FBO/GSP manager agrees with your concerns but medical support is not immediately available, politely deny boarding and ask the passenger to obtain medical clearance in accordance with Hyperion Aviation policy.
4. If assistance is required to escort a sick passenger, and if the sick passenger is coughing, ask him/her to wear a facemask. If no mask is available or the sick passenger cannot tolerate the mask, e.g. because of breathing difficulties, provide tissues and ask him/her to cover the mouth and nose when coughing, sneezing or talking.
   If masks are available but the sick passenger cannot tolerate a mask the FBO/GSP company should ensure that their Handling Staff don masks themselves and have adequate training in its use to ensure they do not increase the risk (for example by more frequent hand-face contact or adjusting and removing the mask).

1.4.4 PASSENGERS REQUIRING AN AMBULANCE

The airport can only arrange for an ambulance to meet a flight if a passenger is taken ill during the flight. In all other circumstances, the passenger's own doctor or medical insurance company must make the arrangements.

1.4.5 WHEELCHAIR PASSENGERS

Transport to/from the aircraft should be provided for wheelchair and infirm passengers who are unable to walk very far. They should be given assistance when boarding and disembarking aircraft and, if required, when proceeding through departure/arrival formalities.

To facilitate on/offload, such passengers should be seated as close as possible to the aircraft doors but never in the Emergency Exit rows. To assist in describing the needs of these passengers, one of the following categories should be used:

WCHR passenger:
- requires a wheelchair for distances to/from the aircraft.
- can ascend and descend steps.
- can move unaided to and from their aircraft seat.

WCHC passenger – is completely immobile:
- requires a wheelchair to and from the aircraft.
- must be carried up and down steps.
- must be carried to and from their seat.

DPNA passenger – requires assistance due to learning difficulties.

In addition, following information about wheelchair type(s) must be used in communications with destination station(s): WCMP – a manual power wheelchair belongs to the passenger and will travel in the hold of the same aircraft. WCBD – an electric power wheelchair belongs to the passenger and will travel in the hold of the same aircraft.

1.4.5.1 ELECTRIC WHEELCHAIRS

Note: reference: IATA AHM345

Electric wheelchairs with acid type wet cell batteries are classified as Dangerous Goods and will not be carried. Dry Cell and Gel battery operated wheelchairs can be accepted, provided that the weight and dimensions do not exceed the permitted maxima.

Wheelchairs, which are powered by Lithium Batteries, may be carried. Any spare batteries must be carried in the cabin (maximum of 2 per passenger).

Note: see also: “GOM 2.4.7”.

1.4.6 STRETCHERS

Hyperion Aviation aircraft do not have the facility to carry stretchers on board; therefore, stretcher passengers cannot be accepted for carriage.

1.4.7 BLIND AND DEAF PASSENGERS

Blind and deaf passengers, or passengers with restricted vision or hearing may require individual care; however, do not provide a wheelchair unless specifically requested. To facilitate on/offload, seat passengers as close as possible to the aircraft doors but never in the Emergency Exit rows.

The Commercial Attendant and/or Commander must be advised in order to give the passenger personal attention when giving the Emergency Briefing. The following points should be remembered when assisting these passengers:

1.4.7.1 BLIND PASSENGERS

a) Prefix your remarks by name or a light touch on the arm.
b) When escorting the passenger, let them take hold of your arm (they will walk slightly behind you in order to anticipate any obstacles or changes of direction).
c) Mention steps or any other obstacles.

d) Give directions according to the way the passenger is facing.
e) Put their hand on the back of the seat which they are going to occupy.

1.4.7.2 DEAF PASSENGERS

a) If possible, allocate a staff member proficient in sign language.
b) Face the passenger when talking to him as deafest passengers can lip-read.

1.4.7.3 ESCORTS

A passenger, who is travelling as an escort for a passenger with reduced mobility, is not entitled to a reduction of the published fare.

1.4.7.4 ASSISTANCE DOGS

See "GOM 1.7.2".

1.4.8 MOTHERS-TO-BE

Expectant mothers are not recommended to travel after the 28th week of pregnancy but will be carried up beyond this, provided that they can produce a medical certificate from their doctor stating that they are fit to travel. Following will have to be respected

- Flights equal to or less than 2 hours in duration up to 36 weeks,
- Flights exceeding 2 hours in duration up to 35 weeks.

A medical certificate is required over 28 weeks. Hyperion Aviation or have to receive a copy of the medical certificate prior to the flight. If the pregnancy is anything other than normal, whatever the length of the pregnancy, a doctor's certificate, stating that the passenger is fit to travel, will be required.

1.4.8.1 NEW MOTHERS

New mothers are not recommended to travel within 7 days of giving birth. In exceptional circumstances, they may be accepted for travel, but only if accompanied by a medically qualified person.

1.4.9 CARRIAGE OF INFANTS

The age of an infant is determined as being from 7 days old up to, and including, the date of its second birthday. Babies are not accepted for travel within the first 7 days of birth.

Premature and/or unhealthy babies may only be accepted for travel after receiving medical clearance their doctor. A medical certificate is required and they must be accompanied by a medically qualified person.

Every infant travelling must be accompanied by an adult as it is the responsibility of the passenger to provide sufficient care for the infant.

1.4.10 PASSENGER REQUIRING ADDITIONAL OXYGEN

A passenger who, for medical reasons, wishes to carry their own supply of oxygen, must be advised that one small cylinder may be carried in accordance with the exemptions listed in the IATA Dangerous Goods Manual.

1.4.11 DEPORTEES

See: "GOM 10".

1.5 PASSENGER DOCUMENTATION

1.5.1 INTRODUCTION

Passengers are responsible for ensuring that in addition to a flight confirmation, they have the necessary valid passport, visas, vaccination certificates and any other documentation required by any country to and/or through which they are travelling. However, it is essential that, prior to the acceptance of the passenger, all travel documents have been checked as satisfactory by the Handling Agent and/or the Commander of the Hyperion Aviation flight. Heavy fines are automatically imposed by the relevant authorities on any carrier delivering passengers with incorrect documentation.

The Travel Information Manual (TIM) or Timatic must be used as the reference document for government requirements. In the event of any dispute, the ruling published in TIM/Timatic must be considered as final. Advise Hyperion Aviation Security Management immediately if any errors are found in TIM, or if a passenger alleges that incorrect requirements are published.

A passenger must be refused travel if they are not able to comply with all the required documentation. Apply the Company's normal right of refusal and explain to the passenger that, as he may be refused entry, it is in their own interest not to travel until their documentation is in order.

1.5.2 EXCEPTIONS

In exceptional circumstances, and only at the discretion of the respective Hyperion Aviation Commercial and Security Management, a passenger may be accepted for travel provided that:

- It is certain that he will not be refused entry.
- There is no risk whatsoever of financial or other penalty to the Company.
- He has a valid ticket for (return) or onward travel, on a commercial airline, to a country for which he has the correct documents.

In extreme circumstances it may be possible to contact the arrival station for written confirmation that the passenger will be accepted.

Remember, Hyperion Aviation will be heavily fined for conveying incorrectly documented passengers.

1.5.3 CHECKLIST

Check passengers' documents against the regulations of:

- Country of departure.
- Country or countries travelled en-route.
- Country of destination.
- Entry requirements for country of original departure (returning passengers).

1.5.3.1 PASSPORTS

Date of expiry:
Some countries require passports to be valid for a certain time beyond the date of entry.

Countries for which the passport is valid:
Passports may contain entry stamps or visas (whether used or unused) that are unacceptable to the authorities of the destination country.

Check that the passport is in date and that the name on the passport matches the reservation name. Check that the photograph bears a good resemblance to the passenger in front of you. Be generally aware of anything which appears to be unusual. Ensure that the passport has not been tampered with and that all of the bio-data (name, date of birth etc.) as well as the photograph are intact. Refuse a passport which has pages which are not visible as this could hide refusal stamps.

- Beware: there are huge numbers of Syrian and Libyan passports in circulation which are official printed documents, but which have been tampered with to falsify information about the passport bearer.

- When in doubt: contact local Police or Immigration Services.

1.5.3.2 VISAS

Date of expiry:
Some countries require visas to be valid for a certain time.

Validity:
Validity may expire if a visa for a single entry has been used on a previous visit.

1.5.3.3 HEALTH CERTIFICATES

Check any requirements for vaccinations from the relevant manuals.

1.5.4 PASSPORTS

A passport is an official document, issued by a competent public authority, to nationals, or to alien residents, of the issuing country.

Passengers must hold a passport, which is valid for all of the countries to and/or through which they will travel, unless:

- An exemption to that effect is stated in the Travel Information Manual/Timatic
- They will pass through a country without leaving the airport provided that this is allowed by the regulations of that country.

1.5.4.1 NATIONALITY

The nationality of a person can be found under "nationality" or "national status" in the passport or national identity card. In general, permission to enter a country without a visa is based on a person's nationality and country of residence and NOT on the country in which the travel document was issued.

1.5.4.2 TYPES OF TRAVEL DOCUMENTS

- Normal passports.
- Children's identity cards issued to minors instead of a passport.
- Alien passport – issued to alien residents of the issuing country.
- Diplomatic or consular passports.
- Passports issued by international bodies (e.g. United Nations, Red Cross).
- Joint family passports - for persons travelling together (e.g. husband and/or wife with/without children).
- Official, special or service passports issued to government officials or other persons on government missions.
- Group passports (e.g. school parties).
- Certificates of Identity.
- Identification cards.
- Travel certificates.
- Military identification cards. This must be supported by a valid Travel Order.
- Seaman's identity document, discharge book and record.

Important: Some of these documents may have a limited validity and/or purpose; therefore, it is always necessary to check carefully that the travel document is recognised, not only by the country of final destination, but also by the authorities of any transit country.

1.5.5 VISA

A visa is an entry in a passport or other travel document, made by a consular official of a government to indicate that the bearer has been granted authority to enter, transit or re-enter the country concerned.

A visa, transit visa or visa exemption for a country does not guarantee admission to that country, the final decision being that of the competent authorities at the port of entry in the country concerned. It is necessary to carefully check the visa(s) required by the authorities of the country of destination, the country of departure (if the passenger is returning to this country) and the transit country(s).

1.5.5.1 TRANSIT

Passengers travelling in transit through a country must be able to prove that they will continue their journey within a prescribed period. This can be done by showing:

- A flight ticket for the remaining sectors of the journey (sub-load or rebate tickets are not usually acceptable when travelling on commercial airlines).
- A flight ticket for the homeward journey.

1.5.5.2 CHILDREN

Children must also comply with the regulations for entry into, transit through and departure from a country.

If a child is registered in the passport of a parent or guardian, the visa(s) and/or other endorsement in that passport must indicate that these are also valid for the child.

A child is not allowed to travel on a passport in which it is registered, if it is not accompanied by the holder(s) of that passport.

Further care must be taken when children are travelling unaccompanied, as further restrictions may apply, depending on the nationality of the child.

1.5.6 DOCUMENTS IRREGULARITIES

Passengers must be refused travel if they cannot comply with the applicable document requirements of either the country(s) of transit or country of destination and details of the Company's right to refuse carriage is given in the Company's Conditions of Carriage.

In exceptional circumstances, and only at the discretion of the respective Hyperion Aviation Commercial and Security Management, a passenger may be accepted for travel provided that:

- It is certain that he will not be refused entry.
- There is no risk whatsoever of financial or other penalty to the Company.
- He has a valid ticket for (return) or onward travel, on a commercial airline, to a country for which he has the correct documents.

In extreme circumstances it may be possible to contact the arrival station for written confirmation that the passenger will be accepted.

Remember Hyperion Aviation will be heavily fined for conveying/transporting incorrectly documented passengers.

1.6 PASSENGER IRREGULARITIES

1.6.1 PASSENGER NO-SHOW

The total numbers of passengers, checked in for the flight, including transfer and transit passengers, are registered. At boarding a control count of all passengers is carried out to ensure that the number complies with the total registered passengers.

In case a manifested passenger does not show up for boarding, Hyperion Aviation shall ensure that the hold baggage belonging to that passenger gets positively identified and removed from the aircraft before departure. (Exceptions only with approval from the respective Hyperion Aviation Director Flight Operations)

1.6.2 UNRULY PASSENGERS

See: "GOM 10"

1.7 TRANSPORT OF ANIMALS (PETC/PETH)

For safety reasons, Hyperion Aviation will request passengers to:

- have their domestic animals at least on a leash, or,
- in a specific animal hold luggage bag, or,
- in an animal cage,
- respect the animal weight limits:
- 8,5kgs on commercial flights,
- 35kgs on non-commercial flights (NCC/Non-AOC).

This way it can be avoided that animals can access the cockpit which is a sterile area. We also want to prevent animals running around airside, between passenger terminal and the aircraft.

For carriage of dogs/cats on international flights it is strongly encouraged that the dog possesses a "pet passport" and the flight is between controlled airfields enrolled in the scheme.

Other animals, like reptiles, amphibians and others should at all-times be locked in a specific adapted cage, which should never be unlocked during flight.

1.7.1 TRANSPORT OF ANIMALS TO THE UNITED KINGDOM

Dogs, cats and other animals subject to rabies control will not be accepted for carriage on flights to the Channel Islands unless the owners have signed an indemnity prior to despatch.

Notwithstanding any special approval or authorisation which may be given, the final decision as to whether an authorised animal may be carried remains with the Commander of the Hyperion Aviation aircraft having regard to regulations involving the import of animals into the United Kingdom, the Channel Islands and Eire.

1.7.2 GUIDE DOGS OR ASSISTANCE DOGS

Note: reference: IATA Live Animals Regulations (LAR)

A guide dog is trained to provide mobility assistance to a blind or partially sighted person. Guide dogs are permitted to travel on Hyperion Aviation aircraft in accordance with the following procedure:

- Dogs (on leash or in cage) must not be seated/placed in a row adjacent to an emergency exit.
- The owner should utilise a suitable harness to restrain the dog which is then attached to the owner's seat belt for take-off, landing and during turbulence.
- In cruise the restraint may be relaxed to allow the dog to achieve a comfortable position.
- Large dogs should be accommodated on the cabin floor at the owner's feet but smaller, lighter dogs may be carried on the owner's lap, restrained with a suitable harness as described above.
- No more than two dogs may be carried on Hyperion Aviation aircraft. They should be well separated throughout the cabin.

All dog organisations/associations provide appropriate briefing material for dog owners who need to be accompanied by their dog in flight.

Dogs are only allowed to travel on international flights with appropriate "pet passport" paperwork and between controlled airfields. Travel on domestic services is unrestricted.

1.8 CONDITIONS OF CARRIAGE

A copy of the Hyperion Aviation Conditions of Carriage for Passengers & Baggage, is to be found on-line on the respective Hyperion Aviation website.

A copy of our conditions of carriage must be made available to any passenger who requests it. This document details our contract with the passenger and covers the following items including, but not only, the items listed in brackets.

Refusal and Limitation of Carriage

Baggage	(unacceptable items, right of search, unchecked baggage)
Refunds	(involuntary, voluntary, refusal)
Conduct Aboard Aircraft	(electronic devices, behaviour)
Administrative Formalities	(travel documents, fines)
Liability for Damage	(death, injury to passengers, damage to baggage, baggage loss/claims) time limitations on claims and actions)

1.9 CONDUCT & CUSTOMER SERVICE

1.9.1 GENERAL

Hyperion Aviation business is caring for customers, they are the reason for the company's being, we look to them to develop our future. Anyone who comes into contact with Hyperion Aviation is a (potential) customer. Customers take many forms and each has their own respective needs.

The reasons that customers choose Hyperion Aviation to fly with are as many and varied as the customers themselves but, above all, what makes them decide to stay with us is the genuine warmth and friendliness and the highest standard of safety, service and efficiency.

Your role within your FBO/GSP organisation, as part of the Hyperion Aviation Team, is to make our customers welcome, happy and comfortable. You are an ambassador for our companies and should provide the warmest welcome and the best service. Furthermore, at the outstation, the FBO/GSP Handling Agents are the eyes and the ears of our Companies.

If you meet our customers regularly you can see what they want and hear what they ask for; your care and your attention to detail means that our guests will return again and again.

1.9.2 CONDUCT

As FBO/GSP Handling Agents you must have regard for your professional and trustworthy position. Therefore, at no time should FBO/GSP Handling Agents staff through their action(s) lower the respect which is due to them as individuals or to Hyperion Aviation as their customers (or employers).

The following would gain an unfavourable impression by Hyperion Aviation, our passengers and customers, our crews and the general public:

- Flippancy
- Indiscriminate talk,
- Misleading information,
- Unnecessarily familiar attitudes.

Passengers and customers should be addressed as "Sir" or "Madam". There are ample opportunities for FBO/GSP Handling Agents staff members to learn the passengers' surname, such as when taking details for the charter request/brief, or through the crew. The passenger will appreciate the recognition.

When in the presence of the passengers and customers, address flight deck personnel as "Captain", "First Officer".

1.9.3 SERVICE DELIVERY COMMITMENT

As FBO/GSP Handling Agents in the "front line", you are key players in product/service delivery to our customers and its development. Therefore, it is essential that the management team receives both your and our customer's feedback. See also "GOM 0.13".

We can achieve this service commitment, so important to our customers and colleagues, by teamwork and respect. How do we at Hyperion Aviation define outstanding customer service?

We apply the principle of "plus one":

- 1 per cent more effort to put things right,
- 1 extra smile,
- 1 additional item,
- 1 extra minute of your time,
- 1 more check to make sure everything is now "OK".

The results will show instantaneously and;

- They cost you little or nothing,
- They are quick and easy to do,
- They are instantly noticed and valued by our customers.

1.9.4 FIRST IMPRESSIONS

It is important for any business to present a professional image to a customer at the first point of contact as it sets the scene in the mind of the visitor, in many cases on how a business is effectively managed. A good first impression is therefore important and could make the difference in making or losing business: "You never get a second chance to make a (good) first impression".

To create a professional image and good customer service for your customers the following five customer service tips may help:

- A reception or waiting room should always be kept clean and tidy;
- Comfortable seating should be made available for customers so they can relax in comfort;
- Keep the customer up to date with what is happening and any cause of a delay;
- Provide magazines and a local newspaper so customers have something to read while waiting;
- Have at customer disposal refreshments, coffee, tea, catering, etc.

1.9.5 14 ESSENTIAL KEYS FOR INCREDIBLE CUSTOMER SERVICE

1) Keeping the service promise.
2) 5 second telephone response.
3) Documentation response within 2 days.
4) NO waiting time(s).
5) Positive employee attitudes.
6) Proactive communications.
7) Honesty and openness.
8) Systems reliability.
9) Swift reparation/problem resolution.
10) Being in the know.
11) Front-line ownership.
12) Little extras.
13) Attention to detail.
14) Immaculate appearance.

1.9.6 SERVICE RECOVERY

Hyperion Aviation stand out by the way we look after our customers when things don't go according to plan. We try to build trust with our customers and staff. We deliver what we promise time after time. Our customers sometimes accept that things can and will go wrong. Keeping that promise with the customer is one of the most important things we do.

Whatever decision you make or whatever actions you take on the ground will have a knock-on effect on someone else. You need to make sure that you tell the people who will have to deal with the customer later on in the journey about your decision(s). This will ensure a smooth transition.

If you have not had time to resolve their problem make sure that you tell the following person who will deal with the customer what has happened so far and the customer's details, this will help to make the customer feel valued.

1.9.7 CUSTOMER SERVICE - BASIC RULES

- Treat customers as you want to be treated yourself,
- Look people in the eye, welcome the customers as guest, and give them the best possible advice,
- Respect and accept customers,
- Respect our company and colleagues,
- Always remain calm and confident,
- Be visible and available at all times,
- Work as a team,
- Be informative and proactive,
- Smile - it helps overcome many problems,
- Show rather than tell our customers,
- Look smart and well groomed,
- Always wear your name tags (if available),
- Coming to work should be fun, if you are happy; our customers will be too,
- We should challenge ourselves to always do it better,
- Use the customer's name, it helps to build a relationship,
- Your customers are your top priority - show it to them,
- Recognise how important every customer is to you and (y)our organisation,
- Make sure your attitude is positive, enthusiastic and helpful,
- If you do not know something, admit it and say you will find out,
- Be attentive at all times,
- Learn everything you can about your job so that you can approach customers confidently,
- Know the location of your department in relation to other areas and departments,
- Always do a little more than is expected of you,
- Learn and listen,
- Always keep your promises,
- Attention to detail – it is the little things people remember.

1.9.8 ATTITUDE

As skilled FBO/GSP Customer Service professionals, FBO/GSP handling staff should always:

- be tactful but assertive,
- be calm under pressure,
- be confident, friendly and good with people,
- be sensitive and supportive towards people who are anxious or upset be able to work quickly and efficiently,
- be fluent in English,
- have a sound understanding of the airline industry,
- know airline and travel terminology,
- present a smart appearance, it is essential.

1.9.9 SERVICE DELIVERY

A little special attention can make the difference in anyone's travel experience. FBO/GSP Handling Staff, working in passenger reception, are to anticipate customer needs. They should be prepared for early departures, arrival of luggage, and expedition of services and assurance of hassle-free customer support.

- Passengers must be greeted by an FBO/GSP agent at the entrance gate and not inside the terminal where possible.
- If Customers require use of the Lounge, FBO/GSP agent is to ensure passengers are made comfortable: e.g. hanging coats and being tended to, during their stay in the facilities.
- FBO/GSP agent should ensure customer is offered drinks/snacks or assistance with any other requirements.

Rendering personalised services offers the chance to focus attention on passengers' individual needs. From unique diets to boarding assistance, care for mothers and babies, or families travelling with small children, or even help given to children travelling alone, the flight experience can be tailored to meet individual needs.

Comfort is sometimes simply knowing that personal needs will be given special attention. Your efforts should be directed to make all passengers feel at home.

1.9.10 PASSENGERS/CUSTOMERS TRAVELLING WITH CHILDREN & BABIES & INFANTS

1.9.10.1 PASSENGERS/CUSTOMERS TRAVELLING WITH CHILDREN

Travelling is a fun experience for most children but can be very tiring, particularly for the parent(s) or accompanying adult. FBO/GSP should provide a basic child kit to keep them occupied when waiting.

The child kit could include some coloured pencils, drawing books, mini playing cards or sticker sets, magazines with stories, jokes and activities.

Note: If serving treats to children, always check with the parent(s)/guardian(s) first.

1.9.10.2 PASSENGERS/CUSTOMERS TRAVELLING WITH BABIES/INFANTS

Even the tiniest passenger needs are considered, you could provide a range of special amenities to customers travelling with infants. These can include disposable nappies, baby lotion, fresh milk or milk formula, infant drinking cups and jars of baby food. Passengers can also have the use of a baby bassinet or sky cot provided they have requested it when making their flight booking.

1.10 FBO/GSP LOUNGE REQUIREMENTS

FBO/GSP terminal and lounges must always have good housekeeping and maintain high levels of hygiene. Always keep food and drink stock levels. After every group of passengers that leave the lounge, a check must be done to the lounge and the appropriate cleaning done. The next people using the lounge should not notice the presence of the previous people using it.

Lounges should provide customers/passengers a supremely high level of service, such as:

- Complimentary refreshments: freshly brewed tea and coffee, choice from a selection of beers, wines and spirits.
- Complimentary snacks: ensure a variety of local high-quality complementary snacks.
- Business facilities: have business work stations, conference rooms, dining areas, Wi-Fi internet access, PED-chargers, telephones and fax machines.
- Tranquil surroundings: Lounges should offer comfortable seating and peace and quiet away from the hustle and bustle of busy airport terminals.
- Fresh flowers: always have a bouquet of fresh flowers in the lounge.
- Newspapers & magazines: feature a range of complimentary newspapers and magazines.
- Toys and children books.

1.10.1 LOUNGE SANITARY FACILITIES

The FBO/GSP operator must also ensure that the sanitary facilities are kept clean and in good condition, and that there is always an adequate supply of high-quality sanitary paper and napkins, soap etc. This means that you need to put in place an effective system to maintain them to a high standard, including regular cleaning. After people use the restroom(s), a check must be done to it and the appropriate cleaning done. The next people using the restroom should not notice the presence of the previous people using it.

Always have scent material in the toilet to minimize unpleasant odours.

Always have liquid gel for hand wash, never soap. Also provide liquid hand lotion. Make sure to use small towels for people to clean their hands and have a basket where people can put them on once used.

For locations with a significant number of long-range flights, please ensure you have:

- razors,
- shampoo,
- shower gel,
- toothbrush & toothpaste,
- (female) sanitary napkins,

available, in sufficient quantities in the FBO/Lounge/Terminal restrooms.

2 BAGGAGE HANDLING PROCEDURES

2.1 GENERAL

There is a legal requirement that FBO/GSP Handling Staff who are involved in the acceptance, sorting and loading of baggage are made aware of the risks involving dangerous goods in baggage. This awareness helps to maintain the essential safety of the aircraft, its passengers and crew, by promulgating the responsibilities of staff and the vigilance that is required.

It is not practical to give our passengers individual training on the regulations. However, Hyperion Aviation, and FBO/GSP Handling Staff can and must bring to the attention of the passenger, an awareness of what may not be carried on board an aircraft either as hold baggage or carry on articles.

2.2 CABIN BAGGAGE

2.2.1 GENERAL

2.2.1.1 Definition

Cabin baggage is baggage that is carried and stowed in the cabin under the passengers' control and custody. It is commonly referred to as hand baggage, carry-on baggage or unchecked baggage.

2.2.1.2 Types of Cabin Baggage

Cabin baggage includes:

- Baggage carried within the operator's free carry-on baggage allowance.
- Free carry-on items permitted by the operator in addition to the standard allowance (e.g. purse, laptop, duty free item).
- Special items permitted by the operator that may require prior arrangement, notification and/or specialized screening or additional charges (e.g., urns containing human remains, pets).
- For items of dangerous goods permitted in cabin baggage including those items that require prior approval by the operator, see IATA DGR.

2.2.2 ACCEPTANCE

2.2.2.1 Acceptance Policies

Cabin baggage cannot be accepted if it:

- Is unsuitable for air carriage due to its weight, size or nature
- Cannot fit under the seat or be stowed in the overhead compartment
- Is unsuitably packed.

Restrictions:

- Certain items, because of their weight, size or nature are only accepted with the consent of the operator.
- For security reasons, many countries restrict the carriage of liquids, aerosols and gels in hand baggage.
- Items refused by security screening must be hold-checked as per operating airline policies.

2.3 BAGGAGE - DISCREPANCIES

If a passenger states that he has no knowledge of the contents of his baggage, then the baggage shall be searched thoroughly before it is loaded onto the aircraft. The Airport Management or local FBO/GSP is responsible for ensuring that all check-in desks/lounges/FBO terminal/desks used for international departures are equipped for baggage screening and that following five questions are asked:

1. Is this your baggage?
2. Have you packed the bags yourself?
3. Are you certain no one has put anything in your baggage?

4. Does the baggage contain a gift with contents you have no knowledge of?
5. Does the baggage contain any electrical or battery driven appliances? (See "GOM 2.3")

	If any of the first four questions should be answered with “No”, then baggage must be refused for carriage. (Exceptions only with the approval of the respective Hyperion Aviation Director Flight Operations)

2.4 HOLD BAGGAGE - ACCEPTANCE

Due to the characteristics of business aircraft operations, the baggage usually stays with the passengers until the FBO/GSP Handling Staff or Flight Crew takes custody and brings it to the aircraft where the luggage is handed over, or loaded on-board, by the Crew.

Before baggage is accepted for transportation, FBO/GSP Handling Staff, Hyperion Aviation Crews shall ensure that:

- All baggage can be identified as belonging to the respective passenger.
- Passenger passports and names are checked against the published passenger list for the applicable flight.
- Only authorized persons have access to baggage until it is loaded onto the aircraft.
- The baggage is never left unattended a-t any time.

	Hyperion Aviation assume no liability whatsoever in case of confiscation of any of the items by local Airport Authorities.
	For flights departing from airports in the USA, passengers should be advised that the U.S. Travel Security Administration (TSA) reserves the right to open any baggage if required, even if baggage is locked. Since the TSA disclaims liability for any damages caused to locked bags, it is recommended not to lock the baggage.

2.5 HOLD BAGGAGE - PROHIBITED ITEMS

2.5.1 NOTICES

Notices must be displayed at the FBO/GSP reception desk (or check-in counter) and in the lounge area informing passengers of items, which are prohibited under aviation security legislation in their hand baggage and hold baggage. Handling Staff should ensure that the passenger is aware of this information, by drawing attention to the notice.

2.5.2 RECOGNITION OF DGR

It must be remembered that dangerous items in baggage may not be easily recognised. Great care should be taken to ensure that no dangerous goods, other than those described earlier, are carried on board the aircraft. Confirmation should be sought from a passenger about the contents of any item where are suspicions that it may contain dangerous goods.

Any discovered or notified prohibited item(s) shall be reported to the Hyperion Aviation, or third-party Flight Crew.

2.5.3 SCREENING

Hold Baggage shall be screened according to the relevant NAA regulations before being loaded on-board an aircraft.

2.5.4 DANGEROUS GOODS AND HIDDEN HAZARDS

For safety and security reasons, articles such as those listed below may not be carried in the passengers’ baggage. However, some articles, such as medicines, toilet articles, medical oxygen, wheelchair battery etc. may be carried in the passenger’s baggage provided they are carried and packed in accordance with the applicable regulations.

						
Spare Batteries	**Flammable Liquids**	**Gases**	**Corrosives**	**Oxygen (O2)**	**Miscellaneous Incl. Asbestos, Dry Ice, Engines**	**Explosives & Flares**
						
Infectious Substances	**Oxidising Materials**	**Toxic Substances**	**Organic Peroxides**	**Flammable Solids**	**Magnetic Materials**	**Radioactive Materials**

- Explosives and incendiary substances and devices - explosives and incendiary substances and devices capable of being used to cause serious injury or to pose a threat to the safety of aircraft, including:
  - ammunition,
  - blasting caps,
  - detonators and fuses,
  - mines, grenades and other explosive military stores,
  - fireworks and other pyrotechnics,
  - smoke-generating canisters and smoke-generating cartridges,
  - electronic cigarettes (e-cigarettes),
  - dynamite, gunpowder and plastic explosives.

- Liquids, Aerosols and Gels (LAGs) including pastes, lotions, liquid/solid mixtures and the contents of pressurized containers, such as toothpaste, hair gel, drinks, soups, syrups, perfume, shaving foam and other items with similar consistencies might be confiscated by security personnel at certain airports in case they do not meet one of the conditions described here- below:
  a) be carried in the hold luggage; or,
  b) be carried in individual containers with a capacity not greater than 100 millilitres or equivalent in one transparent re-sealable plastic bag of a capacity not exceeding 1 litre, whereby the contents of the plastic bag fit comfortably and the bag is completely closed; or,
  c) to be used during the trip and is either required for medical purposes or a special dietary requirement, including baby food. When requested to do so the passenger shall provide proof of authenticity of the exempted LAG; or,
  d) obtained airside beyond the point where boarding passes are controlled from outlets that are subject to approved security procedures as part of the airport security programme, on condition that the LAG is packed in a Security Tamper-Evident Bag (STEB) which is a bag that conforms to the recommended security control guidelines of the International Civil Aviation Organisation, inside which satisfactory proof of purchase at airside at that airport on that day is displayed; or,
  e) obtained in the security restricted area from outlets that are subject to approved security procedures as part of the airport security programme; or,
  f) obtained at another European Union airport, on condition that the LAG is packed in a STEB inside which satisfactory proof of purchase at airside at that airport on that day is displayed; or,
  g) obtained on board an aircraft of a Community air carrier, on condition that the LAG is packed in a STEB inside which satisfactory proof of purchase on board that aircraft on that day is displayed.

Hyperion Aviation assume no liability whatsoever in case of confiscation of any of the items by Airport Authorities.

2.5.5 DIVING EQUIPMENT IN HOLD BAGGAGE

2.5.5.1 DIVING BOTTLES – SCUBA TANKS

Diving bottles must be completely depleted of all contents. The passenger must open the valves to demonstrate that the bottles are empty.

2.5.5.2 DIVING LAMPS / TORCHES

- Diving lamps can only be accepted for transportation after authorisation and are only accepted as cabin baggage.
- For details refer to the regulations for heat producing articles in "GOM 2.8"

2.5.6 SPECIAL PASSENGER GROUPS - HIDDEN DGR IN HOLD BAGGAGE

The baggage of special passenger groups is particularly suspected to contain dangerous goods. Therefore, the following passengers must be asked by check-in staff whether they carry any dangerous goods items:

- Passengers carrying back packs/camping equipment (gas stoves, matches etc.),
- Passengers with industrial type packaging (e.g. boxes, drums etc.),
- Travelling engineers/mechanics carrying tool/repair kits,
- Travelling seamen.

2.5.7 LITHIUM BATTERIES IN HOLD BAGGAGE

2.5.7.1 GENERAL

Note: reference: EASA SIB 2015-28

Lithium batteries have become the preferred energy source to power a wide variety of consumer goods ranging from mobile phones to children toys to e-bikes and passenger vehicles. Though widely used, most people are not aware that Lithium batteries are dangerous goods and can pose a safety risk if not prepared in accordance with the transport regulations.

Lithium batteries may have been the cause of, or contributed to, uncontrolled fires in cargo that lead to the loss of 3 freighter aircraft between 2006 and 2011:

- 8 February 2006: UPS, DC-8-71F, at Philadelphia International Airport, U.S.A.
- 3 October 2010: UPS, Boeing 747-400F, near Dubai, U.A.E.
- 28 July 2011: Asiana Airlines, flight 991, Boeing 747-400F, off-Jeju, South Korea

There has also been an increase in the number of incidents involving Lithium batteries carried by passengers on board commercial passenger aircraft. There have been two fires aboard Air France Boeing 777's in 2013 & 2014 and there was the 30 May 2017: JetBlue, flight 915, an Airbus 321 which made an emergency landing after smoke emitted from a carry-on bag holding an electronic device.

2.5.7.2 PROCEDURE AT CHECK-IN

FBO/GSP Handling Staff must remind all passengers individually that spare Lithium batteries are not permitted in checked baggage. In addition, they should ensure that passengers remove lithium batteries from their carry-on baggage where such baggage cannot be accommodated in the cabin.

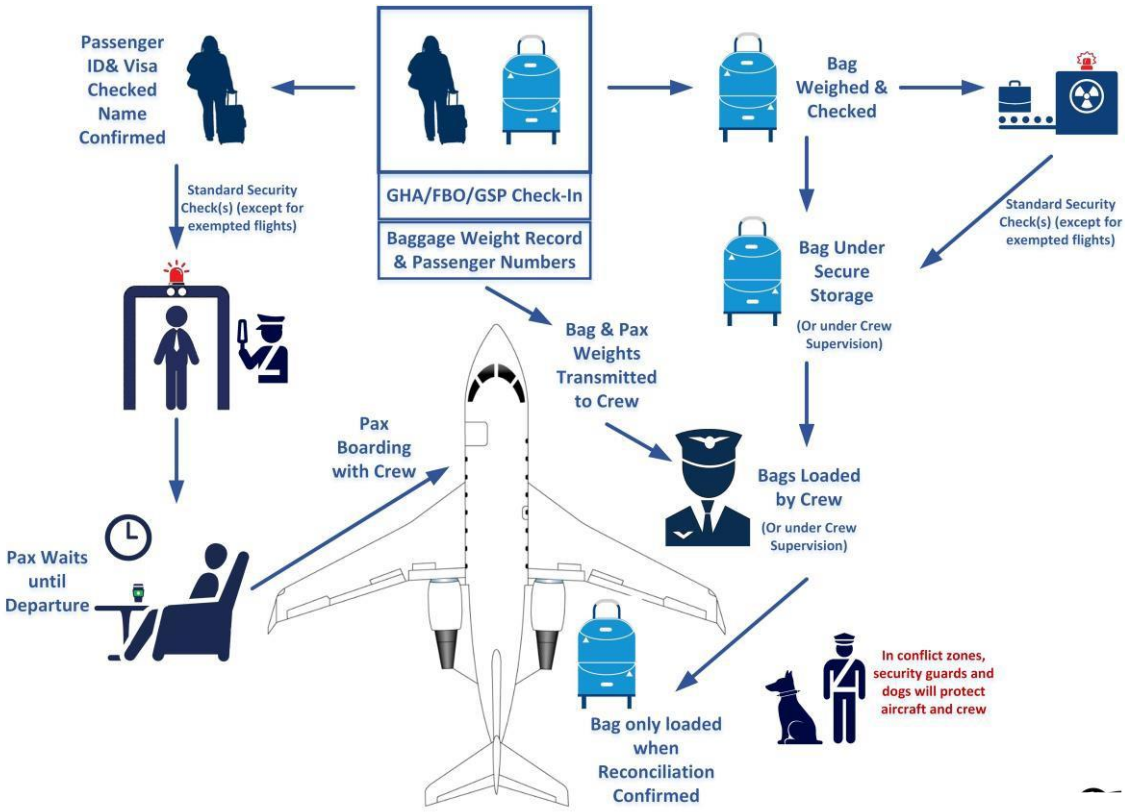
DANGER	GSP/FBO Handling Staff, and Commercial Attendants, should make passengers aware of the risks caused by PED's as a result of the (Lithium) battery being potentially short-circuited or damaged if caught in the movable part of seats, and that they should call a staff member when such situation occurs and/or whenever any abnormal situation is suspected, either on board the aircraft, or at the airport. See also GOM 1.1".

2.5.8 UNDECLARED WEAPONS IN CHECKED BAGGAGE

Firearm possession laws vary by countries and states. Passengers should familiarize themselves with country and state firearm laws for each point of travel prior to departure.

Passengers who bring undeclared and improperly packed guns to the airport are subject to possible criminal charges from local law enforcement officials as well as civil penalties. Local Law Enforcement will be notified by FBO/GSP Handling Staff of any undeclared weapon discovered.

2.6 BAGGAGE RECONCILIATION



Hyperion Aviation are responsible for ensuring that passengers who have checked in their baggage also board the aircraft. If a passenger fails to show for boarding, his/her baggage shall be identified and offloaded before departure. If the number of loaded pieces exceeds boarded passengers checked in baggage figures, which have been approved for transportation, the unauthorized pieces shall be offloaded.

Two methods may be suitable for the identification of these pieces.

1) A technical system (based on e.g. “bar-coder” and code reader) can be used for the registration and identification of pieces.
2) The identification of pieces of baggage by the passengers themselves can in certain cases lead to the identification of the unauthorized pieces by the FBO/GSP station personnel. When an unauthorized piece has been found, The FBO/GSP staff shall try to find the reason for this (for example, incorrect loading). If no explanation is found the item in question shall be regarded as a suspect dangerous item. The local applicable law enforcement agency shall be contacted for an evaluation and a decision as to whether or not the item is a dangerous item. If so, they will decide what measures are to be taken.

When establishing the presence of a dangerous item, and awaiting the law enforcement agency decision, the item should not be moved or touched. No persons shall remain in the immediate vicinity of the item in question or use any radio equipment or telephones nearby.

If an abandoned bag is located, airport personnel will attempt to identify the owner. If no explanation is found for the presence of the bag, or no one claims it, it shall be dealt with as a dangerous item. The local applicable law enforcement agency shall be contacted to evaluate and decide if the bag is a dangerous item. While waiting for their decision the piece should not be moved or touched. No person shall remain in the immediate vicinity of the piece or use radio equipment or telephones nearby.

A baggage security incident shall be treated as a stand-alone case. Besides applying the published rules and guidelines, personnel shall also apply common sense in handling the incident.

2.7 CABIN BAGGAGE - PROHIBITED ITEMS

While screening passengers and cabin baggage, items which are forbidden for carriage within the cabin, may be checked in and transported by the aircraft operator; but shall remain inaccessible during flight (where possible). Items, which are permitted for transportation as hold baggage but which shall remain inaccessible during flight shall:

- be put in suitable packaging;
- be tagged with the same routing as the passenger's other checked in baggage;
- be loaded on-board and transported, inaccessibly, during flight.

Items discovered during screening which are not permitted either in the cabin or as hold baggage will be confiscated security personnel and will be dealt with accordingly.

Any discovered or notified prohibited items shall be reported to the respective Hyperion Aviation Flight Crew.

On aircraft types where the baggage space is accessible during flight these items are to be loaded and transported so as to be as inaccessible as possible.

Passengers are not permitted to carry the following articles into security restricted areas and on board an aircraft:

a) guns, firearms and other devices that discharge projectiles - devices capable, or appearing capable, of being used to cause serious injury by discharging a projectile, including:

- firearms of all types, such as pistols, revolvers, rifles, shotguns,
- toy guns, replicas and imitation firearms capable of being mistaken for real weapons,
- component parts of firearms, excluding telescopic sights,
- compressed air and CO2 guns, such as pistols, pellet guns, rifles and ball bearing guns,
- signal flare pistols and starter pistols,
- bows, cross bows and arrows,
- harpoon guns and spear guns,
- slingshots and catapults;

b) stun(ning) devices - devices designed specifically to stun or immobilize, including:

- devices for shocking, such as stun guns, Tasers and stun batons,
- animal stunners and animal killers,
- disabling and incapacitating chemicals, gases and sprays, such as mace, pepper sprays, capsicum sprays, tear gas, acid sprays and animal repellent sprays;

c) objects with a sharp point or sharp edge - objects with a sharp point or sharp edge capable of being used to cause serious injury, including:

- items designed for chopping, such as axes, hatchets and cleavers,
- ice axes and ice picks,
- razor blades,
- box cutters,
- knives with blades of more than 6cm., (EN L 55/16 Official Journal of the European Union)
- scissors with blades of more than 6cm. as measured from the fulcrum,
- martial arts equipment with a sharp point or sharp edge,
- swords and sabres;

d) workmen's tools - tools capable of being used either to cause serious injury or to threaten the safety of aircraft, including:

- crowbars,
- drills and drill bits, including cordless portable power drills,
- tools with a blade or a shaft of more than 6cm. capable of use as a weapon, such as screwdrivers and
- chisels,
- saws, including cordless portable power saws,
- blowtorches,
- bolt guns and nail guns;

e) blunt instruments — objects capable of being used to cause serious injury when used to hit, including:

- baseball and softball bats,
- clubs and batons, such as billy clubs, blackjacks and night sticks,
- martial arts equipment;

f) explosives and incendiary substances and devices - explosives and incendiary substances and devices capable, or appearing capable, of being used to cause serious injury or to pose a threat to the safety of aircraft, including:

- ammunition,
- blasting caps,
- detonators and fuses,
- replica or imitation explosive devices,
- mines, grenades and other explosive military stores,
- fireworks and other pyrotechnics,
- smoke-generating canisters and smoke-generating cartridges,
- dynamite, gunpowder and plastic explosives.

2.7.1 PED & SPARE BATTERIES LIMITATIONS

Limitation have been adapted on the number of portable electronic devices (PED) and the number of spare batteries for the PED that may be carried by passengers or crew. The limit is:

- a maximum of 15 PED's, and
- a maximum of 20 spare batteries.

2.8 BAGGAGE SECURITY

2.8.1 HOLD BAGGAGE SECURITY

At security classified airports the responsibility lays with the Airport Operator or FBO/GSP to ensure that equipment and trained personnel are available when screening hold baggage.

Hyperion Aviation is responsible (via contracts with handling agents) to ensure that baggage is checked in according to the local applicable NAA Authorities regulations. Any deviation will be reported via an OR.

In the event that Hyperion Aviation, as a result of risk evaluation, wants to increase the level of control at international departures (for one or more departure) contact should be made with the security manager of the Airport Operator. This should be done with sufficient time to enable adequate preparation for hazard free increased control.

2.8.2 HOLD BAGGAGE HANDLING

If passengers and crew members are required to personally identify their hold baggage before loading, do not load any baggage not identified.

Ensure there is no opportunity for the exchange of cabin baggage for hold baggage which may contain items to be used in a planned act of unlawful interference.

When screening of hold baggage gives rise to suspicion regarding the contents, the local screening authority will proceed as per local regulations.

2.8.3 HOLD BAGGAGE PROTECTION & MONITORING

Each piece of hold baggage shall be protected against unauthorized access from the point it is accepted for carriage or screened, whichever is earlier up until it is loaded into the aircraft hold. Security measures shall be implemented for storage, handling systems and loading to ensure prevention of unauthorized access, tampering or introduction of prohibited articles into the hold baggage. Screened hold baggage should be kept under surveillance at all times (CCTV, physical presence, adequate lighting, etc.) and ideally be loaded immediately, by the crew, in the aircraft.

	Checked/hold baggage should never be left unattended at any time!

The following measures shall be taken to protect checked/hold baggage:

- Prior to being loaded, baggage shall be held in the baggage make-up area or other storage area of an airport to which only authorised personnel have access.
- Any person entering a baggage make-up or storage area without authorisation shall be challenged and escorted out of the area. (Inform Airport Security Services/Law Enforcement at once).
- Originating and transferred baggage shall not be left unattended on the ramp or plane-side prior to being loaded on the aircraft.
- Tail-to-tail transferred baggage shall not be left unattended on the ramp or plane side prior to being loaded.
- Access to lost-and-found offices in the terminal shall be restricted to prevent unlawful access to baggage and materials.

When any package/baggage appears to be damaged or leaking and is found on an aircraft or on the ramp/baggage area the Commander must be informed as it could contain dangerous goods.

2.9 MISHANDLED BAGGAGE

Passengers whose baggage is damaged or lost, in the process of loading/unloading or transport, should be directed to contact Hyperion Aviation - Ground Operations Management

2.10 CARRIAGE OF DANGEROUS GOODS

2.10.1 APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS

Dangerous goods can only be carried according to the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (Technical Instructions), irrespective of whether the flight is wholly or partly within or wholly outside the territory of a State.

“Not applicable for company operation. Refer to operations specifications"

2.10.2 GENERAL EXCEPTIONS

2.10.2.1 AIRWORTHINESS AND OPERATIONAL ITEMS

An approval is not required for dangerous goods, which are required to be aboard the aircraft such as:

a) items for airworthiness or operating reasons or for the health of passengers or crew, such as batteries, fire extinguishers, first-aid kits, insecticides, air fresheners, life rafts, escape slides, life-saving appliances, portable oxygen supplies, tritium signs, smoke hoods, passenger service units;
b) aerosols, alcoholic beverages, perfumes, colognes, liquefied gas lighters and portable electronic devices containing lithium metal or lithium ion cells or batteries provided that the batteries meet the provisions applicable when carried by passengers and crew) carried aboard an aircraft by the operator for use or sale on the aircraft during the flight or series of flights, but excluding non-refillable gas lighters and those lighters liable to leak when exposed to reduced pressure; and,
c) dry ice intended for use in food and beverage service aboard the aircraft; and,
d) electronic devices such as electronic flight bags, personal entertainment devices, credit card readers, containing lithium metal or lithium ion cells or batteries and spare lithium batteries for such devices carried aboard an aircraft by the operator for use on the aircraft during the flight or series of flights, provided that the batteries meet the provisions applicable to the carriage of portable electronic devices containing lithium or lithium ion cells or batteries by passengers (see the entry for 'consumer articles' in the table produced at "GOM 2.8.6"). Spare lithium batteries must be individually protected so as to prevent short circuits when not in use.

Note: Dangerous goods intended as replacements for those referred to in "GOM 2.8.4.1 a, b and c" above may not be carried without the approval referred to in "GOM 2.8.1" and unless consigned and accepted for transport in accordance with the ICAO Technical Instructions.

2.10.2.2 VETERINARY AID

Note: reference: EASA CAT.GEN.MPA.200 (b)(1)

An approval is not required for dangerous goods, which are carried for use in flight as veterinary aid or as a humane killer for an animal. Such dangerous goods must be stowed and secured during take-off and landing and at all other times when deemed necessary by the Commander. The dangerous goods must be under the control of trained personnel during the time when they are in use on the aircraft.

Dangerous goods may be carried on a flight made by the same aircraft before or after a flight for which they are required as veterinary aid or as a humane killer for an animal, when it is impracticable to load or unload the dangerous goods immediately before or after the flight, subject to the following conditions:

a) the dangerous goods must be capable of withstanding the normal conditions of air transport;
b) the dangerous goods must be appropriately identified (e.g. by marking or labelling);
c) the dangerous goods may only be carried with the approval of the operator;
d) the dangerous goods must be inspected for damage or leakage prior to loading;
e) loading must be supervised by the operator;
f) the dangerous goods must be stowed and secured in the aircraft in a manner that will prevent any movement in flight which would change their orientation;
g) the Commander must be notified of the dangerous goods loaded on board the aircraft and their loading location. In the event of a crew change, this information must be passed to the next crew;
h) all personnel must be trained commensurate with their responsibilities; and,
i) the provisions for Dangerous Goods Accident and Incident Reporting

2.10.2.3 MEDICAL AID FOR A PATIENT

Note: reference: EASA CAT.GEN.MPA.200 (b)(1)

An approval is not required for dangerous goods which:

1) are placed on board an aircraft with the approval of the operator; or,
2) form part of the permanent equipment of the aircraft when it has been adapted for specialised use, to provide, during flight, medical aid for a patient, such as gas cylinders, drugs, medicines, other medical material (e.g. sterilising wipes) and wet cell or lithium batteries, providing:

a. the gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;
b. the drugs and medicines and other medical matter are under the control of trained personnel during the time when they are in use;
c. the equipment containing wet cell batteries is kept, and when necessary secured, in an upright position to prevent spillage of the electrolyte; and,
d. proper provision is made to stow and secure all the equipment during take-off and landing and at all other times when deemed necessary by the commander in the interests of safety.

These dangerous goods may also be carried on a flight made by the same aircraft to collect a patient or after that patient has been delivered when it is impracticable to load or unload the goods at the time of the flight on which the patient is carried.

Note: The dangerous goods carried may differ from those identified above due to the needs of the patient. These provisions apply both to dedicated air ambulances and to temporarily modified aircraft.

2.10.2.4 EXCESS BAGGAGE BEING SENT AS CARGO

An approval is not required for dangerous goods contained within items of excess baggage being sent as cargo provided that:

a) the excess baggage has been consigned as cargo by or on behalf of a passenger;
b) the dangerous goods may only be those that are permitted by and in accordance with "GOM 2.8.6" to be carried in checked baggage; and,
c) the excess baggage is marked with the words “Excess baggage consigned as cargo”.

With the aim of preventing dangerous goods, which a passenger is not permitted to have, from being taken aboard an aircraft in excess baggage consigned as cargo, any organization or enterprise accepting excess baggage consigned as cargo should seek confirmation from the passenger, or a person acting on behalf of the passenger, that the excess baggage does not contain dangerous goods that are not permitted and seek further confirmation about the contents of any item where there are suspicions that it may contain dangerous goods that are not permitted.

2.10.3 ITEMS THAT MAY BE CARRIED BY PASSENGERS AND CREW

Note: reference: EASA CAT.GEN.MPA.200 (b)(2), IATA DGR

International standards permit the carriage of the dangerous goods listed below by passengers or crewmembers either as or in carry-on baggage or checked baggage or on their person. Additional restrictions may be implemented by the respective applicable NAA in the interests of aviation security.

Certain items listed are permitted only with the respective Hyperion Aviation approval. Requirements apply to some items regarding the means by which they are prepared for transport (e.g. wheelchairs and battery-powered mobility devices) or the professional status of the passenger (e.g. Chemical Agent Monitoring Equipment). Passengers are expected to declare to Hyperion Aviation/or their intention to carry an item. Details will be passed to those applicable FBO/GSP (as required).

An approval is not required for those dangerous goods, which, according to the Technical Instructions, can be carried, by passengers or crewmembers as per the following table located in OM A Sections 9.1.5
Note: Should it be necessary to transfer carry-on baggage to the hold (e.g. due to the size of the baggage preventing proper stowage in the cabin) it is necessary for cabin crew to verify that the baggage contains no dangerous goods that are permitted for carriage in carry-on baggage only (e.g. spare lithium batteries, heat producing articles etc.).

Note: Any discovered or notified prohibited items shall be reported to the Hyperion Aviation, or third-party Flight Crew.

Provisions for Dangerous Goods Carried by Passengers or Crew - current IATA Dangerous Goods Regulations.

2.10.4 PROVISION OF INFORMATION TO PASSENGERS

Note: reference: CAT.GEN.MPA.200 (f)

Hyperion Aviation will ensure that information as to the types of dangerous goods, which a passenger is forbidden from transporting aboard an aircraft, is provided at the point of the booking of a flight.

Hyperion Aviation will ensure that notices warning passengers as to the type of dangerous goods, which are forbidden for transport aboard an aircraft, are prominently displayed in sufficient number at the aircraft boarding areas and VIP lounges.

Additionally, Hyperion Aviation are also responsible to inform the passengers on those dangerous goods which may be carried by passengers in accordance with the table above.

All the above is accomplished by means of information in the FBO/GSP boarding area and/or VIP lounge, which is visible to all passengers prior to the boarding process.

With the aim of preventing dangerous goods which passengers are not permitted to have from being taken on board an aircraft in their baggage or on their person, the responsible handling staff or flight crew members will seek confirmation from a passenger that they are not carrying dangerous goods that are not permitted, and seek further confirmation about the contents of any item where there are suspicions that it may contain dangerous goods that are not permitted.

Note: Many innocuous-looking items may contain dangerous goods.
Note: Any discovered or notified prohibited items shall be reported to the Hyperion Aviation, or third-party Flight Crew.

2.10.5 MARKING AND LABELLING OF PACKAGES

Articles and substances meeting the dangerous goods classification criteria are assigned a ‘UN Number’ under the United Nations classification system. This consists a four-digit number preceded by the capital letters ‘UN’. Packages of dangerous goods must be marked with the UN Number(s) applicable to their contents.

Packages containing dangerous goods can also be identified by labels indicating the hazard of the goods by their class or division or by the presence of certain handling labels/markings.

Note 1: As no approval for the transport of dangerous goods is held, dangerous goods bearing any UN Number, hazard label; the radioactive material, excepted package handling label; the lithium battery handling label; the environmentally hazardous substances marking; or the excepted or limited quantities marking must not be loaded on an aircraft (except as identified in “GOM 2.8.4”).

Note 2: When dangerous goods markings or labels are seen on items not declared as dangerous goods it is often an indication that they do contain such goods. Undeclared dangerous goods must not be loaded on an aircraft and must be reported.

Class 1 – Explosive(s)			
			
* Division and compatibility group	* Compatibility group	* Compatibility group	* Compatibility group

Class 2 – Gas(es)		
		
Flammable gas (Division 2.1)	Non-flammable, non-toxic gas (Division 2.2)	Toxic gas (Division 2.3)

Class 3 – Flammable Liquid(s)

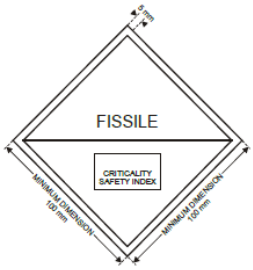

Class 4 – Flammable Solid(s)		
		
Flammable solid (Division 4.1)	Substance liable to spontaneous combustion (Division 4.2)	Substance which, in contact with water, emits flammable gas (Division 4.3)

Class 5 – Oxidising Substances and Organic Peroxides

	
Oxidising substance (Division 5.1)	Organic peroxide (Division 5.2) (flame may be black or white)

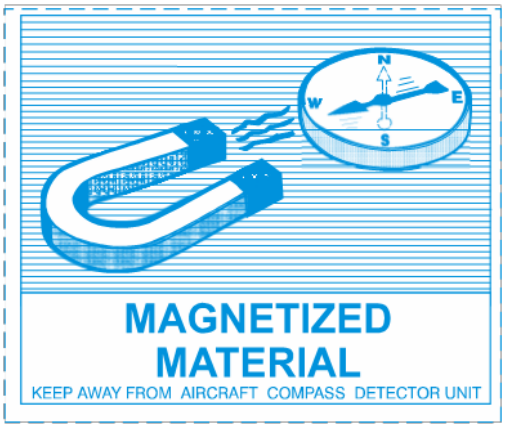
Class 6 – Toxic and Infectious Substance(s)		
		The bottom part of the label should bear the inscription: "INFECTIOUS SUBSTANCE — In case of damage or leakage immediately notify public health authority"
Toxic substance (Division 6.1)	Infectious substance (Division 6.2)	

Class 7 – Radioactive Material(s)

		
Category I	**Category II**	**Category III**
		
Criticality safety index label		

Class 8 – Corrosive(s)

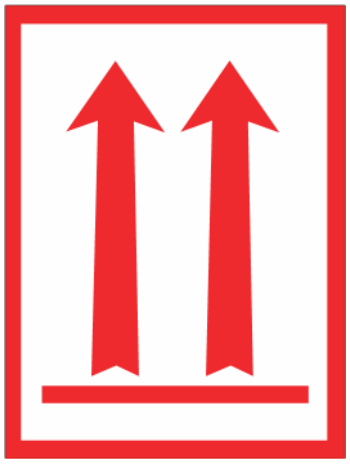

Class 9 – Miscellaneous

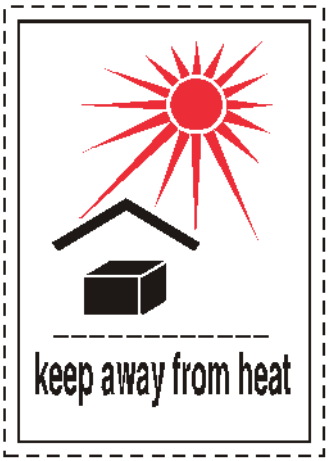
Magnetized Material

Cargo Aircraft Only

Cryogenic Liquid Label



Package Orientation Label



Keep Away from Heat Label

Application of the lithium battery handling label to a consignment of lithium batteries (of any type) indicates that the Shipper has determined specific requirements have been met. Such consignments do not need to be accompanied by a dangerous goods transport document (Shipper's Declaration) and no acceptance check is required. Consignments bearing the lithium battery label must be accompanied with a document such as an air waybill with:

- an indication that the package contains lithium metal cells or batteries;
- an indication that the package must be handled with care and that a flammability hazard exists if the package is damaged;
- an indication that special procedures should be followed in the event the package is damaged, to include inspection and repacking if necessary;
- a telephone number for additional information; and,
- when an air waybill is issued the applicable Packing Instruction must be stated together with the words 'not restricted'; and 'lithium ion batteries' or 'lithium metal batteries' as applicable.

	Packages containing excepted quantities of dangerous goods can be identified from the following: Hatching and symbol of the same colour, black or red, on white or suitable contrasting background. • * = Place for class or, when assigned, the division number(s). • ** = Place for name of shipper or consignee, if not shown elsewhere on the package.
	Packages containing limited quantities of dangerous goods can be identified from the following: Many dangerous goods when in reasonably limited quantities present a reduced hazard during transport and can safely be carried in good quality packaging(s) that have not been tested and marked as is required for UN Specification packaging required for larger quantities of dangerous goods. Packages containing limited quantities of dangerous goods must be marked with a diamond shaped mark. When presented for carriage by air, the mark must additionally include a "Y" which indicates compliance with the provisions of the ICAO Technical Instructions, some of which are more stringent than those of the UN Model Regulations and of other modes of transport. Note: The marking depicted here but without the 'Y' indicates that the package contains dangerous goods in limited quantities as permitted by surface transport regulations (ADR/IMDG) which may not be acceptable for air transport. A package so marked and offered for transport in the absence of a dangerous goods transport document must be reported to the appropriate authority where the goods are discovered as a discovery of undeclared dangerous.
	Packages containing environmentally hazardous substances (UN Nos. 3077 and 3082) must be durably marked with the environmentally hazardous substance mark with the exception of single packaging's and combination packaging's containing inner packaging's with contents of 5L or less for liquids; or contents of 5 kg or less for solids. ALL packages containing environmentally hazardous substances must bear a Class 9 hazard label.

2.10.6 DUTIES OF ALL PERSONNEL INVOLVED

2.10.6.1.1 DETAILED ASSIGNMENTS OF RESPONSIBILITIES

Note: reference: CAT.GEN.MPA.200 (d)

The table below describes the responsibilities assigned to the different categories of staff of Hyperion Aviation (Both Hyperion Aviation are non-dangerous goods approved operators).

2.10.6.2 DANGEROUS GOODS RESPONSIBILITIES

Employees receiving or handling internal COMAT and AOG materials	Recognition of undeclared dangerous goods in cargo, mail, passenger baggage and company materials (COMATs) and materials or spare parts required to assist in technical aircraft defects (AOGs).
	Dealing with dangerous goods that are found damaged or leaking during processing for transport.
	If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is to be made to the appropriate Authority by using an internal ASR/DG form or Dangerous Goods Occurrence Report Form.
Staff handling passengers	Ensuring that the provisions concerning passengers and dangerous goods are complied with.
	Recognition of undeclared dangerous goods.
	Ensuring that DGR notices, preferably including visual aids giving information about the transport of dangerous goods, are displayed in sufficient number and prominence at each of the places at the airport/terminal/FBO where passengers are either checked in, or are welcomed in a lounge, before aircraft boarding takes place, and/or at any other location where passengers are checked in and boarded (e.g. VIP lounges).
	If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is to be made to the appropriate Authority by using an internal ASR/DG form or Dangerous Goods Occurrence Report Form.
Flight crew members	Ensuring that the provisions concerning passengers and dangerous goods are complied with.
	Correctly responding to a dangerous goods incident or accident in the cabin / cargo holds.
	If there is dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is to be made to the appropriate Authority by using an internal ASR/DG form or Dangerous Goods Occurrence Report Form.
Operations Personnel	Providing Flight crew members and other personnel with information relevant to dangerous carried by passengers (e.g. when the PIC must be informed or a special deviation has been obtained), or when further feedback should be required during the operation of the flight.
	If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is to be made to the appropriate Authority by using an electronic ASR Dangerous Goods Occurrence Report. Operations Personnel responsible for handling such reports should act according the internal procedures described in the respective Hyperion Aviation Operations Manual OM/A.
Dangerous Goods Instructor	Provision of initial and recurrent dangerous goods training according to the dangerous goods training program as defined in OM/D, and which commensurate with the responsibilities of the employees concerned.
	Provide the training department with a certificate and a training log file of each employee who successfully passed the dangerous goods exam.
Flight Operations Manager	Considering passenger requests for approval for items of dangerous goods requiring such approval.
	Providing Flight crew members and other personnel with information relevant to dangerous carried by passengers (e.g. when the PIC must be informed or a deviation from the non- dangerous goods approved policy has been obtained), or when further feedback should be required during the operation of the flight.
Compliance Monitoring Manager / Safety manager	Establishment and operation of the Compliance Monitoring System and the Safety Management System to monitor compliance with procedures for dangerous goods, provisions of dangerous goods training, etc.
	If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is to be made to the appropriate Authority by using an electronic ASR Dangerous Goods Occurrence Report. Operations Personnel responsible for handling such reports should act according the internal procedures described in chapter 11.

	Collation and assessment of details of dangerous goods incidents, accidents and the discovery of undeclared dangerous goods, as well as risk & hazard analysis within the accident prevention and flight safety program and the Safety Management System (SMS); and if applicable coordination of the corrective actions required.

2.10.7 RECOGNITION OF UNDECLARED / HIDDEN DANGEROUS GOODS

Note: reference: EASA CAT.GEN.MPA.200(e)

2.10.7.1 'HIDDEN' DANGEROUS GOODS

FBO/GSP handling staff must be alert to indications that undeclared dangerous goods are present within cargo, mail or stores. Personnel interfacing with passengers must be alert to indications that prohibited dangerous goods are carried by passengers or within their baggage.

Note: The discovery of undeclared or mis-declared dangerous goods or the discovery of dangerous goods forbidden for carriage by passengers must be reported to the competent authority.

The following is a list of general descriptions that are often used for items in cargo or in passengers' baggage and the types of dangerous goods that may be included in any item bearing that description. It speaks for itself that the likelihood is near non-existent for many of the mentioned items, especially the larger ones, that they would ever be carried on board the Hyperion Aviation fleets. They are however mentioned for completeness, and to create awareness about hidden DGR.

AOG aircraft on ground, spares	May contain explosives (flares or other pyrotechnics), chemical oxygen generators, unserviceable tyre assemblies, cylinders of compressed gas (oxygen, carbon dioxide or fire extinguishers), fuel in equipment, wet or lithium batteries, matches.
Automobile parts (car, motor, motorcycle)	May include engines, carburettors or fuel tanks that contain or have contained fuel, wet batteries, compressed gases in tyre inflation devices and fire extinguishers, air bags, etc.
Breathing apparatus	May indicate cylinders of compressed air or oxygen, chemical oxygen generators or refrigerated liquefied oxygen.
Camping equipment	May contain flammable gases (butane, propane, etc.), flammable liquids (kerosene, gasoline, etc.) or flammable solids (hexamine, matches, etc.).
Chemicals	May contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
Consolidated consignments ("groupages")	May contain any of the defined classes of dangerous goods.
Cylinders	May contain compressed or liquefied gas. (Scuba Tanks)
Dental apparatus	May contain flammable resins or solvents, compressed or liquefied gas, mercury and radioactive material.
Diagnostic specimens	May contain infectious substances. (Urgent medical transport)
Diving equipment	May contain cylinders of compressed gas (e.g. air or oxygen). May also contain high intensity diving lamps that can generate extreme heat when operated in air. In order to be carried safely, the bulb or battery should be disconnected.
Drilling and mining equipment	May contain explosive(s) and/or other dangerous goods.
Dry shipper (vapour shipper)	May contain free liquid nitrogen. Dry shippers are only not subject to these Instructions when they do not permit the release of any free liquid nitrogen irrespective of the orientation of the packaging.
Electrical equipment	May contain magnetised materials, mercury in switch gear, electron tubes or wet batteries.

Electrically-powered apparatus (wheelchairs, lawn mowers, golf carts, etc.)	May contain wet batteries.
Expeditionary equipment	May contain explosives (flares), flammable liquids (gasoline), flammable gas (camping gas) or other dangerous goods.
Film crew and media equipment	May contain explosive pyrotechnic devices, generators incorporating internal combustion engines, wet batteries, fuel, heat-producing items, etc.
Frozen embryos	May be packed in refrigerated liquefied gas or dry ice (solid carbon dioxide).
Frozen fruit, vegetables, etc.	May be packed in dry ice.
Fuel control units	May contain flammable liquids.
Hot-air balloon	May contain cylinders with flammable gas, fire extinguishers, engines (internal combustion), batteries, etc.
Household goods	May contain items meeting any of the criteria for dangerous goods. Examples include flammable liquids such as solvent-based paint, adhesives, polishes, aerosols (for passengers, those are not permitted under ICAO Technical Instructions 8.1.1.2), bleach, corrosive oven or drain cleaners, ammunition, matches, etc.
Instruments	May conceal barometers, manometers, mercury switches, rectifier tubes, thermometers, etc. containing mercury.
Laboratory/testing equipment	May contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
Machinery parts	May contain flammable adhesives, paints, sealants and solvents, wet and lithium batteries, mercury, cylinders of compressed or liquefied gas, etc.
Magnets and other items of similar material	May individually or cumulatively meet the definition of magnetised material.
Medical supplies	May contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
Metal construction material	May contain Ferro-magnetic material which may be subject to special stowage requirements due to the possibility of affecting aircraft instruments.
Metal fencing	May contain Ferro-magnetic material which may be subject to special stowage requirements due to the possibility of affecting aircraft instruments.
Metal piping	May contain Ferro-magnetic material which may be subject to special stowage requirements due to the possibility of affecting aircraft instruments. May contain items meeting any of the criteria for dangerous goods. Examples include fireworks, flammable household liquids, corrosive oven or drain
Passengers' baggage	cleaners, flammable gas or liquid lighter refills or camping stove cylinders, matches, ammunition, bleach, aerosols not permitted (toxic, etc.).
Pharmaceuticals	May contain items meeting any of the criteria for dangerous goods, particularly radioactive material flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
Photographic supplies	May contain items meeting any of the criteria for dangerous goods, particularly heat-producing devices, flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
Racing car or motorcycle team equipment	May contain engines, carburettors or fuel tanks that contain fuel or residual fuel, wet batteries, flammable aerosols, nitro-methane or other gasoline additives, cylinders of compressed gases, etc.
Refrigerators	May contain liquefied gases or an ammonia solution.
Repair kits	May contain organic peroxides and flammable adhesives, solvent-based paints, resins, etc.
Samples for testing	May contain items meeting any of the criteria for dangerous goods, particularly infectious substances, flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.

Semen	May be packed with dry ice or refrigerated liquefied gas (see also dry shipper).
Swimming pool chemicals	May contain oxidising or corrosive substances.
Switches in electrical equipment or instruments	May contain mercury.
Tool boxes	May contain explosives (power rivets), compressed gases or aerosols, flammable gases (butane cylinders or torches), flammable adhesives or paints, corrosive liquids, etc.
Torches	Micro torches and utility lighters may contain flammable gas and be equipped with an electronic starter. Larger torches may consist of a torch head (often with a self-igniting switch) attached to a container or cylinder of flammable gas.
Unaccompanied passengers' baggage/personal effects	May contain items meeting any of the criteria for dangerous goods. Examples include fireworks, flammable household liquids, corrosive oven or drain cleaners, flammable gas or liquid lighter refills or camping stove cylinders, matches, bleach, aerosols, etc. Note: Excess baggage carried as cargo may contain certain dangerous goods.
Vaccines	May be packed with dry ice.

2.10.7.2 IDENTIFICATION OF DANGEROUS GOODS THROUGH X-RAY SCREENING

Persons conducting security screening of cargo should be alert to the presence of dangerous goods within packages that are not marked and labelled as dangerous goods and/or not accompanied by a Shipper's Declaration. In particular, items such as aerosols, ammunition, gas cylinders (camping gas, cylinders attached to life-jackets, etc.), cigarette lighters and wet acid batteries can be readily identified from x-ray images.

Information provided on an air waybill or marked on a package often indicates that a consignment contains no dangerous goods. In the absence of such annotation by the shipper, should suspicions be raised by the size and shape of the contents of a package, consideration should be given to opening and hand-searching the consignment to verify that no undeclared dangerous goods are present.

2.10.7.3 SAFETY DATA SHEETS

REACH (Registration, Evaluation, Authorisation & restriction of Chemicals) is a European Union regulation controlling chemicals in Europe. REACH requires for many substances and mixtures, a Safety Data Sheet (SDS) to be provided either before or at the time of first delivery. Section 14 of the EU format SDS provides basic classification information, i.e. UN number, proper shipping name, Class/Division and Packing Group.

2.10.7.4 CONSUMER LABELLING (OVERVIEW)

Some everyday household items bear "consumer warning" labels, which may or may not indicate they are classified as dangerous goods in air transport. All over the world there are different laws on how to identify the hazardous properties of chemicals (called 'classification') and how information about these hazards is then passed to users (through consumer supply labels and safety data sheets for workers). This can be confusing because the same chemical can have different hazard descriptions in different countries. For example, a chemical could be labelled for supply as 'toxic' in one country, but not in another. For this reason, the UN brought together experts from different countries to create the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Within Europe the Regulation on Classification, Labelling and Packaging of Substances and Mixtures (known as the CLP Regulation) provides a transitional period to allow a gradual migration to the GHS regime. The Regulation already applies to the classification of substances and will apply to mixtures from 1 June 2015. In the meantime, suppliers may continue to label goods according to the Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP). However, they may as an alternative choose to classify, label and package mixtures according to CLP. There are, therefore, two systems of consumer supply labelling that may indicate the presence of dangerous goods.

2.10.7.4.1 GHS LABELS

Products bearing the following GHS labels are classified as dangerous goods:

						
Explosives	Flammable	Gas under pressure	Oxidising	Acute toxicity	Hazardous environment	Corrosive

Note: A product bearing the GHS corrosive label (depicted far right above) is NOT classified as dangerous goods if the signal word 'Danger' and hazard statement 'causes serious eye damage' applies.

Products bearing the following GHS labels (and none of the above) are not classified as dangerous goods:

	
Health Hazard Hazardous to the Ozone Layer	Serious Health Hazard

2.10.7.5 CHIP LABELS

CHIP labels, for mixtures, have been replaced by the Globally Harmonized System (GHS) of labelling on 1 June 2015. Information on CHIP had to be removed after 1 June 2017 once transitional arrangements ceased to apply, and as such are no longer shown in this GOM.

2.10.8 CONDITIONS UNDER WHICH WEAPONS, MUNITIONS OF WAR AND

SPORTING WEAPONS MAY BE CARRIED

Note: reference: CAT.GEN.MPA.155, CAT.GEN.MPA.160

2.10.8.1 ARMS AND AMMUNITIONS DEFINITION

Objects that by their external shape or marking give the impression of being weapons, munitions, or explosive or inflammable substances or can be used as such. General Restrictions Carriage of arms and ammunition is covered by IATA Resolution 745a. Weapons or ammunition with explosive or incendiary projectiles may not be carried as checked baggage. Military weapons may not be carried as checked baggage.

Any arms and ammunition, which are permitted for transportation, must be checked-in and carried in hold. Carriage in the cabin is not permitted.

Transportation of arms and ammunition is under the passenger's own responsibility.

2.10.8.1.1 NEED FOR APPROVAL TO TRANSPORT MUNITIONS OF WAR

Note: reference: EASA CAT.GEN.MPA.155

Weapons of war and munitions of war can only be carried, provided an approval to do so, has been granted by all the States concerned, before a flight. They must be carried in the aircraft in a place, which is inaccessible to passengers during flight and, in the case of firearms, unloaded, except as specified in "GOM 2.8.11.2" and "GOM 2.8.11.4" below.

Note: Hyperion Aviation does not hold an approval for the transport of Munitions of War by Air.

2.10.8.2 STOWAGE REQUIREMENTS FOR MUNITIONS OF WAR

Note: reference: EC Regulation 300/2008 and its amendments (1998/2015)

In exceptional circumstances, weapons of war and munitions of war may be carried other than in an inaccessible place on the aircraft and may be loaded, provided an approval to do so has been granted by all the States concerned before a flight. These exceptional circumstances are intended primarily to permit the carriage of Law Enforcement Officers (LEO), Protection Officers (Bodyguards), etc.

Only official Law Enforcement Officers may carry firearms on board an aircraft while on duty in accordance with most local laws usually described as "Weapons and Ammunition Act".

The relevant authority is responsible for the approval and revision of applications for consent to carry weapons by persons in the cabin section.

2.10.8.3 NOTIFYING COMMANDER OF THE CARRIAGE OF MUNITIONS OF WAR

Note: reference: EASA CAT.GEN.MPA.155

The Commander must be notified before a flight if weapons of war or munitions of war are to be carried on the aircraft.

2.10.8.4 CARRIAGE & ACCEPTANCE OF HUNTING/SPORTING WEAPONS WHEN INACCESSIBLE TO PASSENGERS DURING FLIGHT

Note: reference: EASA CAT.GEN.MPA.160, IATA Resolution 745a

Hunting/sporting weapons and ammunition for such weapons may be carried without an approval from an Authority, provided they are stowed in a place on the aircraft which is inaccessible to passengers during flight and, in the case of firearms, unloaded.

- Reservations for hunting/sporting weapons must be made at the time of booking of the flight and no later than 72 hours prior to departure.
- The Commander has to be notified accordingly.
- No weapons and/or security-removed items of any kind may be transported in the flight deck, aircraft cabin or any other aircraft area accessible during flight.
- All reasonable measures must be taken to ensure Hyperion Aviation are made aware of the intended carriage of hunting/sporting weapons and ammunition.
- Ammunition is considered dangerous goods; consequently, acceptance is limited;
- Only ammunition for hunting/sporting weapons of small calibre may be accepted as checked baggage for carriage in the aircraft hold.

2.10.8.4.1 HUNTING/SPORTING WEAPONS & AMMUNITION – LOADING INSTRUCTIONS

- Arms must be unloaded.
- Arms must be suitably packed, in a strong rigid container made of (hard) leather, wood, metal or fibre.
- Ammunition must be suitably packed and separated from Hunting/sporting weapon(s).
- Only ammunition for hunting and sporting weapons will be accepted up to a maximum of 5kg / 11lb gross weight per passenger and only for carriage in the aircraft hold.

2.10.8.5 REGULATIONS

The passenger as well as Hyperion Aviation personnel must observe all regulations applicable to the export, import and transit of weapons and ammunition, applicable in the country of departure, transit and destination.

Note 1: Passenger must always provide a permit for weapons in need of permit.
Note 2: Hyperion Aviation assumes no liability whatsoever in case of confiscation of any hunting/sporting weapon(s), or other firearms, and/or ammunition by Airport Authorities.

2.10.9 ARMED LEO ON-BOARD

In some countries Police Protection Officers (PPO - LEO acting as Bodyguard) hold an exemption from local national laws that enables them to carry their weapons on their person when accompanying specific named VIPs. A condition on the exemption requires the police to provide the operator with a copy of the relevant exemption in advance of the flight to demonstrate that the exemption applies to them and the person they are accompanying.

Specific local laws approve the carriage of weapons by operators in accordance with the exemption issued to Police Protection Officers. Should an operator be asked to carry protection officers bearing weapons on their person and the Police do not/cannot provide a copy of the relevant exemptions (preferably when booking the flight), then their weapons must be stowed in a location that is inaccessible during flight.

All armed police officers that carry out close protection duties may carry their weapon(s) in the cabin of Hyperion Aviation aircraft provided the following conditions are met:

- They are accompanying their 'principal' (the person they are protecting) at the time of flight.
- They are in possession of a valid exemption form.
- Hyperion Aviation/or has advance notice of the flight and travel date(s).

When the police officer is not accompanying any of the persons referred to in the exemption, the unloaded arms and ammunition shall be stowed in a location, which is inaccessible to passengers on the aircraft.

2.10.10 SPILLAGE - LEAKAGE

In the event of spillage, the following emergency measures are advised:

- Your first consideration is the immediate safety of all people present.
- Next call emergency services.
- Respond to contain the spillage only if it is safe to do so.
- If help is available, allocate responsibilities to others to create a competent emergency team to deal with the spillage.
- Demarcate the area.

Take the following first response safety measures whenever a spillage occurs:

- Activate the emergency shut-off valve where installed.
- Alert the person in charge of fuelling and/or the Pilot in Command of the spillage.
- Contact the local fire service if not already done.
- Ensure passengers are protected and that no vehicles or sources of ignition are in the area.
- Verify with authorities/supervisor whether to stop all activity around the aircraft.
- As far as possible, restrict all activities inside and outside the spill area to reduce the risk of ignition.
- Secure the area 15 meters from the contaminated area.

Note: Clean up procedures should be available in local airport procedures manuals.

1. Raise the alarm.	Do not endanger yourself.
2. Evacuate people if necessary.	Demarcate the area.
3. Call emergency services (if required).	Do not leave the area unattended.
4. Damaged or leaking packages shall not be loaded in an aircraft	If DG is radioactive, additional precautions may be necessary.
5. If already loaded the package shall be removed, if safe to do so.	
6. Check surrounding area for seepage or contamination. Any piece of cargo or baggage if contaminated shall be removed.	Advise management of the incident.

3 CARGO AND MAIL HANDLING PROCEDURES

3.1 CARGO & MAIL HANDLING PROCEDURES

3.1.1 DEFINITION AIR CARGO

Everything that can and may be transported, with exemption of passengers, hand and check-in baggage is classified as air cargo.

3.1.2 TRAINING

All handling agent personnel must be properly trained and suitably experienced for their positions. They must meet the appropriate agreed standard required by IATA & Hyperion Aviation.

All those responsible for the safe loading and unloading of cargo must be trained in the use of aircraft cargo handling equipment and material handling equipment when these services are offered by the handling agent organization.

English is the spoken and written language in a multinational environment. All relevant cargo paperwork and instructions must be prepared in English.

All training must be in accordance with IATA AHM1110 and training records will be audited against it.

3.1.3 RESPONSIBILITIES

All personnel involved in accepting, preparing, storage, build-up, loading and unloading air cargo shipments are responsible for ensuring correct and proper implementation of rules, regulations and procedures as applicable in their respective part of the air cargo process.

Personnel involved in airport operations are obliged to work safely and report all issues that may negatively affect their own safety and security, that of others, aircraft, passengers and/or other cargo. In order to prevent injury and damage and improve the overall quality of the air cargo process, personnel involved in the process are encouraged to come up with proposals for improvement and establishment of best practices in a multinational environment.

3.1.4 CARGO – GENERAL

The transport of goods by air is regulated by ICAO, IATA and the Civil Aviation Authority of Malta.

All shipments on-board a Hyperion Aviation aircraft must meet the company safety and security requirements.

The shipper (consigner) or his designated representative is responsible for ensuring that any consignment delivered for air transport is packed, marked and labelled correctly and completely as prescribed in applicable regulations and the required transport documentation associated with the shipment (e.g., air waybill, similar documents, dangerous goods and/or custom declarations, etc.) is provided.

Only shipments that meet the requirements for air transport (regarding packing, marking, labelling, documentation, etc.) are to be declared ready for carriage and shall be admitted to the aircraft.

Shipments must pass an acceptance check in order to be declared airworthy/ready for carriage by a competent ground handling or similar organization providing the required cargo services to the aircraft. If deficiencies are during the acceptance check, the shipment shall be classified as not acceptable (not ready for carriage) until the flaws have been removed.

The integrity of the cargo and its documentation must be secured while being processed through the logistical chain so as to prevent unauthorized manipulation. All organizational elements involved in the handling of air cargo are responsible for maintaining its integrity.

Hyperion Aviation does not operate air cargo transportation operations. Refer to operation specification.

Government laws and regulations applicable to air cargo transportation and mail shipments must be observed by all parties involved and shipments must be supported by the appropriate paperwork.

Activities conducted in relation to cargo and mail handling by contracted ground handling are generically referred to as cargo handling. This includes the processing of passenger baggage, on/off-loading of aircraft, preparation of cargo for air transport or receiving airfreight and baggage at an Airport Terminal (cargo area).

3.1.5 CARGO SAFETY AND SECURITY

The cargo terminal area at an airport is a security protected location that can generically be divided into a land-side and air-side area.

They are established and maintained to prevent air cargo, mail and baggage that can endanger the airport and aircraft or put infrastructure, personnel, crews, passengers or (other) cargo at risk being handled and loaded on board. An important aspect for air cargo security, flight safety and quality control is the establishment of a controlled environment / process that allows compliance monitoring and the management of all steps related to the preparation of air cargo. For this purpose, the principles of process flow indicators (e.g., process guidance document, transfer guidance document, shipment quarantined, shipment outbound, shipment inbound, other forms and various checklists) are highly recommended or in most cases mandatory to be used. The use of these documents assists various activities conducted under responsibility of the airport, where the process becomes verifiable and transparent.

Cargo that is to be transported by air and the related documentation must be protected against unauthorized manipulation while being processed in the supply chain. If not delivered in a secure condition, handling agent personnel must clarify the condition of the cargo (secure/unsecure) and render it secure for air transport. Shipment consignment that is accepted by the dedicated handling agent representatives as being compliant to the requirements for carriage must be kept in a secure and accepted condition.

3.1.6 CONDITIONS FOR DELIVERY

For safety and security reasons, consignments and related documentation are only to be accepted from known shippers and consigners, surface transportation has been conducted by a known party and no deviations from agreed security procedures are made. Shipments shall not be accepted if no arrangements have been made prior to delivery or deliveries cannot be accounted for.

3.1.7 SECURITY CHECK

Airports may insist on a validated air cargo security declaration accompanying a consignment when it is delivered to an airport (Declaration Air Cargo Security).

Ground handling agencies and other organizations are considered as ‘known shippers’ when air freight has to be transferred between airports by road. This does not exempt the cargo from undergoing acceptance checks. The mandatory safety and security measures must always to be taken.

Shipments may only be accepted as air cargo when they have passed a validated security and acceptance check.

3.1.8 SECURITY MEASURES

Air cargo and related air transport documentation must be protected and stored in such a way that unauthorized personnel cannot access and manipulate these items. Secure and unsecure shipments in the airport must be physically segregated and are not allowed to be mixed. Handling agent representatives are responsible for the implementation of security measures within the airport area and must execute relevant procedures accordingly.

Upon arrival of shipments at an airport, a check must be conducted prior to acceptance to determine whether a delivery meets the agreed security standard or whether an additional security check/screening is required based on the applicable (inter) national and/or local procedures.

3.1.9 HIGH RISK CARGO

High risk cargo or mail is identified as:

a) All cargo and mail originating in or being loaded on to an aircraft from high risk countries identified by the EU: or
b) All cargo and mail which appears to have been subject to significant tampering to a degree which could have allowed to the introduction of prohibited article, or which are otherwise suspect.

Additional security controls shall be applied conforming with Regulation No EC 2015/1998 6.7 before high risk cargo may be carried to an airport falling with the scope of Regulation No (EC) 300/2008.

The security controls employed shall be of a standard sufficient to reasonably ensure that no prohibited articles are concealed in the consignment. Where the screener cannot be reasonably sure that no prohibited articles are contained in the consignment, the consignment shall be rejected or be rescreened to his satisfaction.

3.2 CARGO ACCEPTANCE

The primary objective for cargo acceptance handling is to ensure that consignments are ready for carriage in compliance with customer airline and IATA regulations, as well as with export rules and regulations of the originating point and import rules and regulations of the destination country, if applicable.

3.2.1 CARGO ACCEPTANCE–GENERAL

In general, all items to be transported using commercial aircraft need to pass through an acceptance process. There are certain procedures that have to be done no matter what the cargo is and other procedures that are only for certain types or categories of cargo.

- Only accept cargo types for which the facilities are suited, the staff are trained and which the airline carries.
- When doing or supervising the function of accepting cargo for air transport, always perform the following general steps:
  - Go through the Air Waybill (AWB) and where applicable other relevant documents, checking for accuracy and completeness. Do not record the AWB and accept the cargo until all missing and/or incorrect information has been provided and corrected.
  - Inspect the cargo for signs of tampering and damage before recording the AWB and accepting the cargo.
  - Check that the shipment description and number of items stated on the documentation matches the cargo presented at the time of acceptance.
  - If you find undeclared and/or mis-declared Dangerous Goods in cargo, do not accept the cargo. If you are not authorized to do so, call the Supervisor to handle the situation and complete the incident report.
  - Inspect the packaging of the cargo to make sure it is of a standard suited to the contents and able to protect the cargo from any accidental damage that could be caused during the normal handling and transporting of the cargo.
  - Make sure the packaging is constructed to:
    - avoid any risk to any people involved in handling the cargo;
    - allow special labels to remain visible;
    - avoid the use of plant/organic cushioning/absorbing materials such as straw and untreated wood products as they may be prohibited by quarantine restrictions.
  - Give reasons for refusing to accept the cargo to the person delivering the cargo.
  - Make sure that all documentation is sent on, captured correctly in a computer system, or handed over to the correct people, so that all the information is available to be able to load the flight correctly.

3.2.2 CARGO ACCEPTANCE–DANGEROUS GOODS (DG)

Hyperion Aviation isn't allow to carry Dangerous Good .

Dangerous Goods must be accepted in accordance with the current edition of the IATA Dangerous Goods Regulations Manual and ICAO Technical Instructions.

All suppliers and operators conducting cargo operations for MLT shall ensure a copy of the current edition of the Dangerous Goods Regulations (DGR) or the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (Technical Instructions), including addenda as appropriate, is available at each location where cargo operations are conducted and dangerous goods are accepted.

This shall be observed during any audit process.

Dangerous goods as specified in the IATA dangerous goods regulations (DGR) must be accompanied by a 'dangerous goods declaration' (DGD). The shipper is responsible for ensuring that the document is complete and available. By signing the document, the sender states that the dangerous goods are packed for shipping according to the ICAO technical instructions.

The document must be presented in two copies;

- one for the transporter of the declared commodity;
- one for the final destination (to accompany the goods)

The DGD is only allowed to be completed by certified personnel and must be completed in compliance with the regulations. If the sender is not able or authorized to pack the goods according to the regulations or to complete the DGD, it is possible to use services of certified companies or institutions to prepare the cargo and/or its documentation. An example and fill-in instructions for a DGD can be found in the current version of the IATA DGR.

Declaration of absence of dangerous goods

If a cargo shipment contains no dangerous goods subject to the ICAO and/or IATA DGR, some airports require the shipment to be accompanied by a document that states this and is properly signed by the sender

3.2.3 CARGO ACCEPTANCE–LIVE ANIMALS (AVI)

Live Animals must be accepted in accordance with the current edition of the Live Animals Regulations Manual. (see IATA AHM332)

3.2.4 CARGO ACCEPTANCE–PERISHABLES (PER)

Perishable cargo must be accepted in accordance with the current edition of the Perishable Cargo Regulations (see IATA AHM330)

3.2.5 CARGO ACCEPTANCE–OTHER SPECIAL CARGO

Depending on the nature of the cargo, perform the applicable steps following:

3.2.5.1 Human Remains (see IATA AHM333)

- Human Remains: Coffins (HUM):
    - Only accept Human Remains if accepted by the operating airline for transport.
    - Make sure that a Human Remains Acceptance Checklist has been used (if required by the operating airline).
    - Do not accept any Human Remains that are consolidated with any cargo other than other Human Remains.

- Human Remains: Cremated:
    - Accept urns or other suitable containers as cargo with no special restrictions.
    - Make sure that the urn or other container is packed in a neutral outer pack that will protect the urn from breakage and/spillage.

3.2.5.2 Valuable Cargo (see IATA AHM331)

Valuables consignments offered for transport may consist of high value material (gold, diamonds), money, lifesaving medicines, works of art, etc. Such consignments must be handled with special care, discretion and required security precautions. (Local) circumstances or other considerations that require additional safety and security measures to be taken for handling such consignments in- and around the air terminal area should be taken into account.

- Valuable cargo must only be accepted when specific procedures are applied, when the security measures taken are deemed sufficient and when Hyperion Aviation accepts this commodity for air transport.
- Special rules and regulations concerning registration, carriage, export and import apply to the transport of medicines that are registered as opium act articles and must be obeyed.

The shipper is required to prepare and submit all the required documentation.

Arrangements for handling valuables in a certain timeframe, taking any special demands into account (e.g., security personnel, vehicles, customs, etc.) must be made in advance if this is demanded by any of the stakeholders.

- Valuable cargo should not be consolidated with other cargo to allow rapid handling/transfer of the shipment elsewhere.
- A valuable consignment must be packed and secured in such a way that it cannot be tampered with and/or removed.
- Valuable cargo must not be left unattended unless it is stored in a secure storage facility that allows only controlled access by authorized personnel.
- The Pilot-in-Command (PIC) must be informed by means of a NOTOC.

Valuable (VAL) Cargo:

- Only accept valuable cargo in accordance with operating airline-specific procedures if the operating airline accepts valuable cargo for transport.
- Make sure that advance arrangements, such as specialized security staff and vehicles, have been made for handling the valuable cargo.
- Make sure that valuable cargo is not consolidated with other cargo.
- Make sure that valuable cargo has been packed and secured so that it cannot be tampered with or removed.
- Do not communicate any arrangements concerning valuable cargo to anyone except other staff you know are involved with the shipment.
- Valuable cargo must not be left unattended.

3.2.5.3 Outsized and Heavy Cargo

Outsized and Heavy (HEA) Cargo:

- Only accept outsized and heavy cargo if accepted by the operating airline for transport.
- Check if advance arrangements have been made with the operating airline.
- Make sure operating airline-specific procedures for acceptance and handling of OUTSIZED AND HEAVY CARGO are met.

3.2.5.4 Fragile Cargo

Fragile cargo is often very delicate and can easily be damaged. The shipper is responsible
for packaging it properly so that it is able to withstand normal handling activities. Sufficient cushioning materials, combined with a strong outer package/container and adequate handling labels indicating the risks should be used.

- Fragile cargo is only to be accepted when undamaged upon arrival.
- Shipments are only to be handled when accepted for transport by Hyperion Aviation.
- A shipment must not be accepted if the instructions given with the cargo cannot be complied with (e.g., unreasonable and/or impractical demands or conditions).
- All special instructions and handling labels must be clearly visible and attached in a clear manner to the packaging.

The Pilot-in-Command (PIC) must be informed by means of a NOTOC.

Fragile Cargo:

- Only accept fragile cargo if accepted by the operating airline for transport.
- Do not accept fragile cargo if the instructions given with the cargo ask for unreasonable/impractical demands or conditions.
- Make sure all special instructions are repeated clearly on the packaging.

3.2.6 MAIL

Mail:

- Accept airmail using the same acceptance processes as detailed previously using a CN38 form in place of an AWB.
- Make sure the mail complies with the requirements of the Postal Services as well as those of the operating airline.

3.2.7 COMPANY MAIL (COMAIL) & COMPANY MATERIAL (COMAT)

All company materials and/or company mail belonging to Hyperion Aviation may be accepted for air transport, but must be subject to the same acceptance processes as detailed for other cargo commodities.

3.2.8 PRESSURIZED CARGO

During air transportation, all persons and cargo are subject to pressure changes. Some goods and also canisters used for air transportation can be damaged by these pressure changes.

When this type of cargo is delivered for air transportation, the maximum permissible pressure difference must be noted and affixed to the (special) packaging.

Requirements concerning the packaging may differ for the various types of aircraft in use.

Timely disclosure of the relevant transport information and other data on special shipment requirements is mandatory for planning.

A shipment-specific acceptance check based on the properties of the cargo delivered is to be conducted prior to release to an aircraft (if declared ready for carriage).

3.2.9 WET CARGO

Wet cargo is a shipment containing liquids or shipments which by their nature may produce liquids (such as live animals) that are not subject to the dangerous goods regulations. The following shipments are classified as wet cargo:

- shipments of liquids in watertight containers;
- shipments of wet materials not packed in watertight containers (e.g., fish packed in
- wet ice, fresh meat and wet hides);
- shipments of goods which may produce liquids.
  When these commodities are to be transported, approved waterproofing, absorbent and/or insulating material must be used on the aircraft pallet or on the aircraft container floor as required by the type of cargo and/or operator concerned. Containers must be stored in an upright position to prevent spilling.

Watertight containers shall meet the specifications of the ICAO. Other containers must be of high-quality waterproof material. Containers with cargo that may produce liquids shall be leak proof or contain sufficient absorbent material. Packaging shall allow the aircraft to handle the maximum angles of roll and bank it may encounter during flight without any liquid contents being released.

The Captain & handling agent must be informed of any spillage or leakage so that the appropriate follow-onmeasures can be taken.

3.2.10 DRY-ICE

Dry-ice is often used as a cooling product when refrigerated or frozen commodities must be transported. Dry-ice is frozen carbon dioxide (CO2) that turns into a gaseous state almost immediately when heated up.

Precautions must be taken when handling dry-ice because the concentrated gas expels oxygen from air and because of the extreme cold of the product.

Working with frozen dry-ice may cause injuries. The use of protective clothing and equipment is mandatory. Bulk compartments holding shipments where dry-ice is used as a cooling product may hold a high gas concentration that can endanger health and safety.

It is mandatory to wait 15 minutes after a compartment has been opened before unloading is started. This allows the high concentration of gas to escape.

The amount of dry-ice required as a cooling product must be calculated and depends on flying time, ambient temperature, transfer, etc.

The maximum permissible quantity on board an aircraft is often restricted (depending on the type of aircraft concerned).

Based on the properties of dry-ice, segregation regulations concerning sensitive goods (such as live animals) must be obeyed.

3.2.11 WHEEL CHAIRS/MOBILITY AID DEVICES WITH 'SPILLABLE' BATTERIES

Wheelchairs or other battery powered mobility aids are to be handled with care and special attention is required to in order to ship them in compliance with the current edition of the
IATA DGR.

When these assets are required to cross the apron moving passengers to the aircraft, delivery at aircraft (DAA) procedures may be applied where the mobility aid is prepared last minute to be loaded and stored on board of the aircraft.

The rules on packing, handling and labelling are as set out in the current edition of the IATA DGR and must be obeyed.

When applicable, a NOTOC must be issued and the relevant procedures must be executed.

3.2.12 LITHIUM METAL BATTERIES

Shipments of lithium metal batteries are allowed on cargo aircraft only (CAO) flights when compliant to the current IATA/ICAO TI and no exemption has been granted by the national competent authorities involved. In the event of cross loading and/or operator changes, exemptions may have to be granted by more national competent authorities.

3.2.13 LABELLING AND IDENTIFICATION

As part of the cargo acceptance process, it is important to make sure that all the labelling and identification of the load is correct and in place.

- Make sure cargo labels are completed and attached to each piece of every shipment, including single piece shipments.
- As a minimum requirement, cargo labels must include the following information:
    - Air Waybill number;
    - destination airport code;
    - total number of pieces in the consignment.

3.2.14 CROSS-CHECK OF EAWB DATA

3.2.14.1 Verify that the eAWB is correctly completed in accordance with RP1670 and matches the physical cargo.

- Air Waybill Number matches
- Full shipper and consignee name and address
- Nature and quantity of goods:
    - Description does not indicate the presence of dangerous goods or is accompanied by the term "Not Restricted".
    - For other dangerous goods descriptions, e.g. lithium batteries, see 3.5.
- Additional handling information and handling instructions can be accommodated and match product/service.
- Other charge codes, e.g. AW or SC, input in accordance with TACT Rules.

3.2.14.2 If the FWB data differs from the cargo tendered, a new FWB is required, or modify the FWB if instructed to do so in writing by the operator and/or freight forwarder.

3.2.14.3 Accept the cargo and confirm the eAWB, e.g. ready for carriage in status message (FSU (RCS)).

3.2.14.4 Provide cargo receipt to the shipper or freight forwarder, replacing the delivery note or warehouse receipt.

3.3 INFORMATION AND DATA TRANSMISSION TO LOAD-CONTROL OR PILOT IN COMMAND

Capturing accurate data about the shipment is vital for the smooth and safe operation of air cargo transport. Without the correct data being communicated in a timely manner to the correct people, the shipment will not progress through the air transport system.

3.3.1 LOAD-CONTROL MUST RECEIVE THE FOLLOWING INFORMATION:

- Special handling and hazardous code (mandatory) and complementary information, if required, for example:
    - AVI/species
    - PER/temperature
    - OHG/length & direction
    - RRY/T.I.
- Bulk load: pieces and weight (where applicable);
- Airport of unload.
- Make sure all documentation required for the load control process, as well as for the filing and recording, is forwarded to the correct office(s)/staff for their action.
- Cargo NOTOC as per AHM 381 to be communicated.

It is of vital importance that all this information is clearly legible for all parties concerned.

3.4 DAMAGE AND IRREGULARITIES (SEE IATA AHM320)

Cargo can be damaged, tampered, pilfered or missing before, during and after transportation. It is important to deal with this problem as soon as it is noticed so that it can be resolved and any possible risks minimized.
If at any stage of the cargo handling process, cargo is damaged, missing or pilferage is noted, contact the Manager/Supervisor immediately to inspect the cargo, its packaging and/or the ULD.
If it is confirmed that cargo is damaged, missing or pilferage is noted:

- Start all appropriate action, including any emergency action necessary in the case of damaged Dangerous Goods.
- Assess and document damage.
- As applicable, either allow the shipment to proceed for flight or remove from aircraft/flight.
- Inform and request feedback from all parties concerned.
- Monitor and record all actions and communications until resolution is achieved.
- In all cases, a Cargo Irregularity Report must be completed.

3.5 ACCURACY OF CARGO SCALES

The accuracy of all cargo scales (weighbridges) used for weight determination of load shall be checked in accordance with AHM 534 and AHM 941.

3.6 CARGO FORWARDING STORAGE AND PREPARATION FOR FLIGHT

After cargo has been accepted for transport, it can follow one of several paths before being loaded onto an aircraft:

- Directly through the cargo facility without being stored.
- Stored for a period of time, waiting for a flight.
- Moved from storage directly to flight.

3.6.1 STORAGE

Move the cargo by appropriate means to the storage area.
Put the cargo in the storage area as per local procedures, ensuring that:

- dangerous goods are stored as per the current Dangerous Goods Regulations;
- live animals are placed in a quiet, well-ventilated designated area, protected from adverse weather conditions (refer to LAR);
- temperature sensitive items are stored at the correct temperature (refer to PCR);
- human remains in coffins are not stored next to food/live animals;
- flowers are separate from fruits and vegetables;
- valuable/vulnerable cargo is stored in a secured place and in accordance with operating airline requirements;
- courier/express cargo shall be stored in an easily accessible location;
- Special attention must be paid to Cooltainers.

Make sure that once cargo has been put in the storage area, its location is recorded and that all the information, as well as the location of the cargo, is correctly communicated for ease of retrieving the cargo when required.

4 AIRCRAFT HANDLING PROCEDURES

4.1 INTRODUCTION

Hyperion Aviation recognise that handling processes need to be adapted to suit different infrastructures, operations, and equipment. We also recognise that handling companies are regularly faced with a wide range of different procedures from different airlines, often for the same aircraft type. This in itself can have safety implications due to the confusion caused.

As far as is practical, therefore, Hyperion Aviation have attempted to define the minimum standards which should be applied to our operation, but allow handling agents the flexibility to adopt their own handling procedures in order to achieve these standards as a minimum.

Hyperion Aviation expects the FBO/GSP to adhere to most standards and procedures laid down in industry best practice(s) (i.e.: IATA AHM, iGOM, ISAGO and EBAA/NBAA IS-BAH and IS-BAO) as well as local airport authority regulations along with their own standard operating procedures.

Hyperion Aviation believe that one of the most critical elements of a safe handling operation is preparation, particularly when managing aircraft turnarounds in a relatively short timescale. We routinely see good, quick, efficient, and above all SAFE turnarounds time after time, but the only way we achieve such efficient turnarounds is by preparation and communication. FBO/GSP Handling Staff should be ready on stand before arrival, with all the required equipment, and all staff needs to be fully aware of their roles and responsibilities, and how they interact with others around them during the turnaround process.

Also critical to delivery of a safe ramp operation is effective supervision, to ensure that all FBO/GSP Handling Staff are fully aware of the required standards, and any deviation from such standards and procedures is identified and corrected. Handling agents are contractually obliged to operate an effective supervision regime within the ramp environment.

4.2 GENERAL REQUIREMENTS

Ramp safety rules and procedures promote safe ground handling. Therefore, the minimum safety rules and procedures defined in this section shall always be applied and understood by all personnel working on the ramp. All handling personnel must be appropriately trained and have succeeded training as specified in "GOM 0.16".

Aircraft damage can endanger passengers, employees and aircraft. Disruptions may also negatively impact safe airline operations.

Even a slight scratch or dent on an aircraft may result in a serious accident or incident.

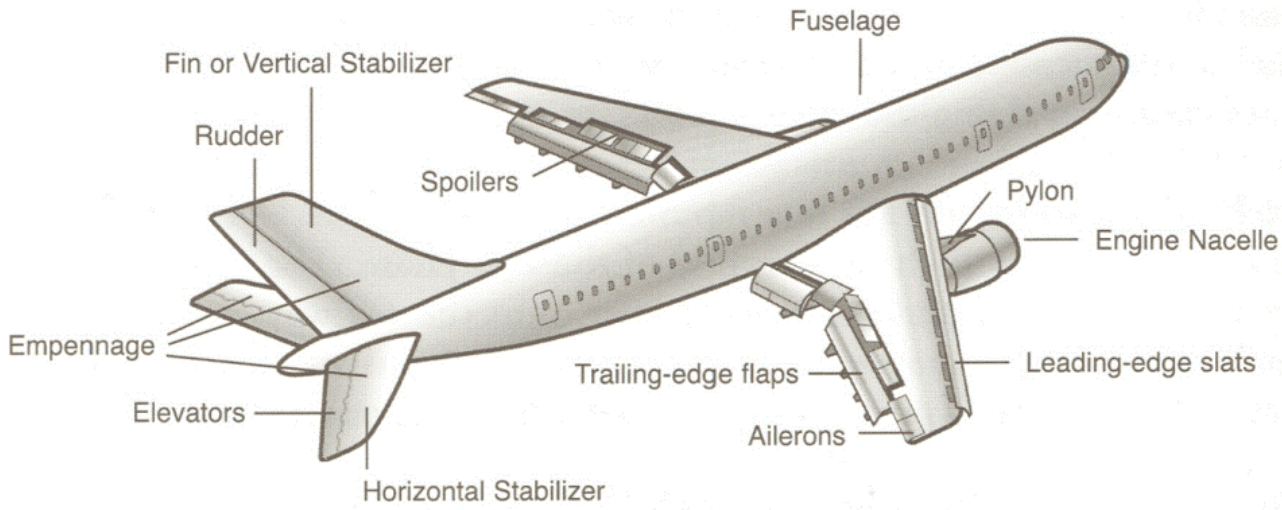
- If you see or cause any aircraft damage, you MUST report it. Refer to "GOM 6.5" regarding reporting of aircraft damage.

Note: Always challenge everybody in and around the aircraft to present himself, ask the purpose of his visit and request the person to show his airport access badge. Do not hesitate to challenge anyone who is clearly not involved in the servicing of the flight and/or not wearing a visible airport access badge.

4.2.1 AIRCRAFT – PARTS & DESCRIPTION

It is important that FBO/GSP Handling Staff are familiar with (business aviation) aircraft definitions and parts. FBO/GSP Handling Staff will spend a considerable amount of time around aircraft; they will interact with crews, mechanics, and other service providers, and are crucial in coordinating handling activities. Therefore, a solid knowledge of aircraft characteristics is essential, in order to avoid misunderstandings, which in turn could lead to hazardous situations.

Airplanes come in many different shapes and sizes depending on the mission of the aircraft. The airplane shown is a turbine-powered business aviation jet, which has been chosen as a representative aircraft within Hyperion Aviation fleets.



For any airplane to fly, one must lift the weight of the airplane itself, the fuel, the passengers, and the cargo. The wings generate most of the lift to hold the plane in the air. To generate lift, the airplane must be pushed through the air. The air resists the motion in the form of aerodynamic drag. Modern business aviation aircraft also use winglets on the tips of the wings to reduce drag. The turbine engines, which are either located beneath the wings, or at the rear of the fuselage, provide the thrust to overcome drag and push the airplane forward through the air. Smaller, low-speed airplanes use propellers for the propulsion system instead of turbine engines.

To control and manoeuvre the aircraft, smaller wings are located at the tail of the plane. The tail usually has a fixed horizontal piece, called the horizontal stabilizer, and a fixed vertical piece, called the vertical stabilizer. The stabilizers' job is to provide stability for the aircraft, to keep it flying straight. The vertical stabilizer keeps the nose of the plane from swinging from side to side, which is called yaw. The horizontal stabilizer prevents an up-and-down motion of the nose, which is called pitch.

At the rear of the wings and stabilizers are small moving sections that are attached to the fixed sections by hinges. Changing the rear portion of a wing will change the amount of force that the wing produces. The ability to change forces gives us a means of controlling and manoeuvring the airplane. The hinged part of the vertical stabilizer is called the rudder; it is used to deflect the tail to the left and right as viewed from the front of the fuselage. The hinged part of the horizontal stabilizer is called the elevator; it is used to deflect the tail up and down. The outboard-hinged part of the wing is called the aileron; it is used to roll the wings from side to side. Most business aviation aircraft can also be rolled from side to side by using the spoilers. Spoilers are small plates that are used to disrupt the flow over the wing and to change the amount of force by decreasing the lift when the spoiler is deployed.

The wings have additional hinged, rear sections near the body that are called flaps. Flaps are deployed downward on take-off and landing to increase the amount of force produced by the wing. On some aircraft, the front part of the wing will also deflect. Slats are used at take-off and landing to produce additional force. The spoilers are also used during landing to slow the plane down and to counteract the flaps when the aircraft is on the ground.

The fuselage or body of the aircraft holds all the pieces together. The pilots sit in the cockpit at the front of the fuselage. Passengers and baggage are carried in the rear of the fuselage (or in the nose on some smaller aircraft, and in dedicated cargo/baggage holds in large airliner-type business aircraft). Some aircraft carry fuel in the fuselage; others carry the fuel in the wings.

4.2.2 PERSONAL PROTECTIVE EQUIPMENT

In accordance with local applicable standards (HSE/OHS Airport/Ramp Environment) published by most airports world-wide, following Personal Protective Equipment (PPE) must be worn on the ramp during all operations.

It is now mandatory at nearly all airports worldwide for FBO/GSP Handling Staff to wear "Hi-Viz" clothing whilst working in aircraft movement areas. Some airports have interpreted this as anytime airside. All staff including FBO/GSP Handling, Crews and Engineers must comply with this requirement. Severe penalties can/will be imposed by Airport Authorities including withdrawal of Airside Passes for infringements, notwithstanding prosecution.

All Staff must be aware that both FBO/GSP Handling Staff and Crews have been seriously injured or killed as a result of being hit by vehicles or ramp equipment because they were just not seen by the drivers.

All Staff must be properly equipped before going on the Ramp - it's the law!

High Visibility vest (Hi-Viz Vest) is mandatory for all employees on any area of the ramp (movement area).	
Hearing protection is mandatory for all employees on any area of the ramp (movement area). At take-off, an aircraft, 100m away, generates easily noise at 130dB.	

Where required, it is strongly advised that safety footwear is worn, to avoid foot injuries when loading/unloading aircraft, or performing any other ramp related activity that could put feet at risk. When De-Icing, eye protection/protective glasses must be worn.	
Where required, it is strongly advised that safety gloves are worn, to avoid hand injuries when loading/unloading aircraft, or performing any other ramp related activity that could put hands at risk.	
It speaks for itself that all staff having access to the ramp (RSA), must wear their airport identification/authorisation badge clearly visible. It should not be covered by clothing or PPE.	

4.2.3 RAMP SAFETY – HANDLING STAFF

- FBO/GSP Handling Staff are advised that jewellery such as rings, identity bracelets and earrings should not be worn as they are prone to catch on hook, nails, buckles, locks or straps and have been known to severely damage fingers, or even sever them completely. Earrings (other than sleeper studs) can also catch on nets in holds, etc. and cause tearing of the ear.
- All baggage or cargo should be slid into small places, it should not be lifted into place as this may cause fingers and hands to be jammed between objects.
- Handling cargo by the metal strapping, which is frequently used to bind heavy or awkward shipments, should be avoided, as severe lacerations can be caused.
- All baggage or cargo should be set down easily (not dropped) to avoid injuries to toes and feet as well as avoiding damage to aircraft flooring and shipments.
- Appropriate gloves must be worn.
- Extreme caution should be exercised when entering aircraft holds and main decks from carts, conveyors and tractors, because they could move unexpectedly. Entering and leaving aircraft cabins should be by properly positioned and stabilised steps.
- When handling live animals, fingers and hands should be kept clear of the interior of containers to avoid being bitten.
- When a poorly packed shipment is observed, proceed with caution.
- All contents should be prevented from falling out and causing possible injury.
- Safety shoes and hearing protection must be worn at all times on the ramp.
- When operating at heights (de-icing rig baskets, etc.) the FBO/GSP operator must wear an approved safety harness.
- When spraying de-icing fluid in windy conditions suitable eye protection should be worn.
- Baggage should be stowed evenly, in baggage carts or flat backs with heavy pieces to the bottom and the centre to ensure stability. All gates and curtains should be secured to prevent loss of load.

- The side curtains of baggage/cargo trailers shall be closed and secured before being towed on service roads even when empty as serious injury could be caused to drivers of other vehicles should these curtains or the load blow about.
- When hitching carts and tractors employees should ensure that hitches are securely latched. Also, when driving tractors drivers must first ensure it is not hitched up to any equipment it is not their intention to tow.

4.2.3.1 RAMP SAFETY - PERSONAL ELECTRONIC DEVICES USAGE

With the proliferation of small personal electronic devices (PED) and mainly personal communication equipment like cell phones and smart watches, we are seeing increased problems associated with the use of these devices.

The aviation industry has already seen accidents, including loss of life, due to cellular equipment related distractions. According to the US "National Safety Council", staff are 23 times more likely to have a problem while texting and driving resulting in over 1.6 million accidents annually. Clearly, the safety and security of employees, customers, and airport users is threatened by the inappropriate use of these devices. The issues and concerns may seem obvious, but the variables of how to address them and the application of policies and procedures to deal with them can be more complex.

Recognizing the fact that there are certain supervisory situations or logistical reasons for allowing limited, or company-issued, cell phone use around the airport, there are several things that should be considered to reduce the risk to our operation. Overall, good communication can provide valued benefits to all types of airport operations or service functions on the field, both from a customer service and efficiency perspective. However, some “best practices” must be considered for airport facilities and operations to maintain a safe working environment.

In general:

- most use of personal cell phones during work hours should be prohibited. In particular, cellular devices should not be allowed on a person who is entering airport work areas such as aircraft ramps and parking areas, fuel storage areas, cargo areas, warehouses, maintenance hangars, and other hazardous materials areas. Cell phones are not only a distraction, they can be dropped or fall into fuel tanks, aircraft component areas, engines, or other areas that could cause damage, FOD, or explosions issues.
- all other types of PED, incl. personal communication/entertainment equipment such as iPods/iPads (except EFB), CD/DVD players, electronic games, and other similar equipment should never be allowed in the industrial workplace.
- cell phone use should never be allowed while operating any GSE equipment or preforming any airfield related job task.
- all approved or company cell phone use must be kept at least 15 meters (50ft) from any vehicle or aircraft refuelling operation, parked refuelling vehicles, fuel storage areas, aviator’s breathing oxygen storage, and any other hazardous material (DGR) storage areas.
- personnel in customer service areas within FBO lounges, or those dealing with the public should also not be allowed to use personal cell phones at their workstation.
- placing a call when airside should be severely restricted to emergency situations only. Incoming calls should be allowed to go to voice message mode when operating around aircraft or anywhere on the airside ramp. Calls can be returned once ground activities are completed.
- if operating a (GSE) vehicle on active runways or taxiways, cell phone use should be completely prohibited and only radio communication with the control tower or local ATC/NAA approved source should be allowed.
- company cell phone use should never be allowed in precarious positions such as climbing ladders, on walkways, work stands, jet bridges or other areas that require full attention. Never allow cell phone or two-way radio usage during aircraft marshalling operations.
- 24-hour operations that require personnel to answer incoming calls at night should also have restrictions on their use. Incoming calls should be ignored and voice mail utilized when performing any ramp service functions, particularly aircraft towing, refuelling and maintenance operations.
- if a call must be returned, the user must step away from the work at hand and safely complete the call before returning to any job-related function. Particular care should be taken since the potential for distraction from the work at hand can be disastrous when working on or near aircraft.

- if the use of a cellular device is allowed in some work area, restrictions should also be placed on taking photos or recording images. The transmission of photos or posting of images on social media, particularly anything related to accidents, proprietary company issues, and customer aircraft should be prohibited. (see also "GOM 0.5.2")

There may be many other airport operations or service situations not covered by these basic best practices that may be unique to your local airport/FBO/terminal situation. Hyperion Aviation strongly suggests that you review your local airport or company operating procedures from top to bottom to ensure that each person's work environment is safe regarding PED and (cell)phone procedures and policies.

In today's world of "right now" communications, the expectation has become that anyone contacted have to immediately respond to everyone that calls/texts them. Moreover, there continues to be a mistaken expectation that a person can continue to maintain full focus on their job while talking or texting while handling other tasks. However, when FBO/GSP handling agents are working in and around aircraft and related ground equipment, there must be only one task at hand, and that task must have every individual's full and undivided attention.

4.2.4 AIRCRAFT TURNAROUND SCHEDULE – GENERIC

Note: reference: IATA AHM460

For all Hyperion Aviation aircraft turnarounds the following basic requirements shall be followed by FBO/GSP Handling Staff.

- Meet aircraft and crew upon aircraft arrival;
- GPU where required available for plug in on arrival as per crew instructions;
- Escort of passengers and baggage to customs/immigration and thereafter transport/terminal;
- Requested ramp services (fuel, toilet, water) at aircraft;
- Escort crew member to designated passenger meeting point;
- In event of delayed arrival act as the Hyperion Aviation representative at meeting point;
- Escort departing passengers, crewmembers and baggage to lounge or aircraft.

Hyperion Aviation do not produce a graphical "Precision Time Schedule" for their fleets.

4.2.5 RAMP HANDLING CUSTOMER SERVICES

To enhance our customer service delivery experience, the following should, where possible, be provided by our FBO/GSP:

- Aircraft parking within short walk of FBO/GSP executive terminal/lounge with FBO/GSP passenger service staff escort;
- Customs and immigration formalities completed in advance with passenger details supplied by Hyperion Aviation if required/provided;
- Pre-determined meeting, limo "drop off" point or check in desk for Hyperion Aviation owners, customers and passengers, with customer service staff to escort crew and passengers to CIP/(V)VIP lounge or aircraft;
- Provide contact telephone number for customer/passenger to contact when 15 minutes from airport;
- Uniformed, English speaking staff easily identifiable as the FBO/GSP Agent;
- Secure transfer of all identified baggage to and from aircraft, security screened where required by law;
- Executive Multi-Purpose-Vehicle/Van/Minibus for transportation of passengers to and from aircraft where required. Vehicle to be checked by customer service staff for left baggage after passenger / crew disembarkation.

4.3 RAMP SAFETY IN AIRCRAFT HANDLING

Note: reference: IATA AHM462

Following rules must be adhered to at all times:

DANGER	Ground equipment shall not approach the airplane until all engines have been cut (watch for the red rotating beacon/anti-collision light) and the airplane's parking brakes have been set or the chocks are in position.	
	 Typical rotating beacon/anti-collision light location.	
WARNING	Hyperion Aviation crew will communicate upon aircraft arrival at a station whether FBO/GSP Handling Staff is required and/or allowed to enter the aircraft. Only staff cleared and required to enter the Hyperion Aviation aircraft will be allowed entry in order for them to complete their task(s).	
CAUTION		All personnel and crew present on the ramp must wear high visibility clothing. Do not wear loose clothing, make sure Hi-Viz vests are closed, loose clothing may be caught by moving parts or sucked into air inlets.
CAUTION		All personnel and crew present on the ramp must wear ear protection.
CAUTION	Unauthorized persons may never enter the ramp. When you spot someone with an airport ID badge - challenge and when necessary report!	
DANGER		Smoking on the ramp is not allowed at any time and under any circumstance.
CAUTION	GSE equipment must be parked in specially designated areas only. GSE equipment must be driven only by qualified staff. Driving on the ramp may require a local Airport Authority driving licence! Observe all local driving rules as published by the local Airport Authority.	
CAUTION	Safety precautions during all ground operations actions, e.g. disembarking, boarding, loading, must be taken to guarantee the safety of passengers, staff, aircraft and load.	

		Special attention must be given to prevent foreign object damage (FOD), both damage to aircraft and equipment.
	Regardless of aircraft, which are planned to park overnight, or multiple days, Hyperion Aviation aircraft must be positioned as such to avoid any wing overlap hazards. Never overlap any part of an aircraft with any part /wing of another aircraft!	
	Sufficient distance between ground equipment and the aircraft shall be maintained in order to avoid damage cause by vertical movement of flaps and fuselage during unloading of loading. Utmost care shall be taken in shifting ground equipment in the airplane's vicinity.	
	Fuel hoses and connections shall never be run over by ground equipment.	
	Loading and servicing equipment shall not be positioned or manoeuvred under the wings.	
	In order to prevent injuries by protuberances as aerials, drainage pipes or air turbines, walking under the fuselage must be avoided. Drainage pipes and pitot (heads) are heated during flight and can be extremely hot at arrival. Attention must also be paid to the (extended) flaps, the landing gear doors and service doors for water/toilet service. Keep a safe distance (30cm) from RAM air inlets.	
	With the exception of fuel trucks, mobile equipment shall not be positioned within the venting areas during fuelling of defueling.	
		Equipment – whether parked away from, or positioned at the airplane – must have parking brakes set.
		Equipment approaching, manoeuvring at or leaving the airplane shall not be driven faster than the walking speed.
	Airplane and pedestrians have the right of way. Equipment should never move across the path of taxiing airplanes or of embarking/disembarking passengers.	
	When, in exceptional cases, one engine must be kept running (e.g. when no GPU available) ground personnel shall only approach that side of the airplane where the engine has been cut.	
	Vehicles with engines on or electrical power on may not be left unattended.	
		When aircraft is parked the use of cones is mandatory, placed at both wingtips and at the nose and tail, when the engines are completely shut down.
	The "rotating" and/or "flash" light on GSE (self-propelled) equipment must always be activated while driving on the ramp.	

		When in hangars, at dusk/night, switch on lights. Avoid working in badly lit areas.
	When working in areas with slopes, beware of your surroundings and beware when entering and exiting vehicles or level areas.	
	Aircraft shall be parked (short term and long term) in a well-lit, highly visible area so that the presence of unauthorized personnel can be observed.	

4.3.1 GENERAL RAMP SAFETY

	If you are being rushed, politely ask the other person to “stand-by” whilst you complete your task.
	If you are in any doubt as to what was said, ask for verification, every time.

4.3.1.1 CIRCLE OF SAFETY ZONE

Personnel shall observe a virtual operational safety buffer zone, hereafter called the "Circle of Safety" zone when positioning motorizes vehicles/equipment to an aircraft. The following procedures shall be adhered to at all time:

- conduct a vehicle/equipment pre-operational check including a brake test prior to operating motorised vehicles/equipment,
- all motorised vehicles/equipment must make a minimum of one complete stop prior to entering the operational safety zone at a distance of no less than five metres from the aircraft,
- all equipment shall be driven at walking speed when operating within the operational buffer zone.

Circle of Safety zone (approx. 3m) (virtual operational safety buffer zone)

		Equipment approaching, manoeuvring at or leaving the airplane shall not be driven faster than walking speed.

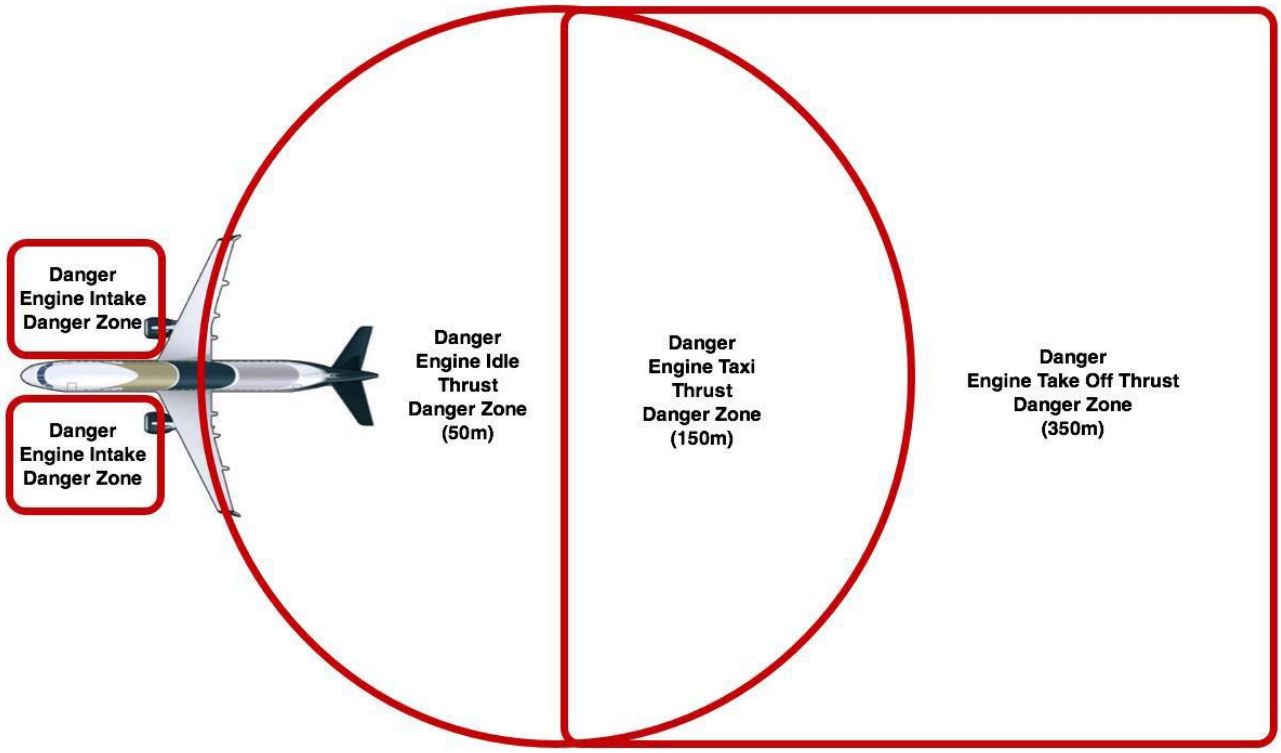
Note: Airport Authorities also publish local rules regarding "Circle of Safety" zones. Distances can vary; therefore, consult your local procedures which in turn should be respected.

4.3.1.2 DANGER AREAS

There is a particular risk of blast damage or injury from an aircraft engine's exhaust or intake. The risk is further increased if for any reason an aircraft stops and then applies the additional thrust required to “break away” and continue the manoeuvre.

Vehicles and personnel must remain clear of aircraft danger areas when aircraft engines are running and/or the anti-collision lights are on. In order to prevent incidents and accidents caused by aircraft engines, you must never position yourself or equipment in the following critical areas before or during aircraft departure and arrival:

- Engine Intake Area (Jet Suction Area).
- Engine Blast Area (Jet Wash Area).



Note: The lengths of these areas vary for each aircraft type based on whether the engines are at Idle or Breakaway thrust. For take-off thrust a valid rule of thumb is to keep a safety distance three times the length of the aircraft fuselage.

Note: Airport Authorities also publish local rules regarding danger areas. Distances can vary; therefore, consult local procedures which in turn should be respected.

4.3.1.3 ENGINE INTAKE AREA

- Make sure the engine intake area is clear:
- at arrival, until the engines have been switched off and are spooling down;
- at departure or just before pushback;
- at all times while engines are running.
- It is forbidden to pass through the blast area while the engines are running.

4.3.1.4 EQUIPMENT RESTRAINT AREA

The Equipment Restraint Area (ERA) is defined as the area of the apron, at many airports bordered by a red line known as the Equipment Restraint Line, in which an aircraft is parked during ground operations. The ERA must be free of obstructions and Foreign Object Debris (FOD) before and during aircraft arrival and departure.

4.3.1.5 FOREIGN OBJECT DEBRIS (FOD)

Foreign Object Debris (FOD) is a general term, which applies to all loose objects which are a danger to the safety and integrity of an aircraft and which, therefore, must not be left in any area where they would constitute a hazard.

Every individual has a responsibility to ensure that the risk of damage to aircraft from FOD is minimized. All FOD must be removed and properly disposed of as soon as it is discovered.

Often the presence of FOD is due to the carelessness of personnel working airside and their lack of understanding of its consequences, or the movement of FOD into airside locations during high winds.

4.3.1.6 FOD EXAMPLES

- Plastic and paper, bags/sheets, rags;
- Metal: nuts and bolts, empty oil and hydraulic fluid cans, tools and equipment;
- Natural objects: rocks, pebbles and wood;
- Other debris: burst ballast bags, luggage handles and luggage wheels;
- Etc…

4.3.1.7 FOD CHECKS

The following checks must be conducted prior to any aircraft movement or servicing operation:

- Check apron and stand areas.
- Check ground equipment staging and parking areas in proximity to area of operation.
- Check ground equipment (including floors of enclosed cabins).
- Check any garbage bin areas for cleanliness and ensure covers are securely fitted.
- Ensure that anything carried in or on a vehicle is secured.
- Conduct a FOD walk of the aircraft-parking stand, removing all FOD found.
- Pick-up and dispose all FOD in designated garbage bins.

Note: see also: "GOM 4.15 and 5.5.2".

4.3.1.8 AIRSIDE MARKINGS & SIGNS

4.3.1.8.1 GENERAL

The information provided in this section, including the graphical representation, is generic.
FBO/GSP Handling Agents must observe local airport markings & signs, rules, and written documentation which should be available for reference at the local FBO/GSP station.

Note 1: not withstanding international conventions, airports may deviate from these generic rules.
Note 2: Always consult your local Airport Authority procedures.

4.3.1.8.2 BASIC INFORMATION

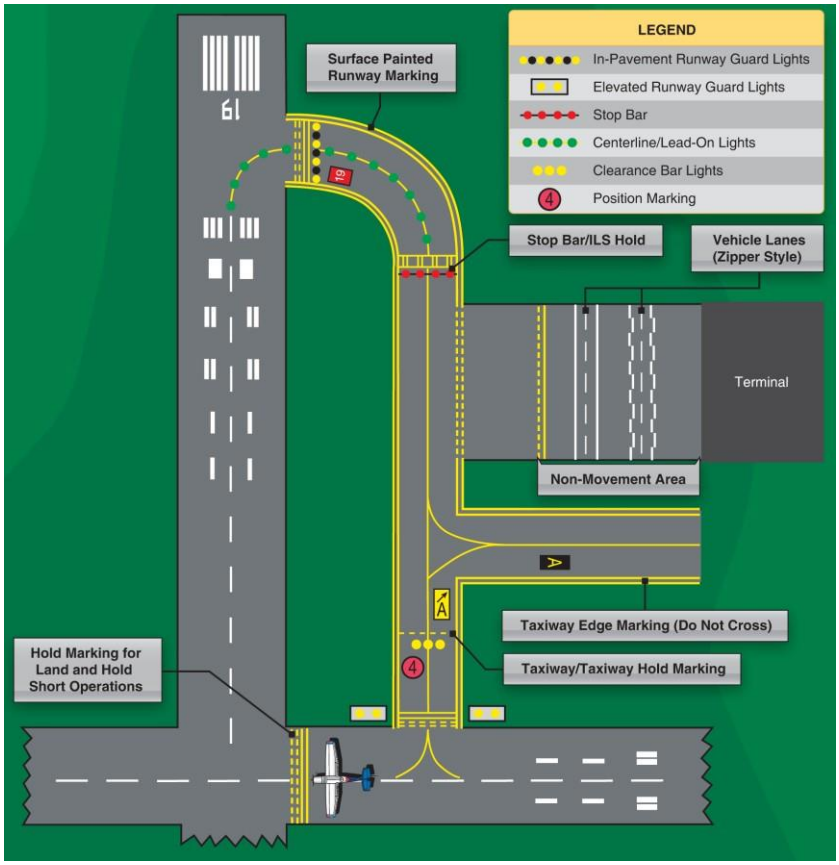
Airport pavement markings and signs provide essential information that is useful to flight crews and ground staff for GSE vehicles or aircraft manoeuvring on the ramp.

4.3.1.8.3 MARKING COLOURS

The marking colours should be very visible. The colours used for platform markings have the following uses:

- RED lines - safety warnings.
- WHITE lines - used for runways. A double white line or an offset white line may not be crossed. It marks the boundaries of a manoeuvring area.
- YELLOW lines - for taxiways, areas not intended for use by aircraft (closed and hazardous areas), and holding positions (even if they are on a runway).

Note: notwithstanding international conventions, airports may deviate from these generic rules. Always consult your local Airport Authority procedures.



4.3.1.8.4 GSE PARKING, STAGING AND STORAGE

Planning to accommodate the staging and storage of GSE contributes to a safer apron environment by ensuring that equipment not in use is positioned in areas that reduce the potential for aircraft and vehicle interaction.

GSE staging areas are used to pre-position equipment in advance of an aircraft arrival. These areas are generally located adjacent to each apron parking position. GSE storage areas are used to park GSE when not in use. These areas are often located on the apron in close proximity to aircraft parking positions, but outside the aircraft service envelope.
The position of aircraft parked on an apron typically provides large areas in front of its wings that are used for GSE storage and manoeuvrings.

Care should be taken that GSE equipment, when not in use, is consistently parked in clearly marked areas used for GSE parking, staging and storage.

4.3.2 GENERAL SAFETY INSTRUCTIONS FOR GROUND SUPPORT EQUIPMENT

Apply these procedures whenever operating GSE on the ramp. GSE must not be moved or driven across the path of:

- Taxing aircraft
- Embarking and disembarking passengers on the ramp.

	Only drive or operate GSE if you are trained and authorized for that specific equipment type.
	When operating equipment, check the equipment contact zone for possible aircraft damage and immediately report any damage found. Use all safety devices fitted on GSE (e.g. bumpers, handrails, stabilizers, etc.) during aircraft handling and servicing. Ensure protective rubber bumpers ARE NEVER placed/compressed against aircraft fuselage.

4.3.2.1 BASIC OPERATING REQUIREMENTS FOR GSE

- Check all GSE involved in aircraft handling at the start of a shift (at least once per day), in particular the “parking” brakes, rubber protective bumpers, safety systems and all other proximity sensors.
- Perform a vehicle/equipment walk around check prior to its use.
- Apply parking brakes and place the gear selector in the “PARK” or “NEUTRAL” position on all GSE when it is parked or positioned.
- When positioning GSE, make sure:
  - Clearance is kept between all GSE and the aircraft to allow vertical movement of the aircraft during the entire ground handling process–preventing every contact between the aircraft and equipment.
- Do not carry extra personnel during GSE movement without an approved seat; apply the “no seat-no ride” principle.
- Do not operate vehicles or equipment while using hand-held portable electronic devices.
- After positioning equipment on the aircraft, raise all safety rails on conveyor belts, loaders and other elevated devices, except where restricted by aircraft type.
- Turn off engine once positioned unless required for equipment operation.
- Do not leave any vehicle unattended with its engine running. (In extreme cold weather conditions, local procedures may apply).
- If equipped with stabilizers, ensure they are deployed before operation.
- For electrical or motorized GSE positioned at or near the aircraft, being utilized in the operating mode, the operator must keep within easy reach of the emergency controls. If the equipment is not fitted with external emergency controls, the operator must remain in the operating position and in control of the equipment.
- GPUs and PCA/Cabin heater units may be left running unattended when connected to the aircraft.
- Do not drive GSE with lifting devices in the raised position, except for final positioning of the GSE onto the aircraft.
- Do not allow any GSE such as tractor, baggage/cargo carts and dollies to move or be positioned under the aircraft fuselage.
- Do not move any GSE, including passenger boarding bridges, towards the aircraft unless all of the following criteria are met:
- Aircraft has come to a complete stop;
- Engines have been switched off and are spooling down;
- Anti-collision lights are switched off;
- Wheel chocks are positioned;
- Ground/Flight Crew communication has been established, and clearance has been given, if applicable.
- Note: The above does not apply for ground power units (GPU).
- GSE must be parked in designated airside equipment parking areas when not in use. Do not obstruct access to firefighting equipment or to the fuel hydrant emergency stop switch.

		Do not walk between carts, trolleys, dollies, trailers or other GSE equipment under tow!
		Equipment approaching, manoeuvring at or leaving the airplane shall not be driven faster than the walking speed.

4.3.2.2 NON-MOTORIZED GSE

When parked, all non-motorized GSE must have brakes set or chocks in place when not connected to motorized vehicles.

4.3.3 PASSENGER STAIRS

Note: reference: GOM/5 4.1.3.4

Most aircraft operated by Hyperion Aviation have internally fitted air-stairs. However, should passenger stairs be used, following must be observed:

- Check that the bridge is serviceable before use and check that the passenger stairs are serviceable before use.
- Check that the walking surfaces are safe for use.
- Passenger stairs must be outside the ERA before aircraft arrival and departure.
- Make sure the movement path is clear before moving the passenger stairs.
- Move the passenger stairs slowly towards the aircraft, avoiding any aircraft sensors, until either the protective bumpers just touch the aircraft or the equipment's proximity sensors stop the movement.
- Keep sufficient clearance between the passenger stairs and the underside of the cabin door, or as directed by the cabin door markings.
- Engage any safety systems and auto-leveller features if applicable. If the passenger stairs are not equipped with an auto leveller, the level of the passenger stairs must be monitored and adjusted as required.
- Deploy stabilizers if fitted.
- Extend side rails after the cabin door has been opened.
- Make sure passenger stairs are positioned so that the cabin door can be used as an unobstructed escape route in the event of an emergency/evacuation.
- If the passenger stairs are towed, disconnect them from the tractor and manually position them on the aircraft.
- Close the cabin door before removing the passenger stairs.
- Where integrated with the jetty, ensure ground power cables and PCA hoses are disconnected from the aircraft prior to moving the bridge unless required for operational purposes.
- After the cabin door has been closed, confirm there are no persons/staff on the stairs prior to retracting stabilizers.
- If the stairs are not positioned on the aircraft, they must be pulled back sufficiently to allow the deployment of slides in case of emergency.

	• Cabin doors shall only be in open position if there is any GSE or boarding device positioned at the door. Cabin doors may never be opened without any equipment positioned at the aircraft. • There is a risk of falling while operating cabin doors. • Slide deployments (ERJ190ECJ only) can be fatal. If an armed door begins to open, do not attempt to hold the door, as you risk being seriously injured or killed by doing so.

4.3.4 AIRCRAFT LOADING EQUIPMENT

4.3.4.1 BELT LOADER

The following precautions must be taken when operating a belt loader:

- The boom of the belt loader must never be positioned inside the cargo hold of any aircraft. However, specially designed belt loaders (e.g. Ramp Snake or "Powerstow") require the equipment to be positioned inside the cargo hold. The use of this equipment is not currently approved for use on/in Hyperion Aviation aircraft.

- Position and remove a belt loader in a straight line with the cargo hold door at a 90-degree angle to the aircraft fuselage.
- Ensure the boom is clear of the aircraft or other obstacles before making a turn.
- The rubber bumpers on a conveyor belt loader must never make contact with the aircraft. The minimum distance to be maintained at all times is 1 in/2.5 cm from the fuselage.
- Always raise side handrails as soon as belt loader is positioned. Make sure they do not touch the aircraft fuselage.
- Do not sit or stand on a conveyor belt while it is in operation (up or down).

4.3.5 GSE - SAFETY DRIVING & PARKING

		Equipment approaching, manoeuvring at or leaving the airplane shall not be driven faster than the walking speed.

Apply the following precautions when driving or parking Ground Support Equipment (GSE) within the Equipment Restraint Area (ERA):

- Make a minimum of one complete stop with all motorized vehicles/equipment prior to entering the ERA.
- Conduct a “Brake Check” or “Safety Stop” by coming to a full and complete stop to confirm the serviceability of the brake system on the vehicle and to test the apron surface.
- This action MUST be carried out even if there is no Equipment Restraint Line marked on the apron.
- This stop must be conducted at a distance of no less than 5m/15ft from the aircraft.
- Do not drive GSE faster than walking speed.
- Manoeuvre GSE carefully in order to prevent personnel injury and/or aircraft damage.
- When reversing vehicles or equipment with limited rear-view visibility inside the Equipment Restraint Area, make sure you are:
  - guided by an agent using standard IATA signals, and/or,
  - assisted by means of a rear-view video or mirror.
- Any moving vehicle that is not positioning at the aircraft must stay outside the operational safety buffer zone.
- Do not drive or park under the aircraft fuselage and/or wing.

Exceptions:

- GSE and vehicles needed for aircraft servicing (e.g. aircraft refuelling truck, water servicing truck, toilet servicing truck).

4.4 POTABLE WATER SERVICING

Note: reference: World Health Organisation: “Guide to Hygiene and Sanitation in Aviation” (3rd edition), IATA AHM 440, AHM 981, EU Drinking Water Standards.

Potable water systems are susceptible to contamination by bacteria and other microorganisms. All water for drinking made available to crew and passengers must be free from chemical substances and microorganisms, which might cause illness in any form.

It is therefore essential that potable water is chlorinated and that FBO/GSP operators adhere to sanitary requirements.

4.4.1 ROLES & RESPONSIBILITIES - POTABLE WATER DELIVERY

General roles and responsibilities for each such component are as follows:

Source Water Supplier (Public or Private): Role is to provide to the airport a safe water supply of sufficient quantity and quality. Responsibilities are to monitor the water system by sampling water and providing sampling results to the airport competent authority on request, advising the airport authority of any adverse results and action to be taken, and advising the airport authority when the water supply has or may become contaminated and of action taken.

Airport Authority: Role is to maintain the integrity of the water supplied and to provide safe water to the occupants, travellers, visitors, workers, water haulers and transfer points to the aircraft within the airport grounds.

Responsibilities are to monitor the water system by sampling water and sharing sampling results with authorities and also stakeholders on request and to advise not only the water supplier but all concerned parties who use their water of any adverse results and corrective actions. In some circumstances, the airport may be both the source water supplier and provider of treated drinking-water.

Water Haulers (Transfer Point): Role is to provide water to the aircraft.

Responsibilities are to maintain a safe water supply from the transfer point to the aircraft, to maintain the equipment in good working order, to monitor the water system by sampling water and sharing sampling results with stakeholders on request and to report adverse results and action to be taken to the aircraft operator and airport authority.

Aircraft Operator: Role is to provide a safe water supply to the passengers and crew for drinking, culinary purposes and personal hygiene.
Responsibilities are to maintain their on-board water tank(s) clean and free of harmful microbial contamination, to monitor the water system by sampling water, to share sampling results with stakeholders, to report adverse results to the competent authority and take corrective actions, and, when and where required, to advise the crew and passengers of the adverse results.

4.4.2 QUALITY STANDARDS

Regardless of its origin, water destined for aircraft potable water systems must be chlorinated. Only products approved by the local health authority and the customer airline should be used for the chlorination of drinking water.

Once filled, the potable water vehicle must not be used for aircraft servicing for a minimum of 30 minutes, in order to allow the chlorination agent time to react. The water must be circulated within the vehicle during this time to ensure thorough mixing with the chlorination agent. After 30 minutes the total residual chlorine content at the point of filling into the aircraft must be in the range of 0.2mg/l - 0.5mg/l.

All water on board aircraft intended for human contact must meet “The Guidelines for Drinking Water Quality” (GDWQ) or “national standards”, whichever are more stringent.

Water supplied to Hyperion Aviation aircraft must be checked by the local health authority, the results of which must be made available to Hyperion Aviation upon request.

4.4.2.1 MICROBIOLOGICAL PARAMETERS

Parameter	Unit	Limit
Total Bacteria	Count/ml	100
Coliform	Count/100ml	0
E. Coli	Count/100ml	0
Salmonella	Count/100ml	0

Important notes:

a) A disinfectant residual is detectable in water samples at the airport, at the transfer point and on the aircraft.
b) All samples meet GDWQ or national standards.
c) Turbidity is monitored, and increases in turbidity are investigated to ensure that water has not been subjected to post-treatment contamination.
d) No undesirable tastes, colours or odours are present in the drinking water.
e) Water pressure is sufficient for the intended purpose.

Guidance Notes:
All of the water on the aircraft intended for drinking, food preparation or human contact should be potable and meet the GDWQ specifications or national standards, whichever are more stringent. If the water provided at the airport, at the transfer point or on the aircraft does not meet the GDWQ or national requirements, the appropriate responsible entity must take measures to ensure that water on board will be safe. These may include, for example, providing water treatment, deciding not to board water at that location and/or obtaining water from an alternative source, such as a contract provider.

Disinfectant Residual:
The presence of a measurable disinfectant residual in the water at the point of use provides valuable information that contributes to the assurance that the water is microbial safe for the intended use. First, it demonstrates that the water has been disinfected; then it indicates that some level of protection is being provided during transport and storage and that some control of bacterial growth is being provided. The most common disinfectant used is usually a form of chlorine; in that case, the residual could be free chlorine, hypochlorite or chloramine.

Chlorine disinfection of low-turbidity water with appropriate contact time and pH will control bacteria and viruses.

The presence of the residual will be affected by the original dose, the disinfectant demand of the water, the type of disinfectant being utilized, the temperature, and the time since application of the disinfectant and whether contamination has occurred since application of the disinfectant.

The disinfectant residual for chlorine should be no less than 0.2mg/l and no more than 0.5mg/l. As the concentration increases, the likelihood of taste detection increases.

4.4.2.2 AIRCRAFT CONNECTION FOR WATER OF DRINKABLE QUALITY

Only water from an approved airport supply of drinking water may be used to fill potable water bowsers. Water samples, from airport water supply systems, servicing vehicles and aircraft water systems are regularly taken by the Local Health Authority and airlines for bacteriological examination. Sampling should be carried out at a maximum of every 12 months but preferably at least 4 times per year. Certificates should be available for inspection.

4.4.2.3 SANITARY REGULATIONS

Potable water servicers must not be filled up from the same tap as toilet servicers and the fill point must be a minimum of 30 meter away from anything associated with toilet servicing.

Potable water servicers and toilet servicers must not be parked in the same area.

Personnel engaged in toilet servicing are not allowed to perform water service or duties within the Galley areas at the same time, or on the same shift, unless all protective clothing used on TSU is changed before operating the water bowser and the personnel concerned have thoroughly washed their hands.

4.4.3 WATER CHLORINATION TEST

4.4.3.1 GENERAL

Water can be the carrier of organisms of many diseases including cholera, dysentery and typhoid fever. After being filled with drinking water and regardless of its origin, the water is chlorinated so that any bacteria still present will be exterminated.

The water chlorination test should be carried out after each complete fill in accordance with the procedure detailed by the supplier and the manufacturer of the test equipment.

4.4.3.2 PROCEDURE

The procedure to be followed should be in writing for the reference of all users and relevant to the test method available. The test equipment should be stored in accordance with the Manufacturer's recommendations and used in accordance with the Manufacturer's instructions. All staff required to use this equipment should be adequately trained and records of that training should be available for inspection.

4.4.3.3 WATER TEST RECORDS

A record must be kept of all water tests carried out on potable water supplied to company aircraft. The record will consist of date and time of chlorination and the ppm & mg/l of chlorine present when tested, (this is taken from the chart supplied by the water test kit manufacturer); and should be in the range as shown in the table in "GOM 4.3.2.1".
Potable water tests must be carried out each time the water bowser is replenished.

4.4.3.4 WATER BOWSER STERILISATION

Note: reference: IATA AHM440

Water servicing vehicles should be drained within 24 hours after filling.

Bowsers and couplings should be hyper-chlorinated weekly by filling the bowser tank with water containing 50mg/l of free chlorine, which should remain for a minimum of 30 minutes. The tank must then be drained via the hose and nozzle (Not a drain valve). Then when empty the drain should then be opened and the tank flushed with potable water.

The interior of the water tank must be scoured once a month to remove any deposits, preferably by steam cleaning and then disinfected as above.

A record must be kept of each cleansing. When re-filled the chlorination procedure described in "GOM 4.3.2" must be carried out.

4.4.4 USES OF POTABLE WATER ON-BOARD AIRCRAFT

Potable water is used in a variety of ways on board commercial transport aircraft, including direct human consumption, food preparation and sanitation/hygiene activities. Potential uses include:

- preparation of hot and cold beverages, such as coffee, tea and powdered beverages;
- reconstitution of dehydrated foods, such as soups, noodles and infant formula;
- direct ingestion from cold water taps;
- reconstitution and/or ingestion of medications;
- brushing of teeth in lavatories/washrooms;
- hand washing in lavatories and galleys;
- cleaning of utensils and work areas;
- preparation of hot, moist towels for hand and face washing ("Oshibori" towels);
- direct face washing in lavatories;
- on-board showering facilities (if installed/available);
- emergency medical use.

Appropriate personal hygiene for employees handling water at the transfer point cannot be overemphasized, and responsibilities for potable water transfer should be considered exclusive and separate from wastewater handling to avoid cross-contamination. Under no circumstances should employees be tasked simultaneously with both wastewater handling and potable water transfer.

Other issues to consider include the development of transfer procedures to ensure that contact of hose nozzles with the ground and other contaminated surfaces is not permitted and procedures to ensure that water trucks and carts are not parked directly adjacent to sewage equipment.

4.4.5 GENERAL HYGIENE PRECAUTIONS

	Water service must not be performed by staff that has already performed toilet servicing during the same shift. Only uplift water if authorized by the Commander of the flight.

To perform water servicing you must:

- wear clean clothing;
- thoroughly wash your hands using soap before starting water servicing:
  - Do not fill the potable water service unit from the same water source as the toilet service unit.
  - Do not park the potable water service unit and the toilet service unit in the same area. (Physical separation is required).
  - Do not service the toilet and water on the aircraft at the same time.

		Thorough washing of hands is mandatory, before and after servicing!
	Reminder! Do not service the toilet and water on the aircraft at the same time, or during the same shift.	

4.4.6 WATER SERVICING

It's important to check that potable tanks are clearly marked "Drinking Water Only" to insure they are not contaminated with non-potable water or any other liquid. In addition, it's important that all spare hoses to be used to fill drinking water be separately stored and labelled and used exclusively for drinking water.

	• Only trained and authorized personnel or trainees under instruction may perform the potable water servicing operation. • Follow all hygiene instructions. • If there is any doubt as to the quality of the water it must not be used. • Wear PPE appropriate to the task.

4.4.6.1 POSITIONING WATER VEHICLE AT AIRCRAFT

- On arrival at the stand carry out the mandatory brake checks.
- The operator must identify a Guide Person to assist in the final positioning of the vehicle at the aircraft.
- The operator and Guide Person must follow the company Guide Person operating procedure.
- When the vehicle is correctly positioned the operator will select neutral gear and apply the parking brake.

4.4.6.2 SERVICING POTABLE WATER

- Before the fill hose is connected to an aircraft, a few litres of water shall be pumped to waste, to ensure thorough flushing of hose and nozzle. When the horses are not in use, all nozzles or connectors must be protected from contamination either by covers or by immersing them in receptacles containing chlorinated water.
- Fill the aircraft water system only after the electrical power supply has been restored.
- Fill the aircraft water system as close to the departure time of the aircraft as possible.
- Before connecting the aircraft filling hose to the aircraft, flush the hose.
- Each aircraft type has specific requirements for filling and draining. Refer to the "GOM" for specific aircraft type servicing instructions.

Note: When the filling hoses are not in use, the nozzles or connectors must be protected from contamination either by the use of appropriate covers or by immersing them in receptacles containing chlorinated water.

	The contents of the potable water servicer must be drained not later than twenty-four (24) hours after filling.

4.4.7 WATER SERVICING DURING FREEZING CONDITIONS

The following actions must be followed to prevent freezing of the water in the aircraft water tanks and lines during freezing conditions:

- Drain the aircraft water tanks if instructed by the operating airline as per the operating airline procedures.
- Ensure the fill line is fully drained before closing the cap to prevent freezing of fluid inside.

	Keep aircraft cargo doors closed to prevent water lines from freezing when the cargo compartments are not being loaded or offloaded. Do not attempt to remove the frozen substance in the fill lines or connections or on the service panels. Contact maintenance immediately.

4.4.8 WATER TREATMENT PRODUCTS

Only products approved by the local health authority, should be used for the chlorination of drinking water.

- Milton Tablets (Milton Ltd.).
- Cee-Bee, 3007 SANTABS (McGean-Rohco UK Ltd.).
- Instachlor Tablets (Palintest Ltd.).
- Steadichlor Tablets (Palintest Ltd.).
- Calcium Hypochlorite (can be branded as Aquatabs, but it is the chemical not the brand that is important, it must be used in accordance with the manufacturer's instructions).

4.5 TOILET SERVICING

Note: reference: IATA AHM441

4.5.1 TOILET SERVICE INTRODUCTION

Toilet servicing is the process by which toilet waste is removed from an aircraft at the end of the flight, in a sanitary manner. The toilet waste holding tank is flushed then recharged with a toilet fluid (de-germ). The aircraft system is function tested and declared fit for service.

Failure to correctly service aircraft toilets on the ground may result in the toilets becoming unserviceable during the flight.

Flight safety could be compromised if an aircraft toilet system leaks during the flight. Leaking fluid will form as "blue ice" (a term derived from the blue colour of the de-germ products) and during the descent into warmer air, may become detached and hit a control surface of the aircraft or be ingested into an engine causing it to fail. Ice has also been known to fall to the ground and cause severe damage to property and danger to persons.

It is the responsibility of FBO/GSP Handling Staff operating the TSU, to ensure the proper procedure is followed and thereby prevent any of the above possible incidents from occurring.

The complete procedure for servicing the aircraft toilet waste tank consists of the following 3 steps:

- Draining of the waste tank(s);
- Flushing of the waste tank(s);
- Adding an amount of pre-charge and/or a concentrated deodorant pre-charge product, as applicable.

	• Toilet fluids are corrosive. • Prior to servicing, inspect the toilet servicing panel on the aircraft for signs of leakage. If any horizontal blue streaks are observed, the blue streak must be cleaned prior to servicing. After cleaning, look again for signs of leakage. Blue ice build-up in higher altitudes may influence airworthiness. • In case of a possible leak, immediately inform the airline representative, ground engineer, or advise the flight crew.

4.5.2 GENERAL PRECAUTIONS

- Only fully trained and certified staff are allowed to undertake toilet servicing. In view of the nature of the task personal protective equipment must be worn and ear defenders must be worn due to the proximity of the APU.
- Spillage must be reported.
- The vehicle must not be driven under the wings of the aircraft; the height of the vehicle is such that it may strike the aircraft. The driver must have a Guide Person during all reversing operations due to the close proximity to the aircraft required to carry out servicing.

4.5.3 HYGIENE PRECAUTIONS

By the very nature of the toilet function the threat of being infected by effluent is a potential threat to staff. Because of this staff are required to utilise all protective clothing provided, gauntlets, goggles, etc. This is due to the nature of the waste and the de-germ products used in the servicing of the aircraft.

Toilet service operatives are not permitted to enter the aircraft galley areas, or permitted to operate potable water vehicles, assist in the servicing or enter water vehicles in Toilet Servicing protective clothing and before washing hands thoroughly.

- Wear heavy rubber gloves, eye protection and protective clothing against harmful wastes when performing toilet servicing.
- Do not park the toilet service unit in the same area as the water service unit nor at the water filling point.

		Thorough washing of hands is mandatory, before and after servicing!
		Wearing of Rubber Gloves is mandatory!
	Once an agent has performed toilet servicing on an aircraft, the same agent CANNOT perform water servicing during the same shift.	

4.5.4 TOILET SERVICING PROCEDURE

Each aircraft type has specific requirements for toilet servicing and the amount of pre-charge and/or concentrated deodorant pre-charge product. Refer to "GOM" for aircraft type specific instructions for more details.

4.5.4.1 POSITIONING TOILET VEHICLE AT AIRCRAFT

- On arrival at the stand carry out the mandatory brake checks.
- The FBO/GSP operator must identify a Guide Person to assist in the final positioning of the vehicle at the aircraft.
- The FBO/GSP operator and Guide Person must follow the Company Guide Person operating procedure.
- When the vehicle is correctly positioned the FBO/GSP operator will select neutral gear and apply the parking brake.

4.5.4.2 TOILET SERVICING

- Prior to opening a toilet service panel, check for stains around the panel.
- While opening the service panel, stay clear and watch for signs of leakage.
- Stay clear of the drain-fitting cap while opening, and watch for signs of leakage.
- If required for a recirculation toilet, stir up the waste tank contents with an appropriate stick.
- Make sure the drain hose Y-fitting coupling is connected correctly, before a drain valve handle is pulled.
- Empty the waste tank(s).
- Flush the waste tank(s) twice and empty them again.
- Pre-charge the tank(s) with the correct quantity of water and disinfectant - as applicable.

- Fill the waste tank(s) with the correct amount of water and concentrated deodorant pre-charge packets or pre-mixed fluid as applicable.
- For aircraft equipped with a conventional toilet system, fill the waste tank(s) with the correct amount of water and pre-charge, or concentrated deodorant pre-charge.
- After servicing ensure that there are no leaks at the drain fitting cap and the end of the drain hose Y-fitting coupling.
- Close the nozzle tightly in order to prevent the accumulation of ice during flight and wipe off residual water and disinfectant.
- Check for possible leakage.
- After servicing close and latch the fitting caps and service panel door.

Inform aircraft maintenance or flight crew, if:

- Fluid leakage is observed.
- The drain valve will not open or the waste tank cannot be drained.
- Report any spillage of waste to the supervisor.

	• Only trained and authorised personnel or trainees under instruction are allowed to operate a toilet service vehicle. Always perform a pre-trip inspection. • Follow operating procedures and safe working practices at all times. • PPE must be worn as appropriate to the task. A Guide Person must be used at all times. • Never drive a toilet service vehicle under an aircraft wing. • Staff must not ride in the basket. • All spillages must be reported.

4.5.4.3 TOILET DRAINING

- Drain the aircraft waste system into the waste tank of a Toilet Service Unit (TSU).
- Observe the waste drain hose during draining to confirm that the waste tank is completely emptied. The hose will also vibrate for a few seconds as the contents of the waste tank pass into the waste tank of a Toilet Service Unit.

Note: Drain the waste tanks one at a time, if aircraft has multiple waste tanks, for optimal results.

4.5.4.4 TOILET SERVICING DURING FREEZING CONDITIONS

Take the following measures to prevent freezing of the fluid in the aircraft toilet tanks and lines during freezing conditions:

- Drain the waste tanks if the aircraft is parked in the open for several hours without electrical power supply and the temperature is, or is expected to be, below the freezing point, as per the operating airline procedure.
- Fill the aircraft toilet system only after electrical power supply has been restored, and as close to flight departure time as possible.
- Ensure the fill line is fully drained before closing the cap to prevent freezing of fluid in the fill line.

Do not attempt to remove the frozen substance in the fill lines or connections or on the service panels. Contact maintenance immediately.

4.5.4.5 BLUE ICE

It is unacceptable to dispatch an aircraft for flight with a leaking toilet, the leak would form blue ice at altitude, and on descent into warmer air this lump of ice would break off. It could hit a flying control or engine.

A leaking toilet is normally indicated by a tell-tale blue streak. If the streak is along the fuselage it means it has leaked in flight, if it runs down the fuselage it is a sign of poor servicing on the ground. The suspect toilet will require checking f or any post service leaks. If any are found, then maintenance must be informed. Any blue streaks should be wiped clean prior to departure.

It is unacceptable to dispatch an aircraft for flight with a leaking toilet, as apart from the flight safety dangers, the toilet will not function in flight.

4.5.4.6 INOPERATIVE TOILET SYSTEM

If defects of the toilet system prevent regular servicing:

- Ask qualified technical staff - if available - for assistance (e.g. removal of panels, etc.).
- If no technical staff is available, inform the Flight Crew or the respective Hyperion Aviation OCC.

4.6 FUELLING/DEFUELING – FIRE FIGHTING

Note: reference: IATA AHM462/9

- Fuel hoses and connections shall never be run over by ground equipment.
- With the exception of fuel trucks, mobile equipment shall not be positioned within the venting areas during fuelling of defueling.
- Operators of fuel bowsers must have completed a vehicle inspection to ensure the vehicle in their charge is serviceable and suitable prior to positioning up to Hyperion Aviation aircraft.
- Fuel bowser operators must stop approx. 6 meters from the aircraft before proceeding at a slow walking pace (5km/h). A final brake check must be performed at approx. 3 meters from the aircraft.

	Before fuel hoses are attached to the aircraft, it is imperative that the aircraft must be grounded, by means of grounding/bonding cable being attached/clamped to the aircraft's static grounding point.

4.6.1 ELECTROSTATIC CHARGES & AIRCRAFT BONDING

Distinct types of electrical potential difference, with the accompanying hazard of spark discharge, are possible during aircraft fuelling operations. The hazard of sparking can be eliminated by ensuring that the fuelling vehicle is electrically connected to the aircraft; so that a difference in electrical potential cannot occur between the two.

Bonding between the aircraft and vehicle is made by connecting a conductor between designated points, on clean and unpainted metal surfaces of the aircraft and the fuelling vehicle. Electrically conductive fuel hoses normally provide a back-up conductive path for discharge, but aircraft fuelling procedures recommend that conductive hoses should not be regarded as adequate bonding between aircraft and fuelling vehicle.

Where the over-wing fuelling is employed, the nozzle is normally bonded to the aircraft before the filler cap is removed; however, where under-wing fuelling is employed, the automatic metal-to-metal contact between the aircraft fitting and the coupling eliminates the need for separate bonding connection.

Drag chains on fuelling vehicles or conductive tyres on fuelling vehicles and aircraft are often used as additional safeguards but are not considered effective by themselves. They are useful however, since in the event that the aircraft / vehicle bonding is broken or faulty, the electrostatic charge could be discharged from the aircraft or vehicle through their respective tyres or drag chains.

As an additional safety measure, some practices specify individual electrical grounding of aircraft and vehicle. This measure would prevent any possible hazard caused by a broken or faulty bonding. It appears however, that this possibility is negligible if proper maintenance and testing of the wire used for bonding purposes between aircraft and fuelling vehicle is carried out.

In summary, where no electrical grounding is specified, the normal order of procedure to eliminate electrostatic discharge during fuelling operations by fuelling staff is as follows:

1. Bonding of aircraft and fuelling vehicle to one another.

2. Bonding of fuel nozzle to aircraft for over-wing fuelling arrangements.

Where electrical grounding is specified, the normal order of procedure is as follows:

1. Grounding of fuelling vehicle.
2. Grounding of aircraft.
3. Bonding of aircraft and fuelling vehicle to one another.
4. Bonding of fuel nozzle to aircraft for over-wing fuelling arrangements.

On completion of fuelling operations, all disconnections should be made in reverse order.

4.6.2 FUELLING SAFETY ZONE (FIRE PERIMETER)

Note: reference: IATA AHM462

The Fuelling Safety Zone (FSZ) is defined as an area of at least 3 meters in any direction from the centre-point of all fuel vent exits, refuelling plugs, aircraft refuelling ports, fuel hydrants, fuel hoses and fuelling vehicles. This distance may be further increased as required by local airport or civil aviation regulations.

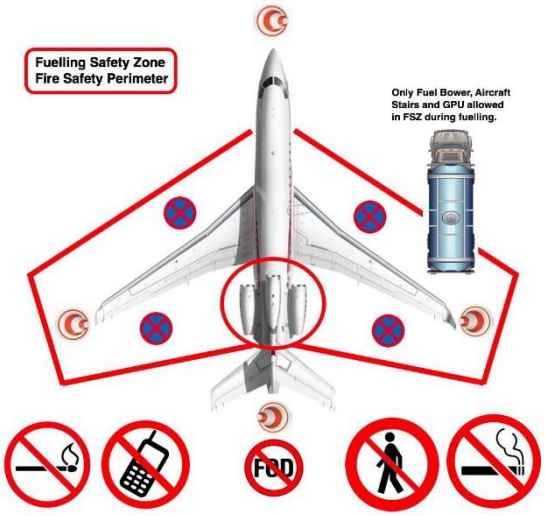
	Do not position ground equipment so it affects the egress of the fuel hydrant or fuel bowser. The fuelling vehicle and where applicable hydrant coupling point must have a means of access/egress at all times, if in doubt personnel should communicate with the fuel vehicle driver.

Within the Fuelling Safety Zone (FSZ), all personnel must ensure that they:

- do NOT smoke (smoking is prohibited on all airside areas);
- do not use ANY hand held portable electronic devices, including cell phones, portable music players, portable game units or an earpiece or headset;
- only use company issued and approved radios, radio telephones, pagers, torches, lamps and lighting systems.

Battery chargers must not be operated;

- enter the FSZ only when required by your present job task responsibility;
- assume that fuelling is taking place anytime a fuel vehicle is on the stand during aircraft servicing and fuel hoses connected;
- do not leave vehicle engines running unnecessarily;
    - position all GSE and vehicles so they do not obstruct the fuelling vehicles' escape route; this is not a mandatory requirement for hydrant type fuelling vehicles but every effort should be made to ensure a clear exit pathway;
- do not allow any passengers to enter the FSZ;
- avoid the use of motorized GSE within the FSZ;
- do not park any equipment in the FSZ;
- ensure fuel hoses are protected and all ground equipment is kept a minimum of 1 meter (3ft) away from any fuel hose on the stand that is connected between a fuel truck and an aircraft;
- do not operate, or leave objects within the FSZ, that can cause sparks.



CAUTION	5	Equipment approaching, manoeuvring at or leaving the airplane shall not be driven faster than the walking speed.

4.6.3 FUEL SPILLAGE

Note: reference: IATA ISAGO HDL-1.5.1

In the event of aviation fuel spillage, the following emergency measures are advised:

- Your first consideration is the immediate safety of all people present.
- Next call emergency services.
- Respond to contain the aviation fuel spillage only if it is safe to do so.
- If help is available, allocate responsibilities to others to create a competent emergency team to deal with the aviation fuel spillage.

Take the following first response safety measures whenever a fuel spillage occurs:

- Activate the emergency shut-off valve where installed.
- Alert the person in charge of fuelling and/or the Pilot in Command of the aviation fuel spillage.
- Contact the local fire service if not already done.
- Ensure passengers are protected and that no vehicles or sources of ignition are in the area.
- Verify with authorities/supervisor whether to stop all activity around the aircraft.
- As far as possible, restrict all activities inside and outside the aviation fuel spillage area to reduce the risk of ignition.
- Secure the area 15 meters from the aviation fuel spillage area.

Note: Clean up procedures should be available in local airport procedures manuals.

4.6.4 REFUELLING/DEFUELING WITH PASSENGERS ON-BOARD

4.6.4.1 GENERAL

Note: reference: IATA AHM462

Refuelling operations can be hazardous and, therefore, require the constant attention of all personnel involved. Fortunately, in commercial aviation, accidents associated with refuelling operations rarely occur. However, the absence of accidents should not result in complacency, because refuelling incidents, such as fuel spillage, frequently occur.

Teamwork is essential to accident prevention, particularly during aircraft refuelling operations.

Before fuel hoses are attached to the aircraft, it is imperative that the aircraft must be grounded, by means of a grounding/bonding cable being attached/clamped to the aircraft's static grounding point.

4.6.4.2 BACKGROUND & STATISTICAL DATA

Only refuelling incidents that result in severe aircraft damage or personnel injury are ever reported. Minor incidents are, unfortunately, not reported. However:

- Since 1961, a total of 8 (airliner) aircraft were damaged/destroyed during refuelling. The types of damage include cases of limited wing damage to cases of complete aircraft destruction.
- Injuries related to refuelling are rare.
- Each year, thousands of fuel spillage events occur worldwide.

A knowledge of fuel ignition characteristics helps identify refuelling risks. Fuel can be ignited by auto-ignition, or by an external source:

- Auto-ignition can occur, if the fuel temperature reaches 220°C (428°F), for example if fuel spills over hot parts of an engine, or hot brakes,
- An external source can also ignite fuel, if the fuel temperature reaches 40°C (104°F). This threshold is lower, if fuel is sprayed over the ignition source. Therefore, the higher the refuelling pressure, the higher the risk.

4.6.4.3 OPERATIONAL STANDARDS

Airworthiness authorities have defined the basic regulations to be applied during refuelling or defueling operations with passengers on board, and the role of each applicable team member. This section summarizes the main points of these regulations.

Refuelling with wide cut gasoline type fuel (JET B, JP4 or equivalent) or when a mixture with these types of fuel might occur, is not permitted with passengers boarding, on board or disembarking.
Refuelling with Kerosene (JET A, JET A1 JP8, TS1, RT, TH or equivalent, as approved by the approved Aircraft Flight Manual), is allowed when passengers are boarding, on board, or disembarking.

When passengers are on board the aircraft, precautions must be taken to ensure that they can be evacuated, in the rare case that a fire may occur. These precautions must be taken by the ramp agent, the Ground Engineer (qualified ground crewmember), the Commercial Attendant, and the Flight Crew:

- The Ramp Agent must ensure that:
  - The Flight Crew and Commercial Attendant and engineer are at their stations,
  - The area beneath exits intended for emergency evacuation is kept clear,
  - The fire service is alerted,
  - Passenger boarding / disembarkation is achieved in a controlled manner.

- The Flight Crew must:
  - Establish communication with the Ground Engineer,
  - Inform the Commercial Attendant of the beginning and ending of refuelling,
  - Listen for fire warning from the Ground Engineer,
  - Be prepared to initiate passenger evacuation if necessary.

- The Ground Engineer must:
  - Establish communications with the Flight Crew,
  - Inform the Flight Crew of the beginning and ending of refuelling,
  - Notify Flight Crew, if a fire occurs,
  - If an emergency evacuation is required, indicate (to the Flight Crew) the exits that are clear of obstruction. The Flight Crew must then inform the Commercial Attendant,
  - Stop refuelling upon Flight Crew request.

- The Commercial Attendant must:
    - Establish communication with the Flight Crew,
    - Inform passengers not to smoke (the "NO SMOKING" sign must be on),
    - Inform passengers to unfasten their seat belts (the "FASTEN SEAT BELT" sign must be off),
    - Ensure that emergency exits remain clear of obstruction,
    - Ensure that the "EXIT" sign is on,
    - Ensure that ground servicing (e.g. catering or cleaning) cannot create a hazard, or delay an emergency evacuation.

If fuel vapour is detected inside the aircraft, or if any other hazard occurs, refuelling or defueling must be stopped immediately.

Ground servicing activities and work in the aircraft (e.g. catering and cleaning), should be performed in such a manner that they do not create a hazard, and that the aisles and emergency exits remain clear of obstruction.

If passengers have to board or disembark during fuelling operations, this must be achieved under the supervision of a responsible, such as the Commercial Attendant, and the (on-board) "No Smoking" rules should be reinforced during all such movements. Passengers should not be allowed to stay near the outside of the aircraft.

Note: Refer also to the local airports and regulatory requirements. The above is applicable as a minimum standard.

4.6.4.4 EVACUATION/DISEMBARKATION

In case of a fire resulting from fuelling operations, or from a large fuel spillage, a precautionary disembarkation or an emergency evacuation may be performed. In both cases, the same recommendations apply.

Information about the incident is provided by the ground personnel, who will inform the Flight Crew of the nature of the incident. Good communication between ground personnel, the Flight Crew and the Commercial Attendant is a key factor in achieving a successful evacuation/disembarkation.

If a jet way is used for boarding, it should also be used for evacuation/disembarkation. A jet way provides a safe and efficient way to evacuate an aircraft, and enables passengers to be rapidly be far away from the fire, unlike the escape slides. In this case, the jet way handling agent is responsible for the passengers while they are in the tunnel.

If the stairs are against the aircraft, it is better that passengers use the stairs instead of escape slides (when fitted/available). This is because, before deploying escape slides, it is necessary to ensure that the area outside the aircraft is clear of obstruction. However, there may often be obstacles surrounding the aircraft (e.g. fuel truck, catering, baggage handlers, boarding passengers, etc.), and any contact with these obstacles or with personnel during escape slide deployment may make the situation worse.

It is possible to use the escape slides to rapidly evacuate the aircraft. However, if escape slides are used, it is very important to verify that there are no obstacles in the area where the escape slide will be deployed. In some cases, it may be necessary

to wait for equipment, personnel, or vehicles to move away from the deployment area, before arming the escape slide and opening the aircraft doors.

4.6.4.5 SAFETY PRECAUTIONS

Fuel vapours from the aircraft are heavier than the air. These vapours dissipate slowly, therefore, any spark near the refuelling area becomes a major fire threat.
During refuelling operations, it is recommended to:

- Ensure that the aircraft is properly bonded to the tanker: It sets the same electrical potential between the two vehicles and eliminates the majority of the risks of sparks.
- Ensure that the tanker and the aircraft are properly grounded (If a suitable ground is not available, the aircraft can be bonded to the tanker only). Always connect the ground cable to the parking ground point (or to the tanker) before connecting it to a grounding point on the aircraft.
- Ensure that no HF transmission (including HF transmission via the HF DATA LINK) is performed during refuelling/defueling operations.
- Synthetic clothes can produce sparks in dry atmosphere. It is better to wear cotton clothes, when approaching areas where there may be fuel vapours.
- Be aware that the connection or disconnection of electrical equipment, overheating external lights, the use photographic flash lights, are potential spark sources.
- Turn off cellular phones, as a precaution.
- In the unlikely event of passengers or visitors who are seen smoking in the vicinity of the aircraft being refuelled/defueled, they shall be politely, but firmly, requested to immediately extinguish their cigarettes, cigars, etc.

4.6.4.6 FUELLING & APU OPERATIONS

During refuelling operations, it is recommended to:

- If refuelling while operating the Aircraft Auxiliary Power Unit (APU), personnel must monitor the APU for emergency shutdown purposes.
- APU's shall not be started during the fuelling process.
- Except for emergency purposes, the APU must not be shut down during the fuelling process.

4.6.4.7 AIRCRAFT DE-ICING VEHICLES – FUELLING

De-Icing vehicles using either Liquid Petroleum Gas (LPG) or Gasoline for heating the fluid tank should never be used - within 20 meters of an aircraft fuelling operation - with the burner (heater) unit in operation. The operator must ensure that the unit is off, and all heating fuel valves are in the closed position, prior to applying the de-icing fluid to an aircraft parked on stand.

If there is a need to re-heat the de-icing fluid, the vehicle must be withdrawn to a “safe area” before doing so.

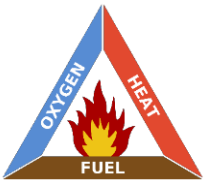
4.6.5 FIRE FIGHTING

Fuelling companies are responsible for ensuring that fire extinguishers, for the protection of the fuelling equipment, are readily available before the transfer of fuel begins. These extinguishers should be maintained to the standards recommended by the manufacturers, and fuelling company personnel should be trained in their use. Airport Operators will also provide airside fire extinguishing equipment. All staff should be familiar, by the locations where extinguishers are located, and with the selection and operation of the extinguishers in their local area of operations.

4.6.5.1 BASIC PRINCIPLES OF FIRE PROTECTION

By understanding the process of fire staff can readily extinguish it or minimise the effect of the fire.

Principles of Combustion: for any fire to take place there must be three vital factors present:		
	Fuel	This may be in the form of solids, liquids or gases.

	Oxygen	This being present in the air.
	Heat	This can be provided in many ways, i.e. naked flame, sun- light, electrical parts becoming hot, etc.

The above three factors will form, what is known as the "fire triangle". If any part of the triangle is removed the fire will be extinguished. This can be obtained by using one of the principles of fire extinguishing.

4.6.5.2 FIRE EXTINGUISHING - PRINCIPLES

Fire can be extinguished in one of the following three ways:

Method	Description
Starvation	Removing source of fuel, by turning off supply at source, removal of uninvolved fuel or blanking of fractured feed pipe.
Smothering	This means cutting off the supply of oxygen to the fire by means of application of a blanket of foam or using an inert gas which is heavier than air.
Cooling	By using water that will absorb the heat, thus in turn lowering the temperature.

4.6.5.3 CLASSIFICATION OF FIRES

Class 'A':

These are fires involving solid materials normally of an organic (compounds of carbon), in which combustion generally occurs with the formation of glowing embers. Class A fires are the most common and the most efficient extinguishing agent is generally water in the form of a jet or spray.

Class 'B':

These are fires involving liquids or liquefiable solids. For the purpose of choosing effective extinguishing agents, flammable liquids may be divided into two groups:

a) Those that are miscible with water.
b) Those that are immiscible with water.

Depending on class a) or b) the extinguishing agents include water spray, foam, light water, vaporizing liquids carbon dioxide and dry chemical powders.

Class 'C':

These are fires involving gases or liquefied gases in the form of a liquid spillage. Or a liquid or gas leak. These include Methane, Propane, Butane, etc. Foam or dry chemical powder can be used to control fires involving shallow liquid spills. (Water in the form of spray is used to cool the containers).

Class 'D':

These are fires involving metals. Extinguishing agents containing water are ineffective and even dangerous; carbon dioxide and the bicarbonate classes of dry chemical powder may also be hazardous if applied to most metal fires. Powdered graphite, powdered talc, soda ash, limestone and dry sand are normally suitable for Class D fires. Special fusing powders have been developed for fires involving some metal, especially radioactive ones.

Electrical Fires:

It is not considered, according to present day ideas, that electrical fires constitute a class, since any fire involving or started by electrical equipment must, in fact, be a fire of Class A, B or D. The normal procedure in such circumstances is to cut off.

the electricity and use an extinguishing method appropriate to what is burning. Only when this cannot be done with certainty will special extinguishing agents be required which are non-conductors of electricity and non-damaging to equipment; these include vaporising liquids, dry powders and carbon dioxide, although the latter's cooling and condensation effect may affect sensitive electronic equipment.

4.6.5.4 FIRE EXTINGUISHER - MEDIUMS & COLOUR CODES

Fire extinguishers can contain different medium for use on particular classes of fire. The medium is expelled either by the action of internal pressure or by the release of stored pressure by means of release of gas from a separate cartridge (i.e. CO2 gas cartridge).

CO2

An extinguisher containing liquid Carbon Dioxide (CO2) that is released as a gas in the actuation of the extinguisher. Colour Code BLACK: Class B or C Fires.

Foam

An extinguisher from which foam is expelled as a gas in the actuation of the extinguisher or by pressure released from a gas cartridge.
Colour Code CREAM: Class B Fires.

Halon/BCF

An extinguisher containing a Halon (BCF BTM) vaporising liquid that is expelled by the release of pressure stored within the body. Halon is a halogenated hydrocarbon or vaporising liquid sometimes referred to as BCF (Bromochlorodifluoromethane Halon 1211) or BTM (Bromotrifluormethane Halon 1301).
Colour Code GREEN: Class B Fires.

Dry Powder

An extinguisher containing a chemical powder that is expelled in the actuation of the extinguisher or by pressure released from a gas cartridge.
Colour Code BLUE: Class B or C Fires.

Water

An extinguisher from which water is expelled either in the actuation of the extinguisher or by pressure released from a gas cartridge.
Colour Code RED: Class A Fires.

4.6.5.5 FIRE EXTINGUISHER COLOUR CODES

Note: In many countries all fire extinguishers are now RED in colour but display coloured labels to signify which medium is available.

4.6.6 FIRE ON THE RAMP

Fire prevention is more important than fire extinction. Therefore, good housekeeping is essential. That means neatness and tidiness, by disposing of any rubbish and waste correctly into approved containers.

Handling Staff should get to know the location and use of fire-fighting equipment available at their airport ramp section(s). Furthermore, Handling Staff should:

- Get to know the procedures for calling local fire services, and remember to give exact location, as well as the type of fire.
- In the event of a fire (without putting themselves at risk), endeavour to safeguard the lives of both passengers and colleagues, as well as the aircraft or equipment involved.
- If an aircraft arrives with a wheel fire, always approach the wheel in the fore/aft direction never from the side. Solid streams of water or CO2 should not be used. Rapid cooling could cause the wheel to explode.
- When an aircraft lands with a suspected fire or a smoke warning in a cargo hold, a full passenger evacuation of the aircraft should be carried out before any hold door is opened. Hold doors must not be opened, except by a fire-fighting crew with the necessary equipment. Failure to observe this directive would result in an inrush of air into the hold, which could cause the fire to erupt with explosive force. The results could be disastrous if passengers are still inside the cabin above the hold.

Fire emergency checklist		Precautions
1. Raise the alarm.		Do not endanger yourself.
2. Evacuate people from the area.		Make sure you have an escape route.
3. Activate any emergency shutdown systems.		Do not use water on petroleum or electrical fires.
4. Call emergency services.		Do not leave the site unattended if there is a risk of further outbreak.
5. Call your manager / supervisor.		Advise your manager of the incident.

4.6.6.1 FIRE IN AIRCRAFT VICINITY

- Raise the alarm. The crew or staff on board the aircraft must be alerted immediately so that evacuation can start;
- The airport fire brigade must be called at once. All relevant information must be reported;
- Staff and passengers must be kept clear from danger.

4.6.6.2 AIRCRAFT ENGINE FIRES

- May not be fought by means of fire extinguishers used by ground staff;
- Are fought by flight crew by means of the on-board engine fire extinguishing system.

4.6.6.3 AIRCRAFT APU FIRES

- May not be fought by means of fire extinguishers used by ground staff;
- Are fought by flight crew by means of the on board APU fire extinguishing system.

4.6.6.4 GSE EQUIPMENT FIRE

If a fire is identified or suspected in a piece of ground equipment that is connected to or within 3 m of the aircraft, it is to be treated as an aircraft fire.

- Raise the alarm.
- Ground equipment not connected or close to the aircraft, the crew must be immediately informed.
- Stop all activity around the aircraft at once.
- Go on board and warn the flight crew and any other persons present that they should leave the aircraft via the normal exits. If verbal communications cannot be made the agent must attract the crew's attention and give the standard fire signal pointing towards the location of the fire.
- Warn the Airport Fire Department, via the flight crew or directly yourself.
- Position fire extinguishers.
- Remove all ground support equipment, which could interfere with an evacuation route.
- Switch off the Ground Power Unit and other ground support equipment after all persons have left the aircraft and all measures have been taken.
- Once everyone is evacuated, ground personnel must leave the area.

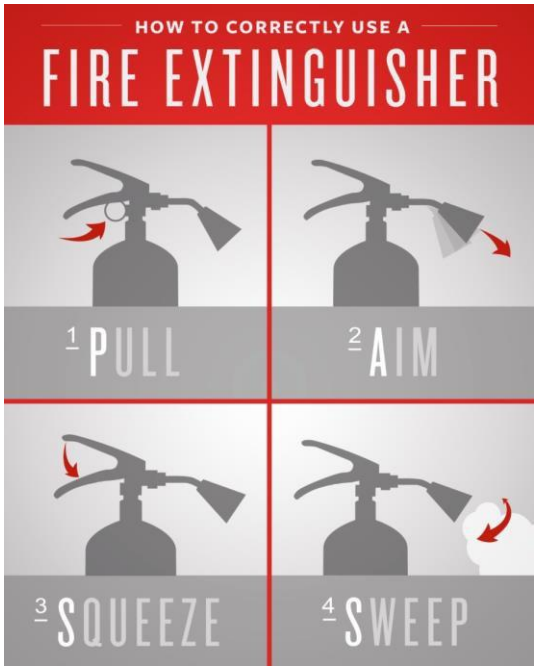
- Inform station management.
- If possible, tow the aircraft to a safer place if considered necessary.

4.6.6.5 USING A FIRE EXTINGUISHER

- Make sure the extinguisher is of the correct type.
- Make the extinguisher ready for use by breaking the seal/removing the safety pin.
- Carry the extinguisher to the fire.
- Keep yourself low to reduce the effect of heat and smoke.
- When in position, aim the extinguisher at the base of the flames.
- Discharge the extinguisher in a sweeping motion across the base of the flames.
- Keep going until you have completely extinguished the fire.
- If the fire becomes uncontrollable, or there is too much heat or smoke for safety, leave immediately.

The P-A-S-S technique for fire extinguisher use is explained as follows:

- P - Pull the pin. It is there to prevent accidental discharge.
- A - Aim low at the base of the fire, not at the flames. This is the where the fuel source is.
- S - Squeeze the lever above the handle to release the agent. Release the lever to stop the flow. (Some extinguishers have a button instead of a lever)
- S - Sweep from side to side. Move toward the fire, aiming low at its base. Sweep until all flames are extinguished. Watch for re-igniting. Repeat as necessary. Have site inspected by fire department.



CAUTION	Try to keep the wind in your back. Keep an escape route on your mind, which is free of obstacles

Place any fire extinguisher that has been used on its side on the floor. It will be collected and recharged after the fire scene is secure. After the event - complete an incident report for local authorities.

4.6.7 PERSONNEL CONTAMINATION - FUEL

In the event of contamination by aviation fuels, the following emergency measures are advised:

- Your first consideration is the immediate safety of all people present.
- Next call emergency services.
- Respond to contain the contamination only if it is safe to do so.
- If help is available, allocate responsibilities to others to create a competent emergency team to deal with the contamination.

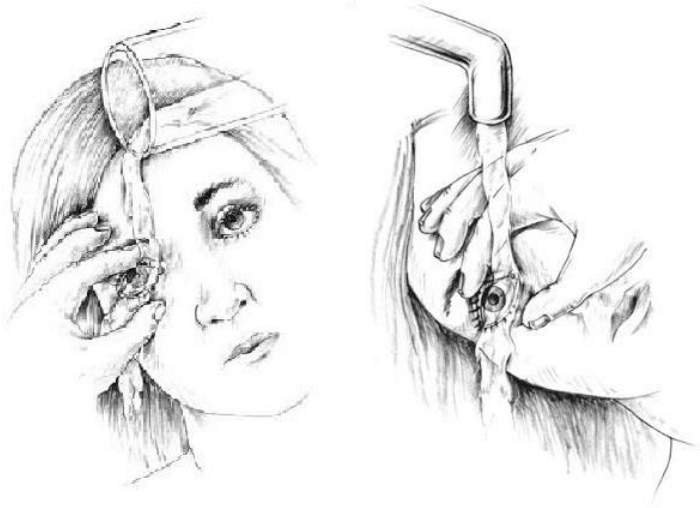
First response measures:

Skin:

- Remove any contaminated clothing and wash skin thoroughly with copious amounts of soap and water. If clothing has been saturated, drench with water, remove as soon as possible and wash underlying skin with soap and water.
- If skin subsequently becomes red, swollen or painful, seek medical attention at a Local Hospital Accident and Emergency (A&E) Department.

Eyes:

- The eye will be rather painful and vision might be impaired, eyes will be sore and red.
- Seat or lay casualty down with head tilted backwards and turned towards affected side.
- Wash out thoroughly with copious amounts of water or specialist eye wash, ensuring that the eyelid is held open, include both sides of the eyelid. (At least 10 minutes)
- Ensure water drains away from the face, apply dressing lightly over injured eyes.
- Do not allow contaminated water to splash on you or the casualty. (Place a towel on the casualty's shoulder.
- Go to local Hospital Emergency department for further specialist treatment as soon as possible.



Inhalation:

- Exposure to vapour, mist or fumes may cause drowsiness, nausea, headache, blurred vision or irritation of the eyes, nose or throat. If any of these symptoms occur, remove the affected person(s) to fresh air immediately, keep warm and call for medical assistance using local emergency procedures if symptoms are severe or persistent. Unconscious casualties must be placed in the recovery position and have breathing and pulse rate monitored.

Ingestion:

- If contamination of the mouth occurs, wash out thoroughly with copious amounts of water. If any fuel is swallowed, Do NOT induce vomiting as this could lead to potentially dangerous complications. Go immediately to Hospital Emergency for urgent medical attention.

4.7 ADVERSE WEATHER CONDITIONS

Note: reference: IATA AHM462, IATA GOM 5.4.5

Weather conditions such as rain, fog, snow or lightning reduce the visibility and may affect the operations on the platform. All activities shall develop with enhanced care under such conditions. The weather conditions shall be monitored and the staff shall be notified in due time about the weather forecast that could affect the operations on the platform.

Winter weather conditions can pose specific hazards to individuals and to the safe operation of aircraft and ramp equipment. Aircraft/ramp handling supervisory staff should provide guidance to all operational staff in initial training and reminders at the beginning of the winter season about winter hazards associated with their respective responsibilities.

Note: Airfield and ramp operations during winter weather conditions can increase the time required for the completion of routine tasks, this should be planned for and additional resource allocated where appropriate.

4.7.1 SLIPPERY APRON CONDITIONS

Rain or winter conditions bring extra hazards, which require awareness and more care on the part of personnel working on the aprons to prevent accidents. The following precautions, to reduce accident risk, must be taken:

- Plan additional time for all ramp activities and take extra care when walking across apron surfaces, which can be slippery.
- Take extra care when driving, especially approaching the aircraft. Remember that vehicles require greater distance to stop safely.
- Operators of potable water tankers and toilet servicing vehicles must be vigilant that there is no spillage or leakage that can lead to subsequent freezing. Care must be taken to keep spillage and overflow to a minimum.
- Close all entrance and cargo hold doors as soon as possible and keep them closed to avoid precipitation or snow entry into the aircraft.
- Reduce speeds in slippery apron conditions. Adjust all activities and operations on the ramp to suit the conditions at the time.

Drivers of ramp vehicles should be prepared for increased stopping distances and reduce speeds accordingly. Extreme caution should be exercised when approaching an aircraft with ramp equipment particularly when aircraft de- icing/anti-icing fluids have been in use. Tug drivers should assess the push back area surface and not attempt an aircraft push back unless the surface provides sufficient traction. Ramp vehicles without protective covering of the driving controls may present hazards due to control surface contamination. Drivers must check that all controls are free from ice/snow/slush and that hand and foot controls provide normal operating conditions.

4.7.1.1 SLIPPERY APRON - PASSENGER WALKING AREAS

Note: reference: IATA AHM462, GOM 6.4.1

Winter conditions and rain bring extra hazards, which require awareness and more care on the part of personnel working on the apron to prevent accidents. The following precautions should be taken to reduce accident risks in connection with passengers entering the ramp area for boarding/embarkation or disembarkation:

- Plan additional time for all passenger transfer activities and take extra care to warm passengers before they start walking across apron surfaces, which can (and will) be slippery.
- Take extra care when driving passenger busses, especially approaching the aircraft. Remember that vehicles require greater distance to stop safely.

Reduce all process speeds in slippery apron conditions. Adjust all activities and operations on the ramp to suit the conditions at the time.

4.7.2 THUNDERSTORMS & STORMS & LIGHTNING

4.7.2.1 NOTIFICATION LEVELS

1	Green – Possibility of Lightning or Thunderstorm activity outside of 8 kilometres (5 miles) radius of the airport.	Disseminate lightning warning to airside operating staff.
2	Amber Alert – Lightning activity within 8 kilometres (5 miles) radius of the airport	Disseminate lightning warning to operating staff so they can prepare and plan their activities to be ready in case of a level 3 in accordance with local regulatory requirements.
3	Red – Stop/Suspend – Lightning activity within 5 kilometres (3 miles) radius of the airport.	Disseminate the order to stop all airside activities and seek shelter to all airside operating staff.

4.7.2.2 LIGHTNING ALERT CALLOUT

In the absence of an integrated airport notification system all airside operating staff shall be aware of the following procedures.

- Use Counting Method (see "GOM 4.6.2.3") to detect/predict lightning activity. Determine the corresponding level based on the Count Method diagram.
- The responsible person notifies all airside operating staff of lightning level. If the person responsible is not available the Counting Method should be used by all airside operating staff for self-protection.
- In case of a level 3 (Red), proceed to designated shelter(s).

4.7.2.3 COUNTING METHOD

The counting method is used when an integrated airport notification system is absent. It is used to estimate the level of lightning activity.

The Counting Method is explained and shown in the following drawing.

Calculating the distance from lightning in miles or kilometres is easy. Sound travels one kilometre every three seconds (one mile every five seconds). Therefore, if you want to find out how far you are from lightning, divide the number of seconds by 3 if you want the distance in kilometres (divide the number of seconds by 5 if you want the distance in miles). The delay between when you see lightning and when you hear thunder occurs because sound travels much more slowly than light. Here's what you do:

- Let's say you counted 18 seconds. To find your distance from the lightning in kilometres, divide 18 by 3 to get 6 kilometres. (To find your distance from the lightning in miles, divide 18 by 5 to get 3.6 miles.)

- Though you won't be able to get a completely accurate result because the weather may vary in temperature and humidity, which will slightly affect the speed of sound, this is a good way to estimate how far you are from the lightning.

4.7.2.4 LIGHTNING & ASSOCIATED ACTIONS

When lightning is present (visible) in Level 2 (Amber) situations:

- Do not communicate with the flight deck using a connected communication headset. If necessary, communicate using standard hand signals as shown in "GOM 4.8".
- Do not stay in open areas, under the aircraft loading bridge or near any pole.
- Stop all ground handling operations.
- All Handling Staff will shelter inside the buildings and/or the vehicles.
- Do not hold metal equipment/tools in your hands or on your body.

When lightning is active in Level 3 (Red) situations:

- Embarking/debarking of passengers shall be interrupted.
- No headset equipment shall be used.
- Aircraft supply will be interrupted.
- The whole staff shall be withdrawn from the platform.
- Staff will shelter in buildings or in vehicles.
- Normal operating conditions shall be resumed when the closure phase has been finished.

4.7.2.5 FUELLING

Aircraft fuelling must immediately be stopped and is prohibited during thunderstorm activity.

4.7.3 HIGH WIND CONDITIONS

High winds pose a great risk of damage and the following minimum precautions should be taken:

- Ensure the safety of the aircraft by installing additional chocks and removing all equipment from around the aircraft.
- Be careful when operating the aircraft doors in strong wind conditions. Injury to persons and/or damage to equipment can occur. More than one person can be necessary to operate the aircraft doors in strong wind conditions.
- Take extreme care when opening or closing aircraft hold doors.
- Make sure parking brakes are set on all parked GSE and service vehicles.
- Set parking brakes and secure by additional means if necessary, all non-motorized ramp equipment. (i.e.: baggage carts).
- All vehicles/devices not directly connected to the servicing of the aircraft shall be removed from the aircraft and secured.
- The aircraft cargo doors shall be closed and secured.
- A check must be performed that the luggage containers on push-carts are secured against moving.
- Other items such as (ULD) containers, parked on airport aprons, and garbage baskets will be secured accordingly to avoid hitting parked aircraft and/or equipment.

4.7.4 HIGH WINDS ACTIVITY TABLE

The following actions must be taken when sustained winds and/or gusts of wind exceeding 25 KTS are predicted;

High Wind Activity Table Actions to be performed	46 to 72km/h 25 to 39	73 to 110km/h 40 to 73	Above 111km/h Above 60
Secure bag/freight carts, dollies, ladders/maintenance stands and tow bars and place near or against the building.	X	X	X
Ensure parking brakes are set on all ground equipment.	X	X	X
Ensure doors/curtains are closed.	X	X	X
Clear FOD and remove other equipment (e.g. ULDs) from the stands.	X	X	X
Empty FOD containers and bring inside if not secure.	X	X	X
Suspend use of pre-conditioned air hoses and store securely. Remove marker cones.	X	X	X
Ensure landing gear is chocked for high wind conditions.	X	X	X
Do not elevate cabin service/catering high-lifts and passenger stairs equipped, or not equipped, with stabilizers.		X	X
Close cargo hold/passenger doors.		X	X
Close all aircraft access panels.		X	X
Do not elevate booms on de-icers.		X	X
Remove GSE from aircraft and secure in position outside ERA clear of aircraft.		X	X
Secure boarding bridge and position to minimize surface exposed to the direct force of the wind.		X	X
Retract and lower boarding bridge. Position so that boarding bridge length points away from the wind.			X
Stop all ground handling operations at the aircraft.			X

	Try to keep the wind in your back. Keep an escape route on your mind, which is free of obstacles

4.7.5 HEAVY RAIN & SNOW

In case of heavy rain or snow, attempts must be made in order to reduce excess water or snow entering the aircraft and create hazardous & slippery floor. Excess water ingress can also cause technical malfunctions of the electric systems.

Ramp personnel should wear appropriate rain and/or winter clothing and any required personal safety equipment.

4.7.5.1 WINTER OPERATIONS – RAMP SALT/SAND

The airport operator must approve all de-icing or surface treatments. The use of salt or sand/salt mixtures on ramp/gate surfaces or in the vicinity of aircraft is strictly forbidden.

4.7.6 LOW VISIBILITY (FOG & SNOWING)

All activities around the aircraft shall be performed with enhanced care. In order to secure maximum visibility at low luminosity, the staff will bear equipment that contains reflecting material.
If ground markings are obscured by snow/ice/slush, ensure your vehicle is not parked outside of designated safe parking areas.

Aircraft:

- the aircraft position lights are on during the ground operations.
- If the aircraft is pulled at reduced visibility, it will be lightened accordingly.

Equipment, GSE, Devices:

- The vehicles/GSE/devices shall have the rotating overhead lamps on.
- All vehicles that are not necessary for the immediate servicing of the aircraft shall be removed from the manoeuvre surface and the pedestrian traffic will be reduced.

- Only the vehicles/GSE/devices directly concerning the handling of the aircraft are authorized to carry on their activity(ies).
- The vehicles/GSE/devices will be in permanent radio connection with the FBO/GSP dispatcher's office (when available).
- Speed limitations must be observed; the moving speed of the devices will not exceed the walking speed of a pedestrian.
- All devices destined for services or for loading/unloading that approach the aircraft or move away from it will do this only guided.

		Equipment operating in low visibility or snow conditions shall not be driven faster than walking speed.

4.7.7 PARKING AIRCRAFT IN WINTER CONDITIONS

Before (protective) engine covers are installed, FBO/GSP Handling Staff, or Crew, will:

- Remove all ice or snow that has collected in the engine intakes.
- Remove all water from the engine intakes.
- Let the engines become cool before the blanks are installed.

Before aircraft covers are installed/placed, a layer of anti-ice fluid can be applied to the contact surface. This will prevent a bond of the covers to the surface through frost or ice.

4.7.8 INTERNAL ICING - DOORS & PANELS

Aircraft doors and/or panels should never be left open unnecessarily, particularly during rain, sleet or snow. Any deposits which have been allowed to build on the inside of the aircraft, on the inside of the door and in the sill areas must be wiped up. Freezing in these areas could lead to door/panel icing.

4.7.9 SAND & DUST STORMS

Sandstorms can become a life- threatening hazard in certain (desert) regions, as they move at very fast speeds, develop with little warning, and can tower some 100 to 300 meters high.

If (heavy) sand storm activity is predicted, the best strategy is to either have the Hyperion Aviation crew position the aircraft out of the affected area, or follow the same procedure for high winds, with the addition of covering up all open access points.

4.7.10 EXTREME HEAT

4.7.10.1 PASSENGER COMFORT

When parked during daylight in (extremely) hot weather, it is suggested that the cabin window shades be closed to reduce solar heat transfer. An optional exterior windshield cover performs the same function for the cockpit and is very effective.

4.8 SAFETY CONES & CHOCKS - AIRCRAFT & GSE

Note: reference: IATA AHM462, ACI Airside Safety Handbook 3.11, Flight Safety Foundation-Ramp Operational Safety Procedures, European Aviation Group for Occupational Safety and Health-Recommendation No7
Safety cones are a caution sign for drivers to maintain required safety clearances. Cones protect parts of the aircraft against collision by GSE.

4.8.1 SAFETY CONES - GENERAL

The safety cones used for Hyperion Aviation aircraft should:

- be conical in shape,
- be of a minimum height of 75cm,
- have a minimum base weight of 4,5kg,
- be orange in colour with reflective striping.

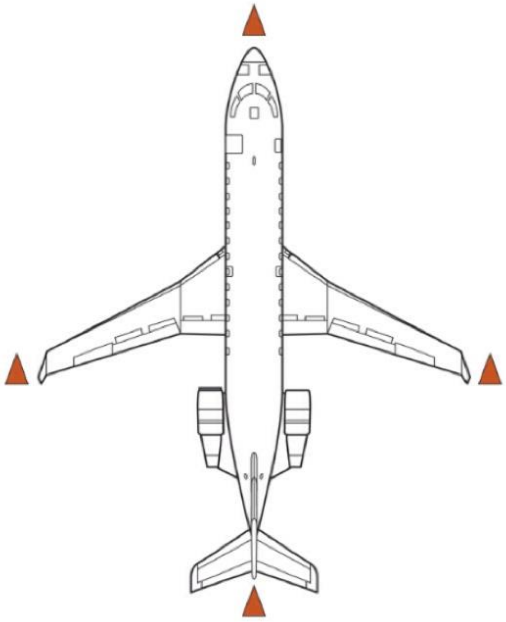
4.8.2 SAFETY CONE PLACEMENT & REMOVAL

- Prior to arrival of the aircraft, make sure there are sufficient serviceable safety cones to protect the aircraft type to be handled.
- Do not approach the aircraft to position cones unless all of the following criteria are met:
- Aircraft has come to a complete stop.
- Engines have been shut down and are spooling down.
- Anti-collision lights are switched off.
- Aircraft has been chocked.
- Cones must be placed maximum one meter from each cone reference point.
- Cones must be placed at both wingtips, at the nose and tail, for aircraft with tail mounted engines.

- Cones must be placed at both wingtips, at the nose and tail and in front of each engine for aircraft with wing mounted engines
- Cones must be placed within a maximum of 1-meter outward from the point of the aircraft being protected.
- Cones must not be placed in high wind conditions:
- Additional safety cones may be needed as per operational requirements or local regulations.
- GSE must not approach the aircraft until all safety cones have been placed (not applicable for boarding bridges).
- All required safety cones shall remain in place until GSE and vehicle activities around the aircraft have ceased, and be removed just prior to departure of the aircraft.
- Ensure all GSE has been removed from the safety zone.
- Remove the safety cones from around the aircraft.
- When not in use, place the safety cones in the designated storage area.

Note: Safety Cones' reflective striping tends to wear off after a few years in use, outside on the ramp. Care should be taken that either the cone, or the reflective striping is replaced when worn out. Cones with worn out reflective striping defeat their purpose of being seen in dark, and as such become an additional (FOD) risk in itself.

Safety Cone Placement



Regional Jet

When aircraft are parked on an open ramp, adjacent to a service road, additional cones should be placed.

When GSE equipment should fail while being placed/used on an active ramp environment, it should always be secured by cones placed on its side and at its front and tail ends.

4.8.3 AIRCRAFT CHOCKS

Note: reference: IATA AHM462

Aircraft chocks should:

- be of a high visibility colour or be identified by high visibility markings,

- be triangular in shape, or with a 45° angle at which the aircraft tire(s) makes contact,
- be made of a material that has a suitable coefficient of friction and that has adequate rigidity,
- be long enough so that it covers full width of the wheel(s) required to be chocked,
- be high enough in relation to the size of the aircraft wheel and type of tyre
- be stored in a dedicated area so that they are not the cause of FOD.

Note: Chocks/Blocks reflective striping and/or bright colour tend to wear off after a few years in use outside on the ramp. Care should be taken that either the block is repainted (or replaced when completely worn out), or the reflective striping is replaced. Chocks/blocks with worn out reflective striping, or completely faded base colour, defeat their purpose of being seen in dark, and as such become an additional (FOD) risk itself.

	Chocks should not be placed on the stand until after the aircraft arrives.

Make sure that adequate numbers of serviceable chocks are available for the aircraft arriving taking account of the ramp and / or weather conditions.

Do not approach the aircraft to position chocks unless:

- Aircraft has come to a complete stop.

One designated member of the ground staff immediately places chocks forward and aft (if aircraft type allows) of the nose gear. This is the first action to take place around the aircraft, and shall be completed before any other activity may take place.

Wait until:

- Engines have been switched off and are spooling down.
- Anti-collision lights are switched off.

Furthermore:

- Place chocks forward and aft of the main gear in accordance with the applicable normal chock placement diagram.
- Walk towards the main gear in a path parallel to the fuselage.
- Remove any temporarily placed nose gear chocks, if applicable.
- Give the ‘Chocks Inserted’ hand signal to the flight deck crew.

When placing wheel chocks: Stand well clear of the path of the tires, as serious injury could occur if the aircraft begins to roll prior to the final placement of the chocks. Approach/leave the main landing gear from the front or rear. This minimizes the risk of serious injury since aircraft tires are designed to burst in the direction of the wingtips.

Notes:

- When inserting wheel chocks, position one chock in the centre in front and one behind the tire(s), parallel to the wheel axle and only lightly touching the tire. For double axel gears, the chocks are positioned forward of the front tire and aft of the rear tire on the gear.
- If the aircraft is parked on a slope, place the chocks firmly against the down side of the tire.

- Eliminate space between a wheel chock and the tire to reduce the chances that the aircraft will “jump” a wheel chock by getting a rolling start.

4.8.4 CHOCK PLACEMENT – SAFETY

Care should be taken when placing aircraft chocks as inattention could cause serious hand injuries.

- Place chocks by holding them at the side.
- Chocks must be in contact with the wheels.
- Do NOT place hands between chocks and aircraft wheels.

4.8.5 NORMAL CHOCK PLACEMENT DIAGRAMS

Aircraft with single axle Main-gear bogie.

4.9 HAND SIGNALS

Note: reference: North Atlantic Treaty Organization (NATO) Standardization Agreement 3117, Air Standardization Coordinating Committee Air Standard 44/42a, the International Civil Aviation Organization (ICAO), and the Federal Aviation Administration (FAA) signals.

4.9.1 INTRODUCTION

In order to standardize “ground staff–ground staff” communication or “ground staff–flight crew” communication, the following hand signals are defined:

- Guide Man Hand Signals: to be used by a specific guide man in direct liaison with the equipment operator to facilitate movements of any type of GSE.
- Marshalling Hand Signals: to be used by qualified ground staff, to assist the flight crew during manoeuvring of the aircraft and engine starting.
- Technical/Servicing Hand Signals: to be used by qualified ground staff to communicate technical/servicing information to flight crew, and by flight crew to communicate technical/servicing information to ground staff.
- Pushback Hand Signals: to be used during the tractor/tow bar connection/disconnection process, and at the start and end of the pushback operation.

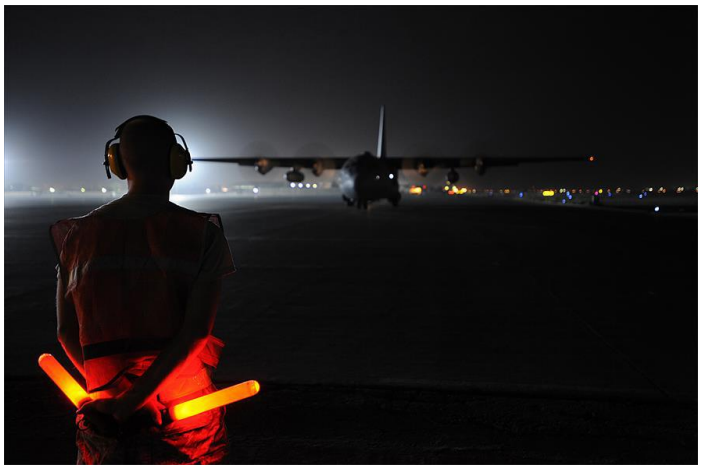
4.9.2 CONDITIONS FOR USING HAND SIGNALS

The person giving the hand signals must:

- Use only approved hand signals as described in this chapter.
- Wear a high visibility vest (Hi-Viz),
- Be clearly identified to avoid any possible confusion.

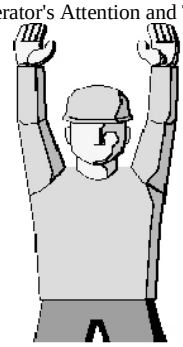
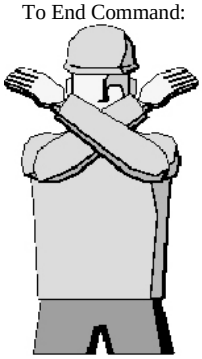
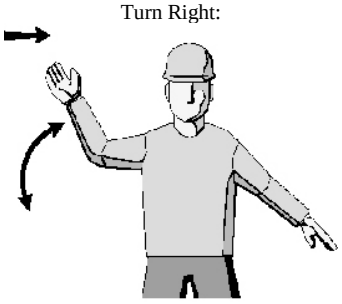
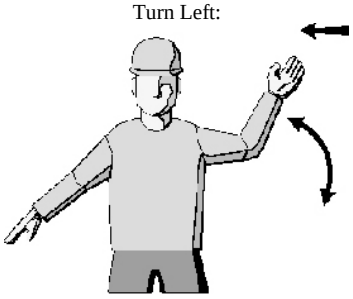
- Maintain the same role throughout the procedure.
- Keep in constant, visual contact with the other ground staff and flight crew throughout the manoeuvre. If visual contact is lost, the operation must stop and not re-commence until visual contact is re-established.
- Remain clear of the intended pathway of the vehicle/aircraft where possible.

In dusk, darkness, low visibility conditions, use illuminated torch lights/wands/batons to improve the visibility of the baton/hand signals and to increase personal safety.

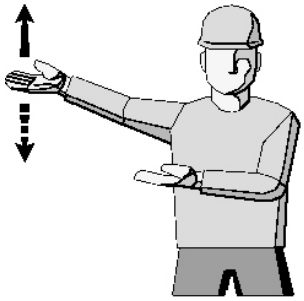


4.9.3 GUIDE MAN HAND SIGNALS (FOR GSE)

To Attract Operator's Attention and Take Command:

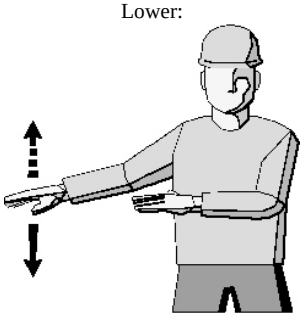
To Attract Operator's Attention and Take Command:  Arms held above head in vertical position with palms, facing forward. Meaning: I am in charge of this manoeuvre. You will take orders only from me.	To End Command:  Arms crossed on chest. Meaning: I am no longer giving you orders.
Turn Right:  Left arm downward, hand extended, right arm repeatedly moved upward backward. Speed of arm movement indicating rate of turn.	Turn Left:  Right arm downward, hand extended, left arm repeatedly moved upward backward. Speed of arm movement indicating rate of turn.

Lift:



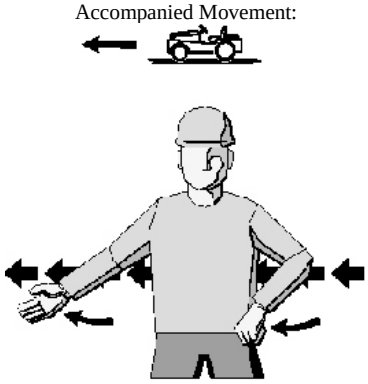
Stretch both arms toward load or equipment, palm up, hand movement in upward direction.

Lower:



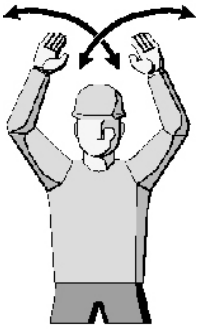
Stretch both arms toward load or equipment, palm down, hand movement in downward direction.

Accompanied Movement:



Come with Load or equipment. Maintain eye to eye contact with operator or driver. Swing down opposite arm.

Stop:



Arm repeatedly crossed above head (the speed of the arm movement must be related to the urgency of the stop). Immediate stop: Hands cross over head with clenched fists.

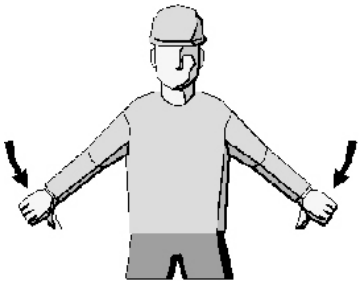
Indicate Distance:

Distance shown between hands must correspond exactly with existing margin.

OK. All is Clear,
Or, continue by Your Own, Or, Drive Away:

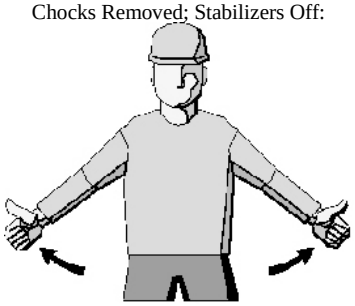
Lift stretched right arm, hand closed, thumb raised.

Chocks Inserted; Stabilizers On:



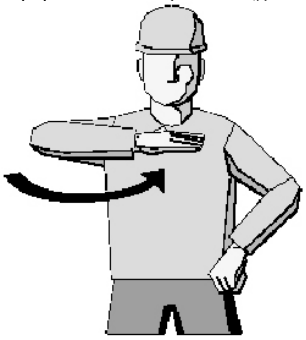
Arms down, hand closed facing inward, thumbs extended, move arms inwards.

Chocks Removed; Stabilizers Off:



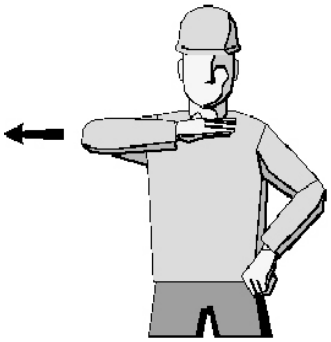
Arms down, hands closed facing outward, thumbs extended, move arms outward.

To interrupt power source: (Electricity, Fuel, Air)



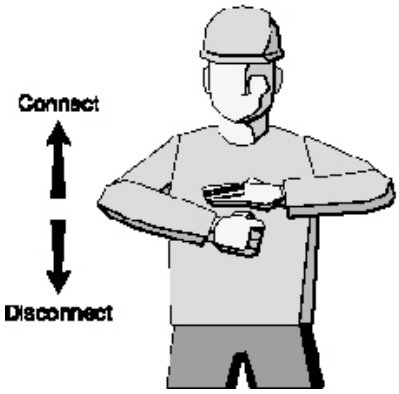
Right arm and hand level with shoulder, palm downward horizontally swinging from extended arm to throat.

Stop Engine:



Right arm and hand level with shoulder, palm downward, hand on throat making horizontal move to the right, passing hand across throat.

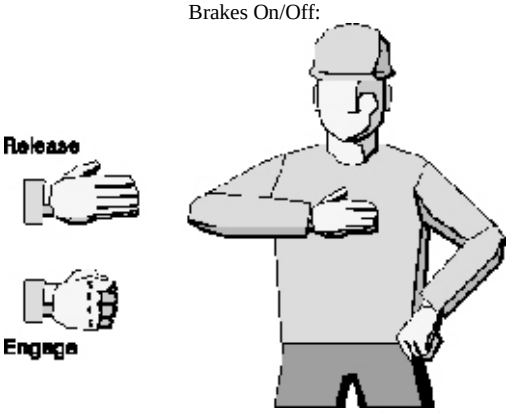
To Connect or Disconnect:



Raise left arm and hand, with fingers extended horizontally.

Connect: Right hand with clenched fist moving upward to contact left palm.
Disconnect: Right hand with clenched fist leaving left palm downward.

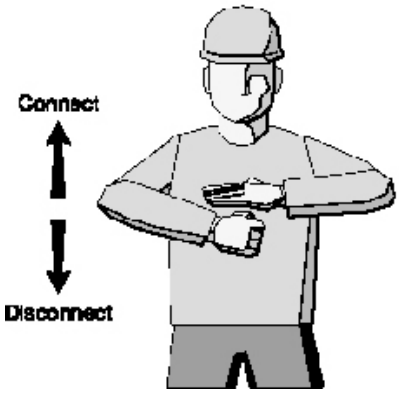
Brakes On/Off:



Right arm and hand raised horizontally in front of body.

Release brakes: With fist clenched, then extend fingers, palm inward.
Engage brakes: With extended fingers, palm inward, then clench fist.

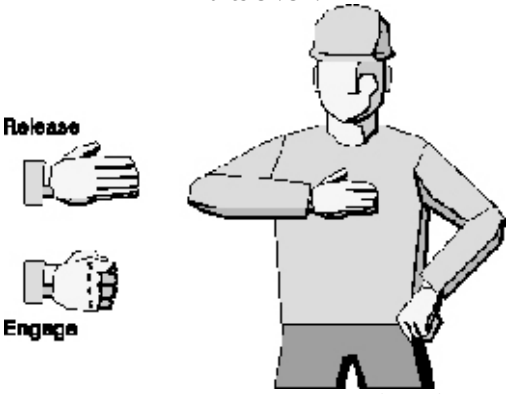
Connect or Disconnect:



Raise left arm and hand, with fingers extended horizontally.

Connect: Right hand with clenched fist moving upward to contact left palm.
Disconnect: Right hand with clenched fist leaving left palm downward.

Brakes On/Off:



Right arm and hand raised horizontally in front of body.

Release brakes: With fist clenched, then extend fingers, palm inward.
Engage brakes: With extended fingers, palm inward, then clench fist.

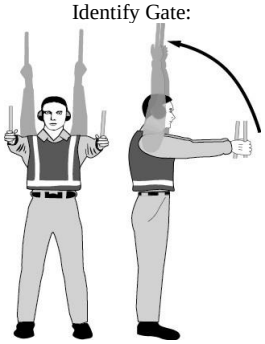
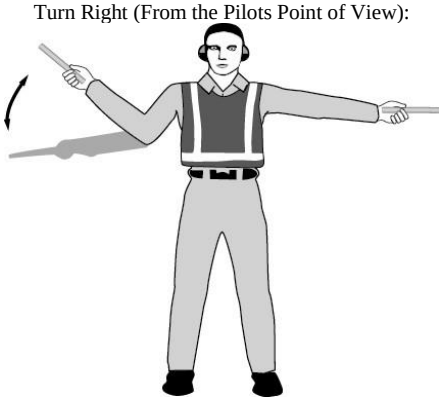
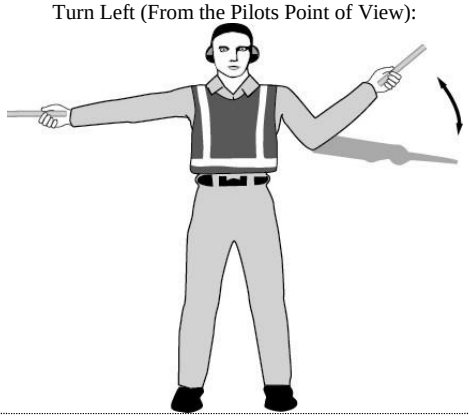
4.9.4 MARSHALLING HAND SIGNALS (FOR AIRCRAFT)

- Do not perform aircraft marshalling unless it is permitted by the local airport authority and Handling Staff have been trained and authorized.
- Give marshalling hand signals from a position forward of the aircraft while facing and within view of the pilot.
- Use illuminated torch lights/wands/batons to improve the visibility of the hand signals in the following situations:

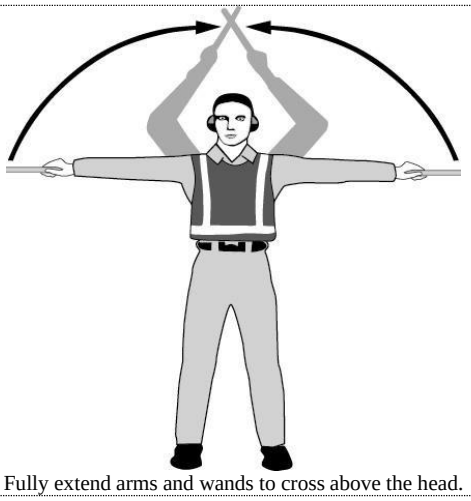
- Insufficient apron lighting;
- Poor visibility;
- Night conditions;
- When required by local Airport Authorities or regulations.

To avoid any possible confusion by the Flight Crew, do not use guide man hand signals for (GSE) equipment until all aircraft marshalling has been completed!

Notes:
The hand signals printed on the following pages are illustrated with the use of wands. The meaning of the signals remains the same when bats, gloves or illuminated torch lights are used.
It is not possible to give signals for engaging/releasing parking brakes with the use of bats/batons or illuminated torch lights.

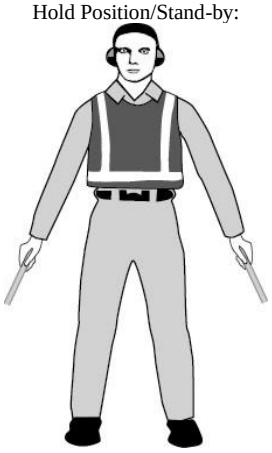
<table>
<tr>
<td>Identify Gate:
 
Raise fully extended arms straight above head with wands pointing up, move hands fore and aft to keep from blending into background.</td>
<td>Continue to Taxi Straight Ahead:
 
Bend extended arms at elbows and move wands up and down from waist to head.</td>
</tr>
<tr>
<td>Slow Down:
 
Move extended arms downwards in a “patting gesture”, moving wands up and down from waist to knees.</td>
<td>Turn Right (From the Pilots Point of View):
 
With left arm and wand extended at a 90° angle to the body, right hand makes the come ahead signal. The rate of signal motion indicates to the pilot the rate of aircraft movement desired.</td>
</tr>
<tr>
<td>Turn Left (From the Pilots Point of View):
  </td>
<td>Stop/Emergency Stop:</td>
</tr>
</table>

With right arm and wand extended at a 90° angle to the body, left hand makes the come ahead signal. The rate of signal motion indicates to the pilot the rate of aircraft movement desired.



Fully extend arms and wands to cross above the head.

Hold Position/Stand-by:

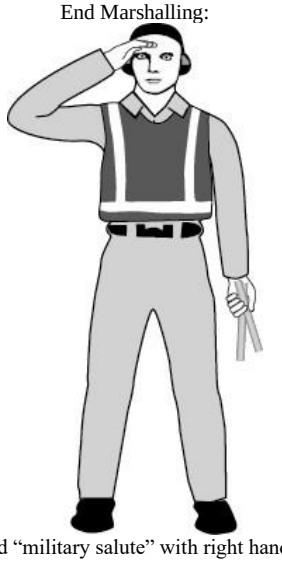


Fully extend arms and wands downwards at a 45° angle to the sides. Hold the position until the aircraft is clear for the next manoeuvre.

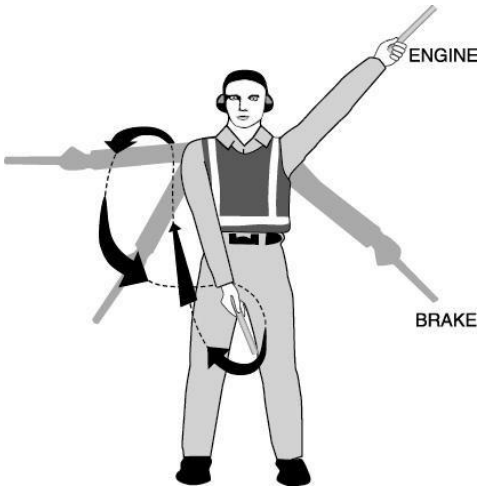
Proceed to Next Marshaller or as Directed by Tower/Ground Control:

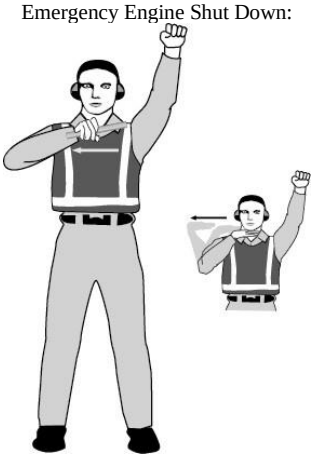
Point both arms upward, move and extend arms outward to side of body and point with wands to direction of next marshaller or taxi area

End Marshalling:



Perform a standard “military salute” with right hand and/or wand to dispatch the aircraft. Maintain eye contact with the flight crew until the aircraft has begun to taxi.



Set Brakes:  Raise hand just above shoulder height with open palm. Ensuring eye contact with the flight crew, close hand into a fist. DO NOT move until receipt of thumbs up acknowledgment from the flight crew.	Release Brakes:  Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with the flight crew, open palm. DO NOT move until receipt of thumbs up acknowledgment from the flight crew.
Chocks Inserted:  With arms and wands fully extended above head, move wands inward in a "jabbing" motion until the wands touch.	Chocks Removed:  With arms and wands fully extended above head, move wands outward in a "jabbing" motion. DO NOT remove chocks until authorized by the flight crew.
Start Engines  Raise right arm to head level with wand pointing up and start a circular motion with hand, at the same time with the left arm raised above head level point to aircraft.	Emergency Engine Shut Down:  Extend arm with wand forward of body at shoulder level, move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat.

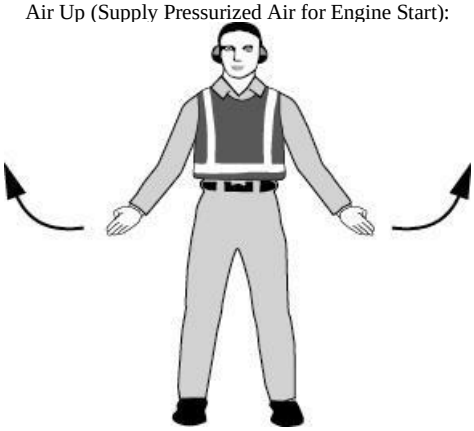
4.9.5 TECHNICAL/SERVICING HAND SIGNALS - GROUND STAFF TO FLIGHT CREW

- Only use manual signals when verbal communication is not possible.
- Make sure acknowledgement is received from the flight crew on all occasions.

Connect Tow-bar:

Bring arms above the head and grasp forearm with opposite hand.

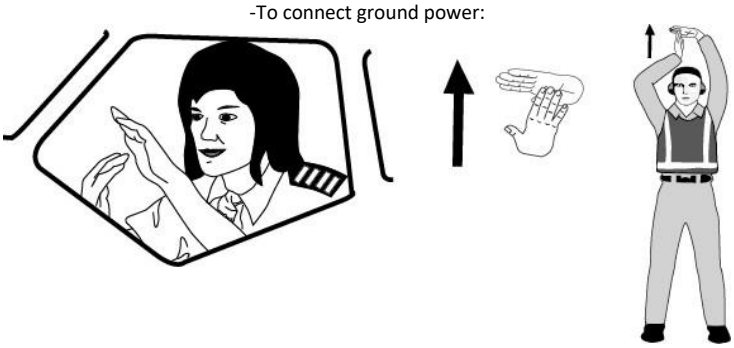
Air Up (Supply Pressurized Air for Engine Start):



Wave arms up & down from thigh to waist with palms up.

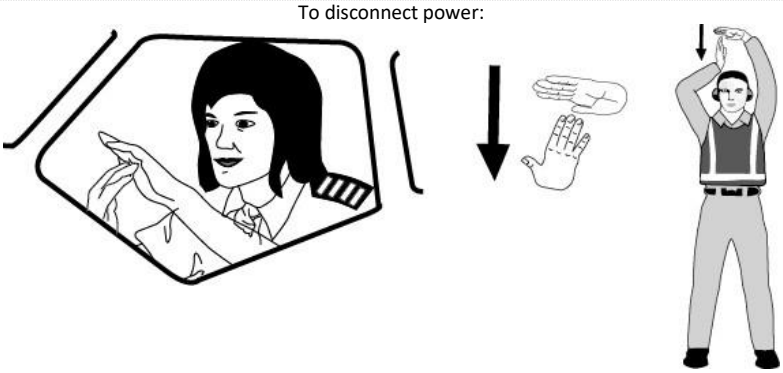
Connect/Disconnect Ground Power

-To connect ground power:



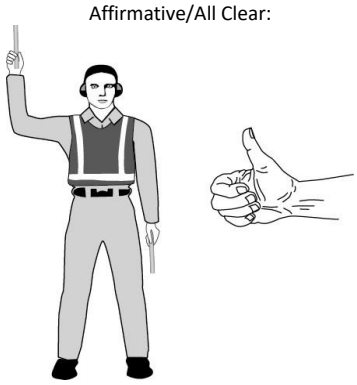
Hold arms fully extended above head, open left hand horizontally and move finger tips of right hand into and touch the open palm of left hand (forming a “T”). At night, illuminated wands can also be used to form the “T” above the head.

To disconnect power:



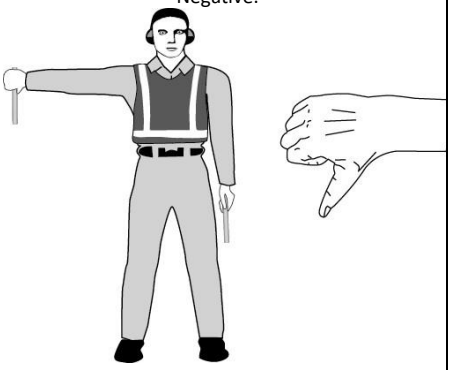
Hold arms fully extended above head with finger tips of right hand touching the open horizontal palm of the left hand (forming a “T”), then move right hand away from the left. DO NOT disconnect power until authorized by the flight crew. At night, illuminated wands can also be used to open the “T” above the head.

Affirmative/All Clear:



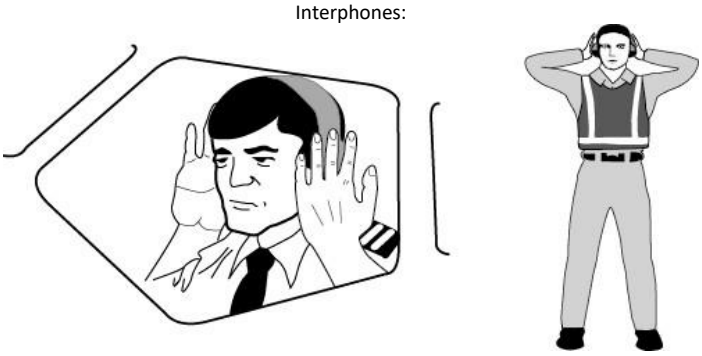
Raise right arm to head level with wand pointing up or display hand with thumbs up, left arm remains at side by knee.

Negative:



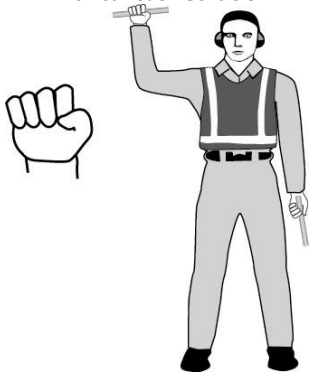
Hold right arm straight out at 90° from shoulder and point wand down to ground or display hand with thumbs down, left hand remains at side by knee.

Interphones:



Extend both arms at 90° from body and move hands to cup both ears.

Do not Touch Controls

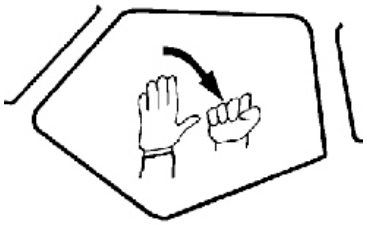
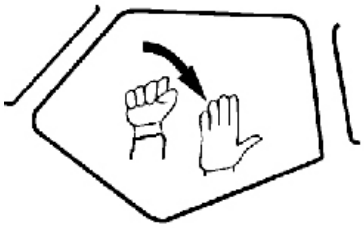
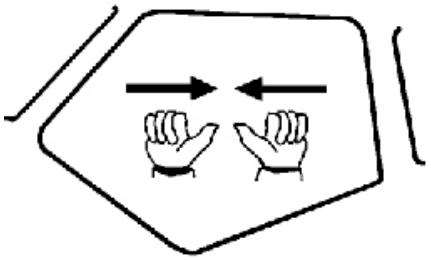
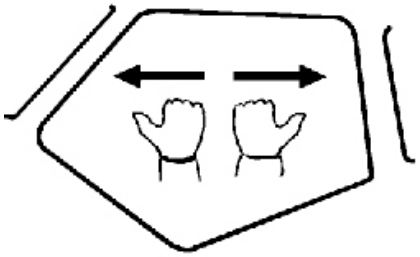
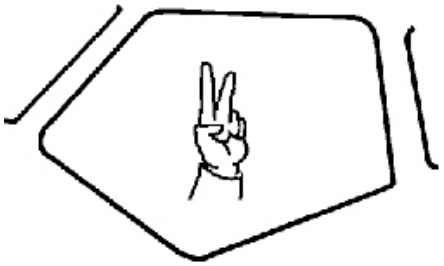
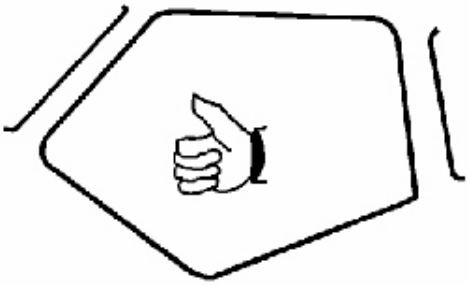


Raise right hand above head level and close fist or hold wand in horizontal position, left arm remains at side by knee.

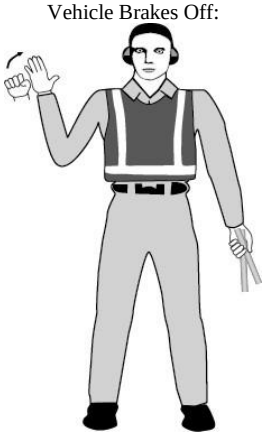
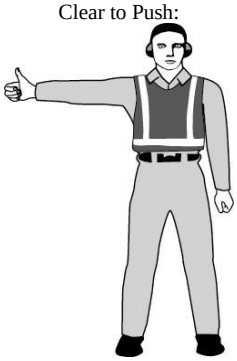
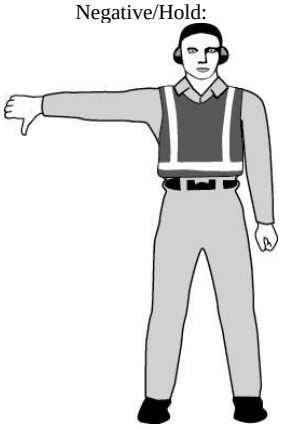
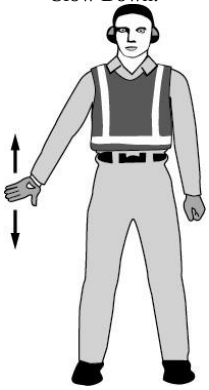
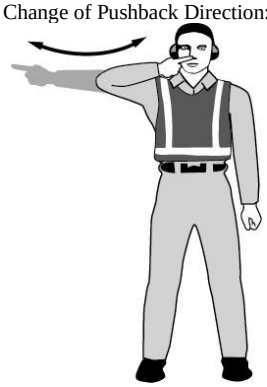
Open/Close Stairs Forward/Aft

With right arm at side and left arm raised above head at a 45° angle, move right arm in sweeping motion towards top of left shoulder.

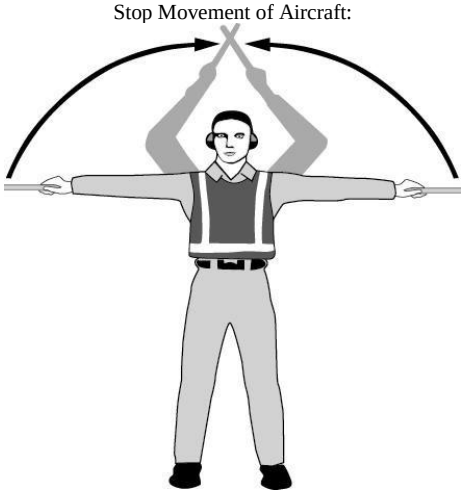
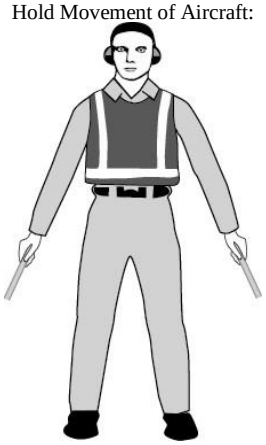
4.9.6 TECHNICAL/SERVICING HAND SIGNALS - FLIGHT CREW TO GROUND STAFF

Brakes Engaged:  Raised arm and hand, with fingers extended, horizontally in front of face. Hand is then closed to a fist.	Brakes Released:  Raised arm, with fist clenched, horizontally in front of face. Hand is then opened to an open palm.
Insert Wheel Chocks:  Arms extended, palms outwards, and hands moving inwards.	Remove Wheel Chocks:  Hands crossed in front of face, palms inwards, and arms moving outwards.
Ready to Start Engine(s):  One hand raised with the appropriate number of fingers stretched indicating the number of the engine to be started.	All Clear:  Acknowledgement of all ground actions.

4.9.7 PUSHBACK HAND SIGNALS - HEADSET OPERATOR TO TUG DRIVER

Vehicle Brakes Off:  Raise hand just above shoulder height with closed fist and ensuring eye contact with tug driver open palm.	Clear to Push:  Hold arm straight out at a 90° angle from the shoulder and display hand with thumb up. This indicates to the tug driver that all equipment is clear of the aircraft, the chocks have been removed, the aircraft brakes are off and the flight crew has given clearance to commence pushback.
Negative/Hold:  Hold arm straight out at 90° angle from the shoulder and display hand with thumb down. This indicates to the tug driver that the aircraft is not ready for pushback and to hold position.	Vehicle Brakes On/Stop:  Raise hand just above shoulder height with open palm and ensuring eye contact with tug driver close into a fist. At the end of the pushback also indicates to tug driver that aircraft brakes have been set. Tug driver should return the signal to the headset operator to confirm vehicle brakes set.
Slow Down:  With hand at a 45° angle downward to the side make a “patting” motion.	Change of Pushback Direction:  Touch nose with finger and with arm at a 90° angle to the shoulder, point in the direction that the aircraft needs to be turned to.

4.9.8 PUSHBACK HAND SIGNALS – WING-WALKER TO HEADSET OPERATOR / TUG DRIVER

Clear to Move Aircraft:  Raise one fully extended arm with wand straight above head and with the other arm and wand at a 45° angle downward to the side. Stop Movement.	Stop Movement of Aircraft:  Fully extend arms and wands to cross above the head.
Hold Movement of Aircraft:  Fully extend arms and wands downwards at a 45° angle to the sides. Hold this position until it is clear for the aircraft to move.	

4.10 AIRCRAFT ARRIVAL

4.10.1 ACTIONS PRIOR TO ARRIVAL

- Conduct FOD check on entire stand removing all debris. (See also: "GOM 4.15" and "GOM 5.5.2")
- Make sure the stand surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement.
- Make sure the aircraft path and ramp area are free of objects and obstacles which the aircraft may strike or endanger others, e.g. due to jet blast effects.
- Make sure all Ground Support Equipment (GSE) is positioned well clear of the aircraft path, outside the Equipment Restraint Area (ERA).
- Make sure aircraft docking guidance system is operating, or marshalling staff is present.
- Make sure additional ground personnel (such as wing walkers) are present (if required).
- To ensure that at night or when necessary all vehicles waiting in the proximity of the arriving aircraft are positioned so that the headlights will not dazzle/blind the flight deck crew. The vehicle lights must be in the dipped position.

DANGER	All persons not involved in the aircraft arrival operation must stay well clear of the arriving aircraft and must not approach the aircraft until: • The engines have been switched off and are spooling down. • The anti-collision lights have been switched off, and • The main gear wheel chocks are positioned. • Clearance to approach the aircraft has been given by the agent responsible for the arrival operation, if applicable.

Prior to the arrival of the aircraft, the following equipment must be serviceable and available on the stand:

- Chocks (as required by aircraft type),
- 4 Safety Cones (or 6 or more, as required by aircraft type or particular situation),
- Ground power (as required),
- Headset interphone (if applicable),
- Day or night wands (whichever is applicable).

4.10.2 STANDARD ARRIVAL PROCEDURE

4.10.2.1 AIRCRAFT ARRIVAL AT A STAND OR OPEN RAMP

FBO/GSP handling staff and other personnel working around aircraft are exposed to a high level of risk and must always be alert. Personnel and equipment are forbidden to stand in the path of an oncoming aircraft unless their duty requires the marshalling of that aircraft.

Note: General Marshalling Requirements - Hyperion Aviation will only allow suitably trained and approved personnel to perform aircraft marshalling.

For a standard arrival procedure at a stand without an automated guide-in system or at an open ramp:

- As aircraft approaches the stand area, the marshaller points to the guide-in line on the ramp to be followed by the aircraft by standing at the top of the guide-in line and giving the “IDENTIFY STAND” signal.
- While the aircraft taxies along the guide-in line, the marshaller gives the “Continue to Taxi ahead” signal with marshalling wands.
- The nose wheel should follow the lead-in line all the way to the appropriate stop point. Use the “Turn Left” or “Turn Right” signals to correct the track of the aircraft as required.
- As the aircraft approaches the stop position, use the “Slow Down” signal if required. As the nose wheel reaches the stop point slowly cross the wands in the “Stop” signal.
- Once the aircraft has come to a complete stop and all conditions for chocking are met, the aircraft can be chocked.
- Ground power is connected (if required/available).
- If at any time during aircraft movement you are unsure or identify an imminent danger, STOP the aircraft!

DANGER	A suitably qualified member of the Ground Crew must be at the head of the stand to monitor the arrival of the inbound aircraft. If the safety of the aircraft or personnel is threatened the FBO/GSP Handling Staff will immediately STOP the aircraft using the recognised IATA emergency stop hand signal.

4.10.2.2 ACTIONS AFTER ARRIVAL

Upon aircraft stopping:

- Position wheel chocks at nose landing gear wheels.
- Position and connect the Ground Power Unit, if required, before engine shut down.

DANGER	The only other arrival activity permitted while the anti-collision beacon is on is the provision of ground power where required.

After engines have been switched off, are spooling down and anti-collision lights have been switched off:

- Position wheel chocks at the main landing gear wheels and confirm to flight crew.

- Position the passenger boarding device (if required) after confirming there is no damage on the cabin door area of the aircraft.
- Position the safety cones.
- Conduct an arrival walk-around to inspect for damage on the following parts of the aircraft:
- All cargo doors.
- All access panels and servicing access points.
- Aircraft fuselage.
- Aircraft engine cowlings (when under-wing).
- Aircraft passenger doors.
- Give clearance for GSE to approach aircraft.
- Remove nose gear chocks (temporary placement only).

	If any damage is found, report it immediately to supervisor and do not approach the aircraft with any GSE in the area where the damage has been found.
	If an aircraft arrives with an unserviceable anti-collision light, do not approach the aircraft until headset communication has been established with the flight crew.

Note: The respective Hyperion Aviation OCC must be notified, and a report compiled, detailing the exact nature, location, and dimensions of the damage. Any evidence (e.g. witness paint marks) should also be recorded, and photographs taken wherever possible. A Ground Safety Report should be raised.

4.10.2.3 PASSENGER RECEPTION AT AIRCRAFT

Passengers should be met at the bottom of the aircraft steps by the FBO/GSP Handling Staff escort and directed or led to the Terminal/GAT/FBO/Lounge entrance. The route to the terminal must be unambiguous and agents are not to leave behind any slow walkers or other passengers requiring assistance, who may stray into danger areas on the stand.

Once the first passengers are led into the terminal the FBO/GSP Handling Staff escort should return to the aircraft side to ensure all passengers have left the aircraft.

4.10.3 GROUND SUPPORT EQUIPMENT ON ARRIVING AIRCRAFT

4.10.3.1 GROUND POWER UNIT (GPU)

When positioning the GPU ensure a safe path of entry/exit is to be maintained at all times. This means that where a GPU access point is located near to jet influx areas the cable must be laid as near to the fuselage as possible avoiding all danger areas.

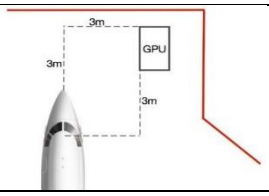
Positioning a GPU to a 'dead' aircraft is easy but removing a badly positioned GPU from an aircraft with engines running is dangerous and must not be attempted under any circumstances.

4.10.3.2 GPU CONNECTION INSTRUCTIONS

- It is permitted to pre-position a GPU inside the ERA provided there is an assigned GPU parking position.
- Position the GPU on the right-hand side of the nose parallel to the aircraft centre line with the tow-bar facing away from the aircraft as shown below (observe minimum distances to be respected).
- Set parking brake/chock the GPU.
- Establish communication with the flight deck crew before attaching GPU.
- Handling Staff must check that the GPU is switched to standby before connection to the aircraft.
- Hold the lead by the connector head which is normally made of thick rubber.
- Check leads for abrasions or cuts before connection. Leads with the inner coil leads exposed must not be used under any circumstances.
- Switch GPU to 'Excite' when power is required.

- GPU leads should be positioned as close to the fuselage as possible and the GPU positioned so that it is clear of the arc of the aircraft nose and should be towed off forward of the nose.

The FBO/GSP Handling Staff member in charge of a departure must satisfy himself that the GPU is in an accessible position and that there is a safe entry/exit path before giving start up approval. On departure the GPU must be switched to idle before disconnection. All leads must be stowed.

Proper GPU Positioning.	

	Switch OFF power and unplug before removing the GPU.

4.10.3.2.1 GPU DISCONNECTION INSTRUCTIONS

When cleared to do so by the Flight Crew, FBO/GSP Handling Staff operating the GPU will indicate removal of the GPU by using the appropriate hand signal. (See: "GOM 4.8")

FBO/GSP Handling Staff operating the GPU should then:

- Turn the GPU to idle using the appropriate switch. (Not the 'Emergency Stop' for routine shut-downs.)
- Disconnect the GPU lead by grasping the head and pulling downwards.
- Stow the cable in the appropriate bay on the GPU.
- Do not remove the lead whilst the GPU is generating power.
- Do not grasp the lead whilst disconnecting.
- Do not allow the lead to drag along the ground.

The FBO/GSP Headset Operative in charge of a departure must satisfy himself that the GPU is in an accessible position and that there is a safe exit path before giving start up approval. GPU leads must not be allowed to drag along the ground, as this will cause abrasions to the safety cover of the cable with potentially lethal consequences for subsequent users.

4.11 AIRCRAFT DOORS

	Hyperion Aviation crew will communicate upon aircraft arrival at a station whether FBO/GSP Handling Staff is required and/or allowed to enter the aircraft. Only FBO/GSP Handling Staff cleared and required to enter the Hyperion Aviation aircraft will be allowed entry in order for them to complete their task(s).

- Do not operate ANY aircraft doors unless you have been trained and authorized to do so.
- Seek assistance from Flight Crew or maintenance personnel if any difficulty is experienced during normal door operation.

	Do not operate or leave doors open in winds exceeding those indicated in the manufacturer's limitations. See also "GOM 4.6.3" and "GOM 4.6.4".

4.11.1 CABIN ACCESS DOORS

Note 1: reference: IATA AHM462
Note 2: see also specific aircraft cabin door information in the respective aircraft's Annex.

4.11.1.1 GENERAL

Only flight crew opens/closes aircraft cabin doors! FBO/GSP Handling Staff will never be required to assist in door opening/closing actions in normal operating conditions.

- Cabin access doors shall only be in open position if there is an appropriate boarding device positioned at the door. Cabin access doors may not be opened without appropriate equipment positioned at the door.
- There is a risk of falling while operating cabin doors.
- Slide deployments can be fatal. If an armed door begins to open, do not attempt to hold the door, as you risk being seriously injured or killed.

If a cabin access door is found open without a boarding device positioned at the door you must immediately notify a supervisor, the flight's Commander or the respective Hyperion Aviation OCC.

- Do not attempt to close the cabin access door unless trained and qualified.
- Guard the cabin access door until a qualified person is present to close it.

4.11.1.2 OPENING CABIN ACCESS DOORS

This section provides generic safety precautions and does not constitute training on opening/closing of aircraft doors.

4.11.1.2.1 OPENING OF CABIN ACCESS DOORS FROM INSIDE BY TRAINED CREW

FBO/GSP Handling Staff:

- Knock twice on the door from outside to indicate that a boarding device is properly positioned outside a door to be opened and that the door swing area is free of obstructions.
- Stand clear of the door and wait for the crew to open the door.
- (As applicable and if requested) Assist crew with moving (not opening) the door to the fully opened position and engaging the gust lock as necessary.

4.11.1.2.2 OPENING OF CABIN ACCESS DOORS FROM INSIDE BY AUTHORIZED & TRAINED GROUND STAFF

- Check that the door is disarmed.
- Check that all indicators show that it is safe to open the door.
- Check visually that a boarding device is positioned at the door. (When required)
- Wait for the crew to open the door slowly and carefully in accordance with the instructions and markings labelled on the door.

Note: Should there be a need to partially open a door solely for the purpose of galley trash bin servicing, an external boarding device need not be in position. Do not move the door more than is required for the removal and refit of the bin. Check GOM for specific aircraft instructions, if any.

4.11.1.2.3 "RESERVED FOR FUTURE USE"

4.11.1.2.4 OPENING CABIN ACCESS DOORS FROM OUTSIDE WITH NO CREW/GROUND STAFF ON BOARD

- Look for indications that the door is disarmed.
- Check that all indicators show that it is safe to open the door.
- If you cannot confirm that the door is disarmed, DO NOT OPEN THE DOOR.
- Once you confirm that the door is disarmed, then open the door slowly and carefully in accordance with the instructions and markings labelled on the door, and the respective aircraft type specific instructions.
- If integral air-stairs (other than those permanently affixed to a boarding door) are to be used, then slightly open the door (ajar) until the air-stairs are fully extended.
- Move the door to the fully opened position and engage the gust lock.

4.11.1.3 EMBARKATION OR DISEMBARKATION THROUGH CABIN ACCESS DOORS

Before allowing passengers or crew embarkation or disembarkation via a cabin access door, ensure that the boarding device is properly positioned at the door, and if stairs or integral air-stairs are to be used, that both guard rails (if applicable) are extended.

4.11.1.4 CABIN ACCESS DOORS & HANDRAILS

It is a Hyperion Aviation requirement that all personnel entering and exiting company aircraft must hold the handrail. If for any reason a person needing to gain access to or exit from our aircraft without being able to hold the handrail (e.g. Caterers or Engineers with large objects) then the requirement must be risk assessed and deemed safe/acceptable in advance by the relevant department.

It is a requirement to hold handrails when entering or exiting the aircraft, it provides extra stability and will reduce falling or slipping risk.

4.11.1.5 CLOSING CABIN ACCESS DOORS

Note: reference: IATA AHM462, IATA AHM1110

- Make sure service doors are closed immediately after servicing is completed.
- Receive confirmation from the crew that the cabin access door(s) may be closed for departure.
- Before removing the last boarding device from an aircraft, inform any ground staff on-board the aircraft that the last cabin access door is being closed and the last boarding device is being removed from the aircraft.
- Look for any possible obstructions around the door area and remove them.
- Make sure the door gust lock is released and assist the person closing the door by moving it to the ajar position.

If the cabin access door cannot be closed with the boarding device connected, then the operation must be performed from inside the aircraft with extra vigilance and without assistance of ground staff outside the aircraft.

- Do not remove the boarding device from the aircraft until the door is fully closed and locked.
- If stairs were used at a cabin access door, then retract the stair handrails if necessary, to close the door. Remain at the top of the stair platform until the door is fully closed, and then descend the stairs before they are moved.
- Close the door slowly and carefully in accordance with the instructions and markings labelled on the door, and the respective aircraft type specific instructions.
- Before leaving the vicinity of the door, confirm that the door is properly seated flush with the surrounding airframe and that the exterior door handle is flush with the surface of the door.
- Seek assistance from aircraft maintenance personnel any time a door malfunction occurs.
- Do not retract equipment stabilizers in advance of the cabin door being fully closed.
- Before retracting equipment from the door, check to ensure the manoeuvring area is clear of all obstructions and personnel.
- If a passenger boarding stairs unit is used, then retract the passenger stairs canopy. Move the equipment to its approved parking position and engage any applicable restraints (such as closing the door on the passenger boarding stairs opening).
- Make sure that the cabin access door and the surrounding doorframe and panels show no visible signs of damage.
- If damage is discovered during inspection of the cabin access door or frame, then immediately report it to aircraft maintenance personnel, and if available, the Commander.

4.11.1.6 RE-OPENING CABIN ACCESS DOORS

Note: reference: IATA AHM462, IATA AHM1110

If a cabin access door is not closed properly then it must be re-opened and re-closed. Other situations when cabin access doors may need to be re-opened include the following:

- Subsequent delivery of catering and/or supplies, after the passenger boarding devices have been removed,

OR

- Re-connecting of passenger boarding devices after the initial removal.
- If there is no crew on board the aircraft, follow the applicable Opening Cabin Access Doors procedures in “GOM 4.11.1.2.4”.
- Once the cabin access door has been closed in preparation for departure, do not attempt to re-open any aircraft door without the authorization of the flight crew.
- If you believe a door must be re-opened, you must notify the flight crew through an open cockpit window or use the flight interphone system.
- If the crew requires a door to be re-opened, they will notify ground staff.
- Regardless of which party requested that the door be re-opened, once the flight crew gives clearance for the door to be reopened, follow the actions/steps in: "GOM 4.11.1.2".
- If authorization to re-open the door is not granted, do not attempt to re-open the door unless clearance given by the flight crew.

4.11.2 CARGO HOLD DOORS

Note 1: reference: IATA AHM462
Note 2: see also specific aircraft cabin door information in the respective aircraft’s Annex.

4.11.2.1 OPENING CARGO HOLD DOORS

- Do not operate cargo doors unless trained and authorized.
- Manual operation of an electrically or hydraulically operated cargo door (when installed/present) may only be performed by maintenance personnel or Flight Crew.
- Do not open the cargo doors until the aircraft engines have been shut down and the anti-collision lights have been switched off.
- Before positioning loading equipment or any other ground support equipment at cargo doors and opening cargo doors, perform a visual check for any signs of damage to the doors or surrounding areas.
- If any irregularities are discovered during this visual check, report them to aircraft maintenance personnel and, if available, the Commander.
- Cargo doors must be opened using technical steps or belt loaders equipped with raised safety rails to reach the cargo doors.
- Open the cargo doors in accordance with the respective aircraft type specific instructions.
- Allow adequate space for door clearance to avoid equipment obstructing the free passage of the door.
- Most aircraft lower compartment cargo doors hinge upwards. Be aware that when opening or closing cargo doors, the lower edge of the door will swing down before going upward.
- If the cargo door will not open, do not use excessive force, tools or ground support equipment to push or pull on the door to open it. Contact aircraft maintenance personnel for assistance.

4.11.2.2 CLOSING CARGO HOLD DOORS

- Do not operate cargo doors unless you have first been trained and authorized.
- Manual operation of an electrically or hydraulically operated cargo door may only be performed by maintenance personnel or flight crew:
- before closing the cargo doors, ensure: that load restraint and door protection nets, when available, are properly fitted;
- that the cargo compartment lights have been switched off unless required for carriage of AVI;
- that the door area including the door sill and frame are free of gravel, water, ice and other foreign substances or obstructions;
- that the door and door frame show no visible signs of damage;
- that any damage discovered during the inspection of the cargo doors and surrounding areas/frames is immediately reported to aircraft maintenance personnel and the Commander.
- All cargo doors must be closed using technical steps or belt loaders equipped with raised safety rails to reach he cargo doors.

- Check that door lock indicators are engaged/properly set as applicable and that the door is properly locked, handles are stowed flush and panels are properly closed.
- If a cargo compartment door is not closed properly, it must be re-opened and re-closed.

If a cargo door must be re-opened prior to aircraft movement, approval from the flight crew via the ground staff responsible for the departure must be obtained.

4.11.2.3 RE-OPENING OF CARGO HOLD DOORS

- If a cargo compartment door is not closed properly, it must be re-opened and re-closed.
- Once the pre-departure walk-around has taken place, do not attempt to re-open any aircraft door without the authorization of the flight crew.
- If you believe a door must be re-opened, you must notify the flight crew through an open cockpit window or use the flight interphone system.
- If the flight crew requires a door to be re-opened, they will notify ground staff.
- Regardless of which party requested that the door be re-opened, if the flight crew gives clearance for the door to be reopened, follow the actions/steps in: "GOM 4.10.1.2".
- If authorization to re-open the door is not granted, do not attempt to re-open the door unless clearance is received from the flight crew.

4.12 AIRCRAFT LOADING

Note: reference: IATA AHM311, AHM1110, IATA DGR

4.12.1 SUPERVISION OF AIRCRAFT LOADING

4.12.1.1 GENERAL

Before loading, the hold shall be visually inspected for damage that can affect the load capacity. A qualified individual must supervise the loading of the aircraft and provide a signed confirmation to say:

- The aircraft has been loaded as instructed–including any special load instructions;
- Special loads, including dangerous goods have been stowed and secured according to regulations and operating airline procedures;
- The holds are free of any foreign objects;
- Any deviations are noted.

4.12.1.2 LOADING OF GENERAL BAGGAGE/CARGO

The person responsible for loading is in charge of, and responsible for, the safe and efficient loading and offloading of the aircraft as well as the protection of the goods carried. He will ensure the aircraft is loaded as specified by the load agent, in accordance with the operating airline procedures.

- The person responsible for loading shall be trained in accordance to the standards outlined in IATA AHM1110.

4.12.1.3 LOADING OF DANGEROUS GOODS (WHEN CARRIED)

Hyperion isn't allowed to carry Dangerous Goods.
The person responsible for loading is responsible for the loading of Dangerous Goods shipments as described in the IATA DGR Manual and must be qualified as per IATA Dangerous Goods Regulations training requirements.

4.12.2 SAFETY REQUIREMENTS SPECIFIC TO AIRCRAFT LOADING OPERATIONS

4.12.2.1 GENERAL

- Get assistance when moving heavy articles.

- Do not use baggage carts to gain access to cargo compartments.
- Protect live shipments from inclement weather.
- Be alert for special/dangerous goods shipments. Know how they must be handled and secured.
- Operators of equipment shall ensure that other personnel are not entrapped by movement of load either in the aircraft or on the loading equipment.
- Stabilisers, when fitted on equipment, must be deployed.
- Gates of loaded carts should be lowered carefully, in case loose cargo falls out and causes injury.
- Holds and compartments shall only be entered or exited by using the appropriate elevating device and which has been positioned and secured, e.g. belt conveyor.
- Do not walk between carts being towed, or when they are stationary on the ramp.
- When loading has been completed, move all loading equipment well clear of the aircraft.

4.12.2.2 SPECIAL PRECAUTIONS WHEN USING CARTS

- Do not wedge light packages between heavier items.
- Do not overload.
- During transportation in carts, ensure that the load/baggage is properly secured by using appropriate locks, stops, rails, curtains and straps.
- Ensure the overall height of load permits safe lifting of each piece of load during loading and offloading of carts by personnel standing on the ground.
- When using tarpaulins, ensure all straps are securely fastened to the baggage cart.
- When not in use the braking system shall be engaged on all strings of baggage carts.

4.12.2.3 SPECIAL PRECAUTIONS WHEN USING BELT LOADERS

- Ensure proper separation between articles on the conveyor belt to avoid jamming.
- Adjust the back of the conveyor belt correctly to avoid dropping goods from the belt.
- Handrails shall be deployed when a belt loader is used to gain access to aircraft cargo holds; however, caution shall be exercised where there is restricted clearance with the aircraft fuselage or engines.

4.12.2.4 BULK LOADING OF SMALLER AIRCRAFT

- Use belt loaders if the door sill height does not allow items to be passed into the doorway without undue lifting Always consider the use of belt loaders for heavy items (over 23kgs).
- Keep a gap of at least 1 meter (3ft) between baggage carts/dollies and the cargo belt when towing, to prevent collisions when approaching the belt loader.
- Carts must be disconnected from the tractor and manoeuvred by hand if the carts need to be closer than 1 meter (3ft).

4.12.3 GENERAL LOADING PRECAUTIONS

- Hold baggage must be inspected for signs of leakage before loading.
- Any item of load, which is not properly packed, and any item that may damage or contaminate the aircraft must not be loaded.
- Use tarpaulins or covered carts during inclement weather.
- Do not place goods directly on the apron.
- Always observe the specific instruction labels, when used, and marks such as “FRAGILE”, “TOP”, “THIS SIDE UP”, etc.
- Report torn (or missing) baggage tags and cargo labels, and do not load unless corrected.
- Report immediately any damage to the load, whether it occurs during handling or is noticed on arrival.

- Report immediately any spills, unusual fumes or smells, etc., to a Supervisor, Flight Crew or local authorities as required.

4.12.4 SPILLS IN BAGGAGE HOLDS

- Spills can occur in holds during loading and in flight due to:
- Improper packaging.
- Damage due to mishandling prior to loading.
- Improper loading in the compartment.
- Spills can be liquid, gels, or material in a powdered or granulated form.
- Spills can be hazardous corrosive, flammable, explosive, toxic or poisonous, etc. Even water can cause serious damage to electrical components and systems.
- Spills can be corrosive to the aircraft structure. Mercury spills are particularly corrosive to the extent that the affected aircraft structure may have to be completely replaced if not cleaned up quickly.

It is essential that any spill is reported immediately to Hyperion Aviation's Maintenance department, so that corrective action can be taken.

4.12.5 BAGGAGE HOLD INSPECTION

When an offload is completed, a final check of ALL cargo holds must be conducted to inspect each hold for:

- Damage to the compartment.
- Damaged or malfunctioning floor attachment points (when installed).
- Spills in the hold that may have occurred.
- Baggage or cargo that may have been left on-board the aircraft.
- Any other items that should not be present in the hold.

A check must be conducted in a hold even if on arrival the hold was reported as not carrying any cargo/baggage (empty). If any damage is found to the compartment or locks, if a spill has occurred, or if any other irregularity is found, it must be immediately reported to a supervisor, the flight crew, and/or a company representative.

4.12.5.1 BAGGAGE HOLD DAMAGE

Any damage to the structure or linings of baggage holds may lead to specific loading limitations. Therefore, any damage must be reported. The FBO/GSP supervisor, the Flight Crew/Commander, and/or the respective Hyperion Aviation Maintenance department shall be informed accordingly.

4.12.6 ADVANCE LOADING PREPARATION

Before loading commences, the load shall be assembled and checked against loading instructions.

- Ensure all load is inspected and is fit to be loaded on the aircraft.

4.12.7 AIRCRAFT GROUND STABILITY

Loading or offloading may cause the aircraft to become unstable or could cause the aircraft to tip. Respect aircraft ground stability requirements during loading and offloading.

In general:

- offload aft holds before forward holds
- when loading, load forward holds before aft holds.

4.12.7.1 BALLAST – FERRY FLIGHTS

Note: reference: IATA AHM537

Ballast must only be loaded when directed by the respective Hyperion Aviation OCC and the operating Flight Deck Crew.

- Ballast bags must comply with IATA AHM537,
- At time of loading Ballast bags must be in good condition,
- Ballast weight figures must be passed on to the flight crew for weight & balance purposes.
- All loading must be shown on the load sheet.

4.12.8 OFFLOADING PROCEDURE

4.12.8.1 (RESERVED FOR FUTURE USE)

4.12.8.2 IDENTIFYING SHIPMENTS REQUIRING SPECIFIC HANDLING

Comply with any special handling requirements:

- Make sure that packages with directional handling labels are kept in the correct orientation (this way up, etc.).
- Take great care with fragile items.

4.12.8.3 SAFETY PRECAUTIONS FOR OFFLOAD

- Take care when handling heavy items. Use proper lifting techniques and ask for assistance if required.
- Take care when placing items on belt loaders. Make sure they are stable and will not fall off.
- Take care if load has shifted during flight.

4.12.9 LOADING PROCEDURE

Before loading commences, verify the aircraft registration with the registration on the loading instruction report.

- Ensure on-load has been checked, weights must be cross-checked.
- Ensure special equipment (e.g. tie down straps) is available, as required.
- Ensure that loading instructions by the flight crew are understood by loading crew.

Before loading commences:

- Carry out inspection of cargo compartments and restraint system.
- Report any defects to supervisor, the flight crew, and/or the respective Hyperion Aviation OCC.
- For cargo shipments, ensure the nets or tie down straps are tight and the load is secure.
- Items with directional handling labels should be loaded so that the labels will be visible during offload.
- Ensure separator nets, fire barriers, door nets are installed and locked as required as the hold is loaded.
- Keep count of bulk-loaded baggage by compartment and destination.
- Document all changes to the load.
- Carry out load verification prior to transmitting weight and balance information to flight crew.

4.12.10 LIVE ANIMALS

Note: reference: IATA LAR

The transportation of animals (dogs) in the cabin is authorised up to a weight of 35kgs/78lbs on the following conditions:

- the weight of the dog shall never exceed 35kgs,
- the dog shall be leashed with a leash
- access of the dog to the cockpit shall be prevented in all phases of flight,
- during critical phases of flight and any time the commander orders it, the dog shall be restrained in a passenger seat, leash securely attached to the (closed) seatbelt,
- the dog will never obstruct any emergency exit, nor occupy a seat in front of an emergency exit,
- the commander will never accept on board, a dog showing aggressive or anxious behaviour,
- if needed the dog will be muzzled.

4.12.11 WET CARGO

4.12.11.1 LOADING

The Loading Supervisor must check if:

- The wet cargo is properly packed and free of leakage.
- The aircraft floor is properly protected from risk of spillage.

4.12.12 TIE-DOWN

Loose load is usually restrained by separation nets between sections or door protection nets. Nevertheless, certain type of loads must always be tied-down.

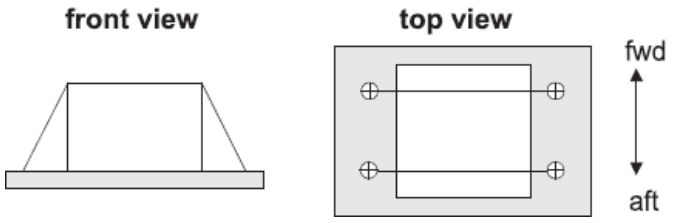
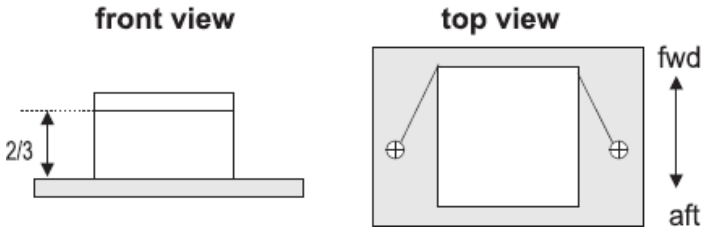
The following is an example of items which must always be tied-down:

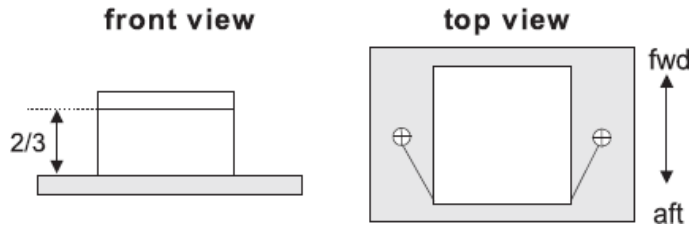
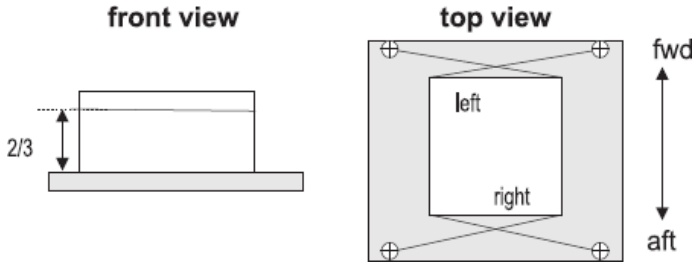
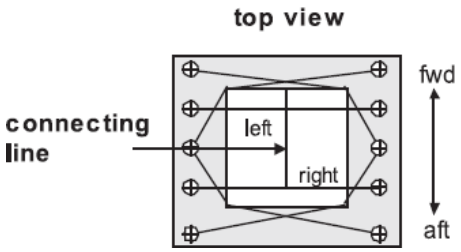
- All high-density packages (sharp angles, steel extrusions, metallic trunks, etc.).
- All high-density packages (sharp angles, steel extrusions, metallic trunks, etc.).
- Power driven wheelchairs (bulk compartment).

4.12.12.1 GENERAL RULES

The following must be considered when applying tie-down of cargo. The total tie-down must ensure restraint in at least the following directions:

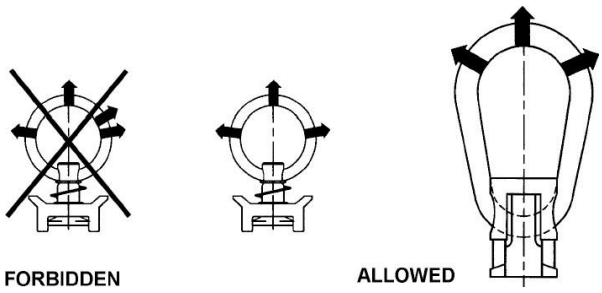
- Upward,
- Forward and Aft,
- Sideward.

Direction	Schematic
Upward:	
Forward and rear:	

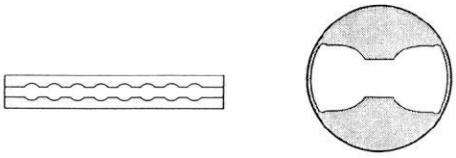
Rearward	
Sideward	
Completed Tie-Down	

4.12.12.2 TIE DOWN FITTINGS

A single tie-down fitting may receive up to 3 straps/ropes in three different restraint directions (one up and two opposite horizontal directions). Forces generated by the load can never act in more than one direction at the same time, and thus the fitting will never be pulled by more than one strap/rope at the same time. Therefore, a fitting may never receive more than one strap/rope in the same direction.



4.12.12.3 TIE-DOWN EQUIPMENT

Type	Schematic
Track and Anchor Plate.	

1-stud and 2-stud Fittings.	
Tie-down Rope.	

CAUTION	Tie-down on any other part of the aircraft structure, or on other restraints than those above, even if equipped with rings or tie-down points, is forbidden.

4.12.13 LOAD SPREADING

When the weight of item(s) to be loaded exceeds the maximum floor load per square metre or the maximum floor load per running metre of a compartment, the weight has to be spread to prevent damage to the compartment floor. This applies to HEAs (heavy load), but may also apply to smaller items weighing less than 150kg.

CAUTION	Overloading can cause damage to aircraft frames and ribs and consequently can have serious implications for the safety of the aircraft.

The weight can be spread by making use of spreading wood, in which case:

- The surface to support the weight will be enlarged.
- The length will be enlarged.

The Flight Crew will advise the spreading requirements for each item.

Type	Schematic
Example: Load spreading, using spreading wood.	

4.13 AIRCRAFT DEPARTURE

4.13.1 INTRODUCTION

A departure is normally conducted with a dialogue between flight crew and Handling Staff in charge of the departure via an interphone. This procedure ensures the highest level of safety during departures based on a precise exchange of information. The FBO/GSP Handling Agent in charge of the departure operation remains in continuous contact with the flight crew and is responsible for the ground manoeuvre. The scope of this departure procedure is limited to conventional tow bar and tow bar less pushback operation.

Note: The term “headset” also applies where an interphone system is used.

4.13.1.1 GENERAL COMMUNICATION REQUIREMENTS

Hyperion Aviation require the use of headset communication for all engine-start and pushback procedures.

- All headset communication must be conducted in English.
- When headset communication is not available or language is likely to create a problem, standard IATA hand signals must be used.
- When practical, headset personnel should remain in full view of the Commander and tug driver during pushback in case a breakdown occurs with the interphone system.

4.13.2 WHEEL CHOCK REMOVAL

- Headset Operator:
  - Via the interphone, request chock removal approval from the flight crew, and confirm the aircraft parking brakes are set.
  - Check all GSE have been disconnected from the aircraft.
  - Check the passenger boarding stairs have been retracted from the aircraft, if applicable.
  - Check the tow tractor and tow bar are fully secured to the nose gear and parking brakes are set on the tractor, if applicable.
  - For tow bar less operation, check that equipment is fully secured to the applicable landing gear and parking brakes are set on the tractor, if applicable:
    - remove chocks at applicable gear only and leave remaining chocks in place until departure;
    - nose gear chocks may be removed without notification for the purpose of tractor connection provided the main gear wheel chocks are still positioned (except for main gear tow bar less tractor).
- Give clearance to ground staff to remove chocks.
- Note: if a chock is stuck, the responsible personnel remove it by tapping it with a spare chock or moving the aircraft after the aircraft brakes have been released.
- Relay “Chocks Removed” hand signal to the flight crew, and ensure the flight crew repeats “Chocks Removed” hand signal as confirmation.

Responsible personnel stow chocks in their designated stowage place.

Note: nose gear wheel chocks may be removed without notification provided the main gear wheel chocks are still positioned. Once high wind or icy conditions have passed, any additional wheel chocks that were added to the aircraft may be removed so that chock placement reverts to that for normal operations.
If hand signals are used (i.e. aircraft interphone system is inoperative) the person performing the hand signal must:

- be in continuous visual communication with the flight crew throughout the pushback,
- display the "Set Brakes" hand signal;
- receive confirmation from the flight crew when they display the "Brakes" hand signal in response;
- display the "Chocks Removed" hand signal;
- receive agreement of the flight crew when they display the "Chocks Removed" hand signal in response.

4.13.3 ACTOIN PRIOR TO DEPARTURE

Prior to departure of the aircraft, make sure that:

- the ramp area is clear of all FOD and any loose articles;
- the apron surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement;
- the ramp area is free of objects/obstacles which may be impacted by the aircraft or may endanger others due to jet blast effects;
- all persons not involved in the aircraft departure operation must remain clear of the departing aircraft, behind the ERA;
- additional ground staff such as Wing Walkers are present (if applicable/required);

- verbal communication with flight crew is established by means of an interphone system:
  - Departures using marshalling hand signals without any headset communication are only conducted in exceptional cases.

CAUTION	Do not leave wheel chocks on the ramp surface after removal from aircraft. 

4.13.4 PRE-DEPARTURE TABLE

General: prior to aircraft movement, the responsible FBO/GSP ground staff must ascertain that the following requirements are met:

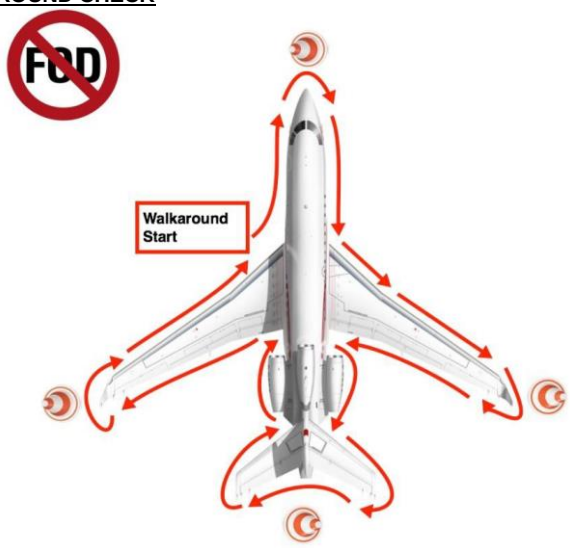
Action	Applicable to					
	Pushback			Towing		Taxi Out
	TT	TBL	PPU	TT	TBL	
The required Pre-Departure Servicing Checks are complete. No visible damage is noticed on the aircraft.	X	X	X	X	X	X
Fire protection devices are available and correctly positioned as per local rules).	X	X	X	X	X	X
Communication with flight crew is established via the interphone system.	X	X	X	X	X	X
The path and area that the aircraft is moving towards is clear of objects (FOD) ensuring safe aircraft movement.	X	X	X	X	X	X
The stand surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement.	X	X	X	X	X	X
The GSE is outside the ERA, and external stair(s) is fully retracted (if applicable).	X	X	X	X	X	X
If an Air Start Unit is required, check the equipment is ready and suitable for the operation.	X	X	X			X
Wing Walkers are present (if applicable).	X	X	X	X	X	
The air intake and blast areas of the aircraft engines are clear of persons and obstacles, such as ground support equipment.	X	X	X			X
The bypass pin is installed correctly (if applicable).	X	X		X	X	
Nose gear steering torque links are disconnected. (if applicable)	X	X		X	X	
All persons involved in the aircraft movement stay well clear of the danger areas around the tractor, landing gear and aircraft engines.	X	X	X	X	X	
A qualified brake operator is in the cockpit.				X	X	

Wheel chocks are not removed from MLG until Flight Deck has confirmed that Aircraft parking brake is set, the tractor is fully secured to NLG and the parking brake of the tractor is set.	X	X		X	X	
Wheel chocks are not removed from the NLG until the powered push unit (PPU) is fully secured to the MLG and its parking brake is set.			X			
The tractor and shear-pin combination (if applicable) are suitable for the operation, considering the aircraft type and weight, the weather and surface conditions.	X			X		
The completion of these requirements is indicated to the flight crew (Flight Deck) by means of the announcement "GROUND READY FOR PUSHBACK" via interphone.	X	X	X	X	X	
Prior to connecting the tractor to the aircraft, the tractor may be parked in front of the aircraft or outside of the ERA, but never behind the wings.	X	X	X			

Table Legend: TT = tow bar tractor / TBL = tow bar-less tractor / PPU = powered push unit

4.13.5 PRE-DEPARTURE CHECK

4.13.5.1 PRE-DEPARTURE WALK AROUND CHECK



The mandatory pre-departure walk around check includes, but is not limited to, ensuring the following:

- The apron is clear of all FOD items that may cause aircraft damage or pose a risk.

- Power cables and passenger boarding devices are detached.
- The stand area is clear of obstructions. Equipment and vehicles are positioned clear of the aircraft path.
- Adequate clearance exists between the aircraft and facilities or fixed obstacles along the aircraft movement path.
- All aircraft servicing panels and/or hatches are closed and latched (except - external power and headset panels).
- Cabin/cargo doors handles are flush with the fuselage;
- There is no visible damage on the aircraft, particularly around cabin and cargo doors.
- Any abnormalities on the aircraft observed (e.g. obvious damage, fluid leakage) are immediately brought to the attention of the pilot in command and maintenance.
- Landing gear safety pins are removed.
- There are no obvious signs of unmarked dents or other skin panel damage.

Note: see also: “GOM 5.5.2”.

If any of the above conditions or actions are not met or corrected, inform your supervisor, Hyperion Aviation's Maintenance department and the Flight Crew/Commander. This notification is imperative in the event that:

You notice signs of unmarked aircraft damage or abnormal flow of liquid under the aircraft.
You observe any fault, failure, malfunction or defect and believe it may affect the safety of the intended flight.

4.13.6 COMMUNICATION REQUIREMENTS

4.13.6.1 COMMUNICATION DURING ENGINE START

Coordinate the engine starting sequence with the flight crew by conducting a pre-departure briefing.

- During the engine start communicate with the flight crew only if you observe circumstances that require immediate notification and action by the flight crew.
- In case of starting up with an ASU, supply the pressure at the request of the flight crew, immediately before the start-up of the engine.
-

4.13.6.1.1 ENGINE IDENTIFICATION

For ground staff facing the aircraft nose, the aircraft engines are identified, from right to left. (Engine number 1 being the first engine from the right).

For twin engine aircraft:

- the left engine is considered “Number 01”.
- the right engine is considered “Number 02”.

4.13.6.2 COMMUNICATION DURING ENGINE FIRE

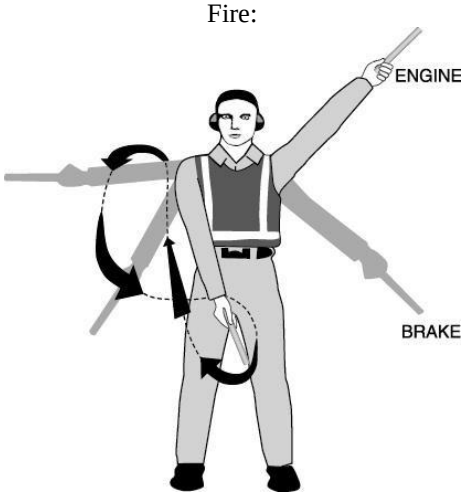
Engine Fire

The Flight Crew normally detects an engine or APU fire and will take action using the engine fire extinguishing system. However, alert the flight crew immediately via the interphone headset if flames are noticed from the engine or engine pylon.

In the event that an interphone is not available, the appropriate “Fire” hand signal must be used.

Tailpipe/Exhaust Fire

If you notice flames from the engine tailpipe during engine starting, alert the flight crew immediately, as such a fire might not be detectable via temperature sensors and/or fire warning systems in the aircraft.

Fire:  Fire! – Move right hand in an exaggerated figure of eight (8), or a fanning type motion, from the shoulder to the knee, while at the same time pointing with the left-hand wand to the area of the fire.	

 	Do not fight engine fires with fire extinguishers on the ground when the flight crew is in the flight deck. The flight crew will take all necessary action.

4.13.7 DEPARTURE COMMUNICATION

Departure communication outlined in this section is a basic standard for both pushback and open ramp (taxi out) departures. Use the specific dialogue in the following chart during the various phases of the departure procedure.

In case of an open ramp departure, the following phases in the subsequent table will not be made:

- "Pushback",
- "Pushback Completed".

This specific dialogue does not forbid the exchange of additional important information between flight crew and ground staff using non-standard phraseology (e.g. request for authorization to disconnect ground support units etc.).

Note:

- If the pushback must be stopped, the following call will be made: "STOP PUSH BACK".
- Where applicable, use "pull out" instead of "pushback".
- For towbar-less pushback operations, only engage the towbar-less tractor and lift the aircraft once the passenger boarding device is away from the aircraft and the flight crew has requested for the lifting mechanism to be engaged.

4.13.7.1 DEPARTURE COMMUNICATION DIALOGUE

The following dialogue is a sample communication to be used for a departure:

Phase	Ground Staff	Flight Crew
Preparation	Call: CONFIRM PARKING BRAKES ARE SET.	Reply: PARKING BRAKES SET.

		Call: CONFIRM BYPASS PIN INSTALLED. (except main gear pushback)	
	Reply: BYPASS PIN INSTALLED & CLEARED TO PRESSURIZE (IF APPLICABLE)		
		Reply: ROGER BYPASS PIN INSTALLED, PRESSURIZING (IF APPLICABLE)	
After completion of the pre-departure servicing checks	Call: PRE-DEPARTURE CHECKS COMPLETED, GROUND READY (TOWBARLESS) CLEAR TO START ENGINE(S) (FOR OPEN RAMP DEPARTURE ONLY)	Reply:	ROGER. STANDBY or
			YOU MAY LIFT THE AIRCRAFT (TOWBARLESS) or
			[STARTING ENGINE(S)...]
Pushback [and engine start]		Request pushback [and engine start] Clearance from ground control. After clearance received:	
		Call: READY FOR PUSHBACK	
	Call: RELEASE PARKING BRAKES or LIFTING COMPLETED, RELEASE PARKING BRAKES (TOWBARLESS)		
		When brakes are released:	
		Reply: PARKING BRAKES RELEASED	
	Call: COMMENCING PUSHBACK [AND CLEAR TO START ENGINE(S)...]		
		[Reply: STARTING ENGINE(S)...]	
Pushback completed	Call: PUSHBACK COMPLETED, SET PARKING BRAKES	When parking brakes are set:	
		Reply: PARKING BRAKES SET Call: YOU MAY DISCONNECT.	
	Tractor is disconnected and positioned in view of the flight deck.		
Clearance to Taxi	Reply: DISCONNECTING, HOLD POSITION AND WAIT FOR VISUAL SIGNAL ON YOUR LEFT/RIGHT.	Reply: HOLDING POSITION AND STANDING BY FOR VISUAL SIGNAL TO MY LEFT/RIGHT.	
	Disconnect headset and give the 'All Clear' hand signal. ('All Clear' signal includes showing the steering bypass pin)	Acknowledges "All Clear" signal.	
		(Taxi clearance may only be requested after the 'All Clear' signal is received)	

Note: In case of taxi-out, the phases "pushback" and "pushback completed" in the above table will not be performed.

4.13.7.2 ITEMS TO BE COMMUNICATED BETWEEN GROUND STAFF & FLIGHT CREW

Dialogue between Ground Staff & Flight Crew		
Phase	Ground Staff	Flight Crew
Departure Preparation	GPU removal	When instructed by flight crew, remove GPU.
	Tow bar/Tow bar-less Tractor connection	Get confirmation that the aircraft's parking brake is set. Get confirmation that the nose wheel steering is depressurized or advise flight crew that the bypass pin is inserted, if applicable. Connect the tow bar/ Connect the tow bar-less tractor
	Chock removal	Get confirmation from flight crew that aircraft parking brakes are set. Remove chocks.
	Pre-departure check	Advise the flight crew that the pre-departure check has been completed or communicate any discrepancies.

Engine start	Starting engines	When requested by the flight crew, advise when the engines may be started and start the sequence.
	ASU	When requested by the flight crew, signal to the ASU operator to supply the required pressure.
Pushback (and engine start)	Brakes	Get confirmation that aircraft's parking brakes have been released.
	Movement of the aircraft (pushback/pull out)	Get permission from flight crew, then commence the pushback.
	Direction of push/nose	If applicable, ask in which direction the aircraft has to pushed/in which direction the nose should point after pushback.
Engine start	Engine start	When requested by the flight crew, advise when the engines may be started.
Pushback completed & Engine start completed	Tow bar/Tow bar-less Tractor disconnect	Get confirmation that the aircraft's parking brake is set. Disconnect. Remove the steering bypass pin, where applicable.
	Headset removal	Get permission from flight crew to disconnect the headset. Advise flight crew to hold position and wait for visual signal at left/right of the aircraft.
Departure	"All Clear" signal	Ensure verification of pin removal has been completed, if applicable. Give the "All Clear" signal when the path of the aircraft is clear of all obstacles. Get acknowledgement of "All Clear" signal.

4.13.7.3 DEPARTURE COMMUNICATION WITHOUT INTERPHONE

An aircraft departure must always be conducted using interphone communications.

In the event that the interphone becomes unserviceable or under extreme circumstances where the interphone is not available, you must use conventional hand signals (see "GOM 4.8.4" and "GOM 4.8.5") for the departure (not applicable to main gear pushback unit departures).

Prior to departure a briefing must be held between the Commander and the FBO/GSP handling agent responsible for the departure, including:

- Review of departure specifics, e.g. direction of movement, final positioning, and taxi out direction;
- The hand signals to be used, including emergency signals.

Read back all given instructions or acknowledge them in a manner clearly indicating that they have been understood and will be complied with.

4.13.8 PREPARATION FOR PUSHBACK

4.13.8.1 PRE-DEPARTURE COMMUNICATION

An aircraft departure must always be conducted using interphone communications. In the event that the interphone becomes unserviceable, you must use conventional hand signals for the departure (not applicable to main gear pushback unit departures). Prior to departure a briefing must be held between the Commander and the FBO/GSP handling agent responsible for the departure, including:

- Review of departure specifics, e.g. direction of movement, final positioning, and taxi out direction.
- The hand signals to be used, including emergency signals.

4.13.8.2 CONNECTING THE PUSHBACK VEHICLE

The pushback vehicle is connected as follows:

- Aircraft main gear chocks installed, nose gear chocks removed, if applicable;
- Approach nose gear parallel to fuselage;

- Use a spotter to assist in the final approach to nose gear:
- Tractor & Tow bar:
- Connect tow bar to nose gear first.
  - Raise tow-bar so that its head is at same height as the tractor connection.
  - Approach slowly until connection aligns and secure connection.
  - Raise tow bar wheels.
  - Select “Neutral” or “Park” and set parking brake of tractor.
- Tow-bar-less tractor:
  - On final approach to aircraft, the tractor must be properly aligned and correctly positioned.
  - Position Tow bar-less tractor to standby for lifting and wait for approval from flight deck to lift, if applicable.
  - Select “Neutral” or “Park” and set parking brake of tractor.

Do not remove the main landing gear chocks until:
- all GSE, with the exception of the boarding passenger stairs(s), GPU, PCA, and ASU is removed from the aircraft, the pushback vehicle is connected to the aircraft and the parking brakes of both the pushback vehicle and the aircraft are set.

4.13.9 AIRCRAFT PUSHBACK

Note: reference: IATA AHM913, IATA AHM916, IATA AHM956, IATA AHM957, IATA AHM1110.

4.13.9.1 PUSHBACK REQUIREMENTS

All staff walking on ramp must remain clear of:

- aircraft nose gear throughout the pushback operation;
- the tug/tractor's path;
- engine danger areas.

4.13.9.2 PUSHBACK & PULL FORWARD

If an aircraft is to be pulled forward after pushback and engines started, care and special precautions must be taken to reduce the risk of the aircraft's engine thrust causing damage to the nose gear and tow bar when stopping the aircraft at completion of manoeuvre.

Special precautions include gentle application of brake, engine at idle thrust, towing operation at lowest gear available.

When using a tow bar-less tractor:
- Do not lift the aircraft when loading equipment and/or a passenger boarding device is still connected to the aircraft.

4.13.9.3 GROUND CREW IN CHARGE OF PUSHBACK

Ground Crew Responsibility

The responsible ground crew is defined as the person performing the communications with the flight crew. A responsible ground crew must be in charge of each aircraft pushback. This function can be performed by different agents in different roles and positions.

Responsible ground crew for the departure will:

- be in charge of the entire pushback, once clearance to begin pushback has been given by the flight crew;
- ensure that the tow bar/shear-pin/tow bar-less tractor is suitable for the specific aircraft type;

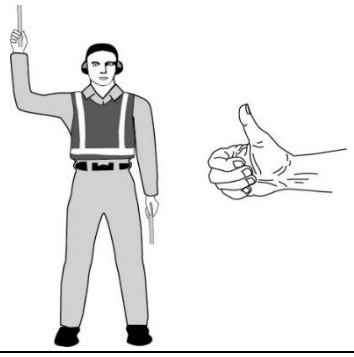
- conduct briefings with all persons involved in the aircraft movement to review and confirm how the aircraft will be manoeuvred;
- be in continuous communication with flight crew by interphone;
- have ultimate responsibility to review pushback procedures based on conditions he/she observes and must inform the flight crew:
    - if ramp conditions are below standard for a normal pushback (e.g. hazards, obstacles, slippery or icy) then:
        - He/she will inform the flight crew that engine start clearances will not be given until either:
        - the aircraft is moving over an area of the ramp where the conditions are considered to be safe for an engine start;

OR

The pushback has been completed, the aircraft has come to a complete stop and the parking brake has been set;

- ensure that the nose gear steering bypass pin is installed prior to tow bar connection to aircraft;
    - connect the interphone and conduct a communication check to:
    - verify the communication system is functional;
    - update flight crew on progress of the ramp operation;
    - request permission & disconnect ground power after verbal approval is received from flight crew.
- conduct a Pre-Departure walk-around;
- signal “All Clear” to pushback tractor driver and wing-walkers (if applicable) once advised by flight crew that the aircraft brakes have been released and clearance for pushback given by ATC;
- be positioned, either inside tractor or walking on apron adjacent to nose gear;
- monitor the interphone during the pushback and communicate with the flight crew as required;
- advise the flight crew if for any reason it is not safe to start an engine and stop the engine start (the flight crew may advise as each engine is being started);
- advise the flight crew to set aircraft brakes at end of pushback. Once confirmation from the flight crew has been received, give the brakes set signal to the tractor driver and wing-walkers (if applicable). Apply any additional safety measures as required.
- Give visual signal to the tractor driver and wing-walkers (if applicable) that it is clear to disconnect towbar after flight crew advises that engines were started normally and the ramp is clear to disconnect the towbar.
- Disconnect the headset and close the access panel on the aircraft once the clearance has been given by flight crew and the tow bar has been disconnected.
- Remove the nose gear steering bypass pin (if applicable) and ensure the swing lever is returned to the proper position.
- After headset, tow bar and steering bypass pin are removed, close and latch all access panels and then move to designated position to conduct final departure marshalling.
- Show the steering bypass pin to the flight crew and give the “All Clear to Taxi” signal.

All Clear to Taxi:



Ensure verification of pin removal has been completed–if applicable. Raise right arm to head level with wand pointing up or display hand with thumbs up, left arm remains at side by knee.

- Give the “All Clear to Taxi” signal (as shown above) once eye contact has been made with the flight crew and they are expecting the signal.
- In low-light conditions the flight crew will turn on the interior lights of the flight deck.
- Remain in position until an acknowledgement from the flight crew is received and the aircraft begins to taxi.

	The flight crew (or brake operator) must be notified immediately: • in the event any connection between the tractor and the aircraft is lost during aircraft movement; • to stop the aircraft movement using gentle brake application if the aircraft is about to overtake the tractor while towing.
	If the nose wheels are not in the centred position, they can turn quickly to their centred position when the bypass pin is removed. Personnel injury could result.
	Do not disconnect the interphone communication cable until after the towbar (or towbar-less tractor) has been disconnected from the nose gear.

4.13.9.4 WINGWALKER & TAIL GUIDE - REQUIREMENT

Wing-walkers or other assist personnel during each pushback and/or tow(ing) are a Hyperion Aviation requirement. The presence of such personnel may be controlled or restricted by NAA authorities or local airport authorities.

Note: see "GOM 4.13.1.1".

4.12.9.5 TRACTOR DRIVER

The pushback tractor driver will:

- align the tractor or tractor and tow bar combination with the centre line of the aircraft before the aircraft movement;
- completely raise the tow bar wheels before the start of the aircraft movement (if used);
- standby for clearance to push communication from flight crew or responsible ground crew;
- select appropriate gear on tractor and slowly begin movement;
- prior to the aircraft movement, make sure that the parking brakes are released and the anti-collision lights are switched on (depending on the local airport regulations);
- start the pushback operation on a straight line;
- keep the manoeuvring speed to a minimum, and apply the vehicle brakes gently;
- scan the apron during pushback, monitor clearances and wing-walkers (if applicable) to ensure that aircraft is moving clear of all obstructions. Be prepared to stop;
- ensure during pushback the steering turn limits are not exceeded and advise flight crew if any are exceeded. Damage to nose gear will occur;
- if responsible ground crew on interphone is walking on ramp, maintain visual contact and ensure a safe distance is maintained from the nose gear during entire pushback;
- if the responsible ground crew is too close to the nose gear, the pushback must be stopped and a review of the required safety clearance conducted.
- set brakes on the tractor once pushback is completed;
- Maintain the brakes on the pushback until the release signal is received from the flight crew or responsible ground crew on interphone;
- wait for flight crew or responsible ground crew on interphone to give the “Aircraft Brakes Set” signal;
- release the tractor brakes and put the gear selector in “Neutral” after aircraft brakes have been set, to release any pressure on the tow bar;

- position the tractor in the aircraft's path and be visible to the flight crew (if possible) after the tow bar has been disconnected from the tractor;
- remain in position visible to the flight crew until the headset operator has disconnected and is in view of the flight crew;
- drive tractor back to terminal or appropriate parking position.

If the nose wheels are not in the centred position, they can turn quickly to their centred position when the bypass pin is removed. Personnel injury could result.

4.13.10 OPEN RAMP DEPARTURE

- Complete all pre-departure checks.
- Refer to departure communication section and follow required phases of dialogue.
- Ensure all staff and equipment is clear of the aircraft behind the ERA.
- Position for marshalling in an area behind the ERA while being in clear view of the flight crew on either side of the aircraft (depending on facility).

4.13.11 MANOEUVRING DURING ADVERSE WEATHER CONDITIONS

Note: reference: IATA AHM462

During adverse weather conditions (fog, rain, etc.) visibility and traction will be affected. The FBO/GSP Handling Agent (tractor driver) must reduce and adapt vehicle speed as required by the present conditions.

4.13.11.1 ICY CONDITIONS

When manoeuvring the aircraft on slippery apron surfaces, extreme caution is required to avoid losing control of the tractor due to skidding. Many elements can contribute to the hazards involved such as strong winds, slippery road surfaces, and pavement slopes, etc.

Observe the following minimum precautions:

- Avoid sudden turns, deceleration or acceleration.
- Except when using an Air Start Unit, do not start aircraft engines unless:
- the condition of the pavement is such that reasonable traction is ensured;
- the aircraft parking brakes are set and the aircraft is disconnected from tow tractor/tow-bar-less tow tractor.

Note: In icy weather conditions (slippery ramp conditions), the tractor may be connected to the aircraft, unattended, with the engine running, only if the tractor is properly chocked on all wheels.

4.13.12 NOSE GEAR STEERING

Each aircraft type has specific requirements for the bypass of the nose gear steering mechanism.

The bypass pin must be:
- labelled with the specific aircraft type(s) for which it can be used;
- identified with a “Remove Before Flight” streamer;
- checked regularly for proper technical condition, or as per manufacturer instructions.

4.13.12.1 NOSE GEAR PROTECTION AND STEERING ANGLES

In order to protect the nose gear from damage, visual turning limit markings indicate the aircraft's maximum nose gear steering angles.

DANGER	• In the event of exceeding the maximum nose gear steering angle, inform the maintenance department and flight crew, if applicable, and request a technical inspection. The aircraft must return to the parking stand in order to check whether the gear is damaged. • When using a towbar-less tow tractor equipped with either an over steer warning or over steer protection device, verify the visual turning limit markings at all times to prevent exceeding the maximum nose gear steering angle. • When using a towbar-less tractor on an aircraft, the "over steering" or "over torque" system of the tractor must be operative.

4.13.13 ANTI-COLLISION LIGHT(S) - ROTATING BEACON

On a standard arrival, GSE equipment is to be positioned behind the equipment restraint line (defining the stand boundary/equipment restraint area) with parking brakes applied prior to the arrival of the aircraft at the parking position.

The anti-collision light, when operating, indicates the engines are running or are about to be started and the required cautions must be exercised.

On a standard departure, once all aircraft doors are closed, the flight crew requests pushback clearance from ATC.

Once clearance is obtained the flight crew will switch on the aircraft's anti-collision lights.

DANGER	• Other than chocking the nose-wheel or an arriving aircraft, the only other activity permitted when the anti-collision beacon is on, is the provision of ground power where required. • Other than these activities, no staff or vehicles should approach an aircraft until after the anti-collision has been switched off and the nose-wheel chocks are in place.
CAUTION	Anti-collision lights that are switched on are a visual indication to ground staff of imminent engine start-up or aircraft movement. Vehicle traffic must stop until the aircraft has departed from the area.

4.13.14 ENGINE CROSS BLEED START

Engine start using cross bleed can only be performed once the pushback has been completed, the aircraft brakes have been engaged, and the area around the aircraft is clear.

CAUTION	With engine(s) above idle thrust, blast and suction effects are greater.

4.13.15 RE-ESTABLISHING COMMUNICATION AFTER DEPARTURE

This procedure is to be used in case the ground staff or flight crew wishes to re-establish interphone communication after it has been disconnected.

4.13.15.1 INITIATED FROM THE COCKPIT

The flight crew sets the parking brake and re-establishes communication with ground staff via company channel or ATC. If visual communication with responsible ground agent is still established, then visual signals may be used.

4.13.15.2 INITIATED FROM THE GROUND

If ground staff needs to re-establish communication with the aircraft after dispatch, do NOT approach the aircraft. If communication cannot be established using hand signals, make contact via company channel or through ATC. When preparing to re-establish communication with aircraft, take the following precautions:

- Make sure you have been seen by the flight crew and the intention to approach the aircraft to re-establish interphone communication is understood.
- Approach the aircraft from the direction where visual contact with the flight crew is maintained as long as possible.
- Only the person establishing the interphone communication shall approach the aircraft.
- Stay outside the aircraft's engine danger area when approaching the aircraft.
- If possible, position pushback tractor in front of aircraft in clear view of flight crew to act as a safety barrier and prevent premature movement of the aircraft.

For safety reasons, the interphone communication system cannot be used when there is thunderstorm activity over the airport as there is a risk of electrical discharges between the aircraft and the interphone system. Under these conditions' communication headsets cannot be worn.

4.13.16 INTERPHONE COMMUNICATION FAILURE

Aircraft pushback requires a communication interphone. In the event the interphone becomes unserviceable or communications is lost, the following procedure must be followed:

- In case of a single person operation and if no other means of communication are available, stop the movement (depending on local situations and regulations) and immediately request assistance to continue the movement.
- In case of multiple person operation then communication with the flight crew will be established using hand signals as described in this chapter. The tractor driver must be able to receive the visual signals as relayed from the flight crew. Once hand signal communication has been established the pushback can resume.
- Notify ATC (if radio available) and continue the movement in co-operation with ATC, depending on local regulations.

4.13.16.1 INTERPHONE FAILURE DURING TOWING

If during the tow the interphone fails, the tow must immediately be stopped and an alternate means of communication established before continuing. If this is not possible, assistance must be requested.

4.13.17 AIR START (ASU) INSTRUCTIONS

- When positioning an air start unit, an identical procedure to positioning the GPU is followed, i.e. a safe path of exit/entry must be established and maintained. When operating an air start unit, care must be taken to follow the operating instructions as severe damage to the vehicle or aircraft can result as well as the possibility of injury to handling staff.
- On request the unit should be started and allowed to warm up as per the operating manual. When operating conditions are as required the unit is ready and available to service the aircraft. The Air Start hose should be connected to the aircraft ensuring that the safe path of entry/exit is maintained, at this time no attempt should be made to supply air to the aircraft as severe damage could result.

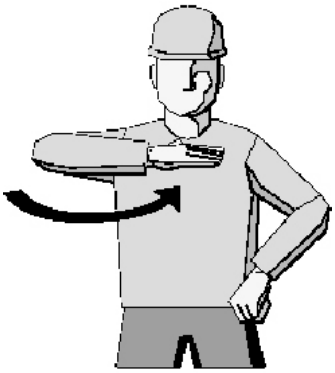
When power is required the engineer or headset operative will give the appropriate signal to 'supply full power from the air start unit.

This signal is done by, moving his arm in a large circular movement in front of his body.

Begin ASU starting:

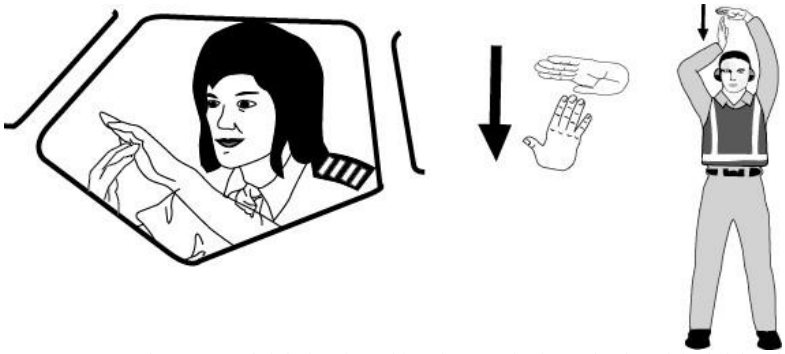
Move right arm in a large circular motion in front of the body. The left arm remains extended, motionless.
Hold the position until the aircraft is clear for the next manoeuvre.

Terminate ASU air supply:



Right arm and hand level with shoulder, palm downward horizontally swinging from extended arm to throat.

To disconnect ASU:



Hold arms fully extended above head with finger tips of right hand touching the open horizontal palm of the left hand (forming a "T"), then move right hand away from the left. DO NOT disconnect ASU until authorized by the flight crew. At night, illuminated wands can also be used to open the "T" above the head.

On receipt of this signal the air start operative will supply power to the aircraft. When the engine(s) are started and supply is to be terminated the engineer/headset operative will give the cut power signal. (This is done by drawing an open hand, palm down, across his throat) followed by the disconnect sign (this is done by forming a T sign with the open hand, palm down of the left hand and a closed fist of the right hand then pulling both hands apart) to signify a disconnection is required.

Having switched off power, before disconnecting the air start from the aircraft, ensure that the connection hose is collapsed, i.e. is no longer pressurised due to a faulty non-return valve on the aircraft.

- If the hose has not 'collapsed' on no account must an attempt be made to disconnect from the aircraft as serious injury could result from an uncontrolled pressurised hose.
- If the cause of the problem is confirmed as a technical fault with the aircraft then the engines will have to be shut-down and the fault rectified.
- The emergency stop button is for use in emergency only and must not be used for routine shut- downs of the unit as serious damage can result.

4.13.18 GROUND RUNNING OF AIRCRAFT ENGINES

The ground running of engines is the responsibility of the flight deck crew and maintenance/engineering and must be undertaken in accordance with the published procedures and local airport regulations.

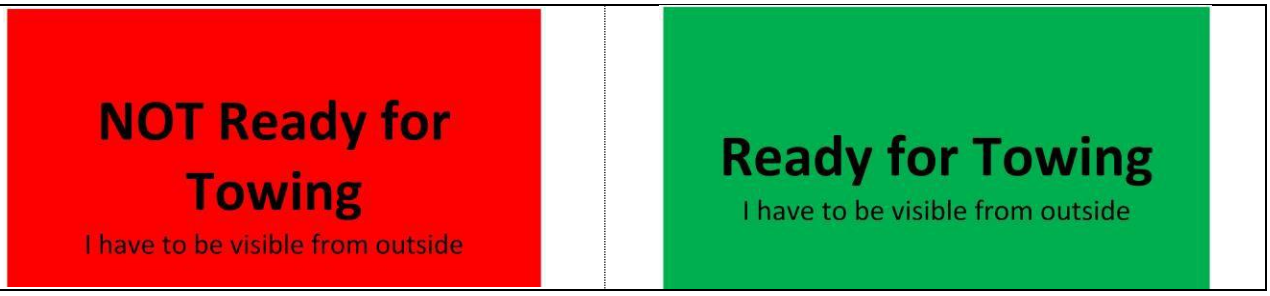
4.14 AIRCRAFT TOWING & PUSHING

Note: reference: IATA AHM463.

CAUTION	Hyperion Aviation requires the FBO/GSP Handling Agents to use proper, certified factory tow vehicles designed for aircraft towing. Under no circumstance will Hyperion Aviation aircraft be towed with a pickup truck, tractor, golf cart, or any other vehicle not designed for aircraft towing.
DANGER	Aircraft Towing is a task, which carries great responsibility and can quickly develop into a dangerous situation. Always respect the procedures and be aware of your surroundings and pay close attention not only at the task at hand, but also to those completing the task together with you.

4.14.1 AIRCRAFT TOWING REQUIREMENTS

All Hyperion Aviation aircraft have a towing placard on board, which should be placed visible from the outside, as shown below which indicates if the aircraft is ready to tow, with a towing truck or the correspondingly tow bar for that aircraft type.



The following requirements must be met to perform an aircraft tow:

- Ensure hydraulic system pressure for aircraft braking and/or the brake accumulator is within required pressure range.
- Ensure any required electrical systems for towing are energized.
- Ensure all gear safety pins/sleeves are installed, and after tow, ensure all pins are removed and stowed.
- Make sure all minimum required towing/pushing personnel is available (e.g. qualified brake operator is in the cockpit, wing-walkers and tail-guide are available).
- Establish communication with the brake operator by means of the interphone system.
- Make sure wheel chocks are positioned at the end of the manoeuvre, prior to disconnecting the tow-bar-less tow tractor or tow-bar.

CAUTION	Inform the brake operator/flight crew and/or contact the maintenance department for technical inspection if you: • observe any type of excessive fluid leakage; • notice any signs of unmarked aircraft damage; • observe any fault, failure, malfunction or defect which you believe may affect the safe operation of the aircraft for the intended flight.

4.14.1.1 WINGWALKER(S) & TAIL-GUIDE

Wing walkers or other assist personnel during towing/pushing are a mandatory requirement. Wing walkers will always be utilised during towing/pushing tasks. The minimum requirements are:

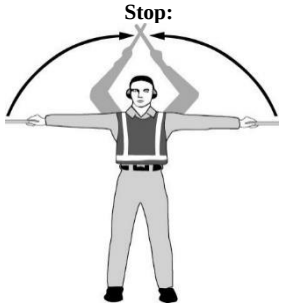
- for all ramp towing/pushing procedures two (2) wing-walkers, which does not include the tug driver (total manpower requirement three (3);
- for all hangar entering/exiting procedures two (2) wing-walkers and one (1) tail guide, which does not include the tug driver (total manpower requirement four (4);
- for all towing/pushing from/to very tight spots (short/long-term storage) two (2) wing-walkers and one (1) tail guide and one additional supervisor who has a clear view of the entire team, the entire aircraft and its surroundings, which does not include the tug driver (total manpower requirement five (5);

- on top of the requirements detailed above, one (1) additional brake operator can be required for specific aircraft (Bombardier aircraft).

Wing-walker or other assist personnel must:

- be under the direction of the responsible ground crew at all times;
- each use marshalling wands, either day-wands or illuminated wands for low visibility operations;
- be positioned before and during movement of aircraft as follows where applicable and/or permitted:
- Approximately 1 metre outboard of the wingtip;
- In line with the rearmost main gear wheel.
- ensure the aircraft movement path is clear of any obstructions, other aircraft, vehicles etc.;
- provide “Safe to Proceed” clearance signals at all times to the tractor driver by using a distinct “Pendulum” motion of the arm;
- continue to monitor the aircraft path until the aircraft is stopped at the departure point;
- position themselves in clear visibility of the flight crew on the terminal side, at a safe distance away from the aircraft (either at the 11 o'clock or 1 o'clock position).

Stop:



Fully extend arms and wands to cross above the head (or in front of the chest).

- give the “AIRCRAFT HOLD” signal to the flight crew when the visual “Brakes Set” signal (as shown above) has been received from the #1 Man;
- remain in position until the responsible ground crew walks over to take over the marshalling clearance of the aircraft;
- return to terminal once marshalling duty has been transferred.

4.14.2 TOWING MANOEUVRING

The towing manoeuvring procedure is similar for all aircraft types. The following minimum safety precautions and procedures must be followed prior to and during aircraft towing operations:

- Assemble and brief the entire towing/pushing team (tug driver, brake operator, wing-walkers, tail-guide) on the job at hand (aircraft type, intended trajectory, special information, weather conditions, light conditions, use of proper signals).
- Align the tractor or tractor and tow-bar combination with the centre line of the aircraft before the aircraft movement.
- Completely raise the tow-bar wheels before the start of the aircraft movement (if used).
- Prior to aircraft movement, make sure that the parking brakes are released and the anti-collision lights are switched on (depending on local airport regulations).
- Wait for the authorization of the flight crew or brake operator before moving the aircraft.
- Start the pushback operation on a straight line.
- Keep the manoeuvring speed to a minimum, and apply the vehicle brakes gently.
- Do not exceed the towing speed limit as regulated by the towing equipment, aircraft and/or airport.
- Use relevant apron lines as guidance during manoeuvring to ensure safe obstacle clearance.

- Keep a minimum safety distance between vehicles sufficient in which to stop.
- Stop 50 meter before a taxiway intersection, if a stop is required.
- Avoid sharp turns, which results in excessive tire scrubbing.
- Make all stops smoothly.
- When arriving at the allocated position, move the aircraft in a straight line for a few meters to ensure that the nose wheels are in the straight-ahead position. This relieves any torsional stress applied to landing gear components and tires.
- Apply the tractor parking brake after a complete stop.

Note 1: Some of these precautions may not be applicable to tow-bar-less vehicles.
Note 2: Brake Operator requirement can be waived with prior approval of the respective NP Ground Operations.

4.14.2.1 TOWING PREPARATION

The following checklist is to be used in preparation for an aircraft tow.

Action	Performed by	
	Brake Operator	Tractor Driver
Apply the cockpit checklist for towing.	x	
Connect and test the interphone link.	x	
Insert the bypass pin.	x	x
Give permission to connect the towbar and tractor or towbar-less tractor after applying the aircraft parking brake.	x	
Connect the towbar; first to the aircraft, then to the tractor.		x
Before connecting the towbar-less tractor, ensure the aircraft main landing gears are symmetrically chocked.		x
Connect the tractor or towbar-less tractor and set the parking brake.		x
Once all GSE has been cleared away from the aircraft, remove or check removal of aircraft chocks.		x
Switch on the external and anti-collision lights of the aircraft.	x	
Contact the Control Tower for clearance to start moving the aircraft (depending on local regulations).	x	x
After receiving the clearance, release the aircraft parking brake.	x	
Give clearance to the Tractor Driver to start moving the aircraft.	x	
Request confirmation from the Brake Operator that the aircraft parking brake has been released.		x
Conduct tow.		x

Note: do not forget to include the wing-walkers, and where applicable tail-guide, in your towing/pushing operation.

4.14.2.2 TOWING COMPLETION

The following checklist is to be used at the end of an aircraft tow.

Action	Performed by	
	Brake Operator	Tractor Driver
Set tractor parking brake.		x
Request Brake Operator to set the aircraft parking brake.		x
Inform the Control hat towing is completed and the frequency will be left (depending on local regulations).	x	x
Set the aircraft parking brake and check the pressure. Inform the Tractor Driver: “PARKING BRAKE SET”, “PRESSURE CHECKED”.	x	
Chock the aircraft main landing gear.		x
Switch off the external and anti-collision lights of the aircraft.	x	
Inform Brake Operator: “AIRCRAFT CHOCKED”.		x

Request permission from Brake Operator to disconnect the tow bar or tow bar-less tractor.		x
Give permission to disconnect the tow bar or tow bar-less tractor.	x	
Disconnect the tow bar or tow bar-less tractor and remove the bypass pin.		x
Chock the aircraft.		x
Inform: "TOWBAR/TRACTOR DISCONNECTED".		x
Release the aircraft parking brake and inform: "PARKING BRAKE OFF".	x	
Check and inform: "AIRCRAFT STABILIZED".		x
After permission from the Brake Operator, shut down and disconnect the tractor GPU.		x
Install and connect a GPU.		x
Remove and stow gear safety pins in the dedicated location.	x	

4.14.3 **INCIDENTS DURING TOWING**

Brake Operator	Tractor Driver
VHF Communication Failure	
	Stop aircraft/tractor set immediately. Apply tractor parking brake. Advise Towing Regulation and wait for assistance (Follow me before completing the towing).
Tractor Failure	
Inform ATC. Apply parking brake. Listen to VHF and wait for assistance.	Stop aircraft/tractor set. Inform ATC (tow bar-less towing with one-man operation). Apply tractor parking brake. Chock the aircraft. Listen to VHF (tow bar-less towing with one-man operation).
Coupling Break Off	
Break the assembly by stepping on both brake pedals progressively. As soon as the aircraft is at a standstill, apply the parking brake before releasing the pedal.	Do not apply tractor brakes. Follow the aircraft path attentively and stop the tractor according to the aircraft position. Chock the aircraft.
Tractor Fire	
Inform ATC. Apply parking brake.	Inform the Brake Operator. Stop aircraft/tractor set immediately. Move tractor away as rapidly as possible. Fight the fire, using the fire extinguisher. Chock the aircraft.
Aircraft Fire	
Inform ATC. Apply the parking brake. Fight fire with the on-board fire extinguisher. Evacuate the aircraft using on-board means, if required.	Stop aircraft/tractor set immediately. Move tractor away as rapidly as possible. Chock the aircraft.
Accident with Other Aircraft or Vehicle	
Contact the Control Tower stating position and nature of trouble. Listen to VHF and wait for assistance.	Stop aircraft/tractor set immediately. Apply tractor parking brake. Advise towing regulation. Do not unload or disconnect the aircraft. Chock the main landing gear.

Note: The tractor/tug driver, brake operator, Wing walkers and tail-guide must continuously keep each other informed.

4.14.4 **TOWING LIMITS**

Fuel and other loads can affect an aircraft's balance. To avoid "tail tipping" during towing, ensure that the actual centre of gravity of the aircraft is forward of the critical centre of gravity. If you are unable to determine this, then you must request assistance from the flight crew.

4.14.4.1 TOWING LIMITS & GUST LOCK LOCKING

The Gust Lock locking procedure is an important issue when parking Cessna turbojet aircraft. Reason for this is that the aircraft has no hydraulic controls and if the controls are not locked the wind will violently move these from one side to the other causing eventual damage.

During normal towing operations the nose wheel may be moved, depending aircraft type, up to 95° either side of centre before engaging the stop bolts on the trunnion. Turning the nose wheel past the bolt limit damages the system and results in loss of nose wheel steering capability.

Pilots will also normally disconnect nose wheel “scissors”, disengage the parking brake, place the “Brakes OFF” sign behind the windscreen, (on both sides), place/attach all pitot covers and engine covers.

4.14.4.2 TOWING LIMITS

For the aircraft specific towing limits please refer to the aircraft annexes.

4.15 AIRCRAFT – HANGAR PARKING & MANOEUVRING

4.15.1 GENERAL PRECAUTIONS

Towing aircraft and manoeuvring/parking it in an aircraft hangar is a very complex procedure that requires close concentration. It is one of the most safety critical operations procedures performed with aircraft on the ground.

	Using improper towing, manoeuvring and parking procedures can result in bodily injury and extensive aircraft damage, with extreme high associated costs.

Hyperion Aviation require the use and presence of wing-walkers, detailed Wing-walkers instructions are to be observed. See "GOM 4.13.1.1"

The crew may be able to assist in wing walking, if duty times allow.

Tow-tug(s) have to be removed from the aircraft immediately upon completion of the towing operation. Never leave a tow tug connected to an aircraft.

4.15.2 HANGAR PARKING & MANOEUVRING PROCEDURES

Note: reference: IATA AHM463

- Open hangar doors.
- At dusk/night or low-light conditions, activate hangar illumination, issue Wing walkers and tail-guide with (red) illuminating batons.
- Perform external inspection of the aircraft (damage, oil, etc.).
- Confirm visually with Wing walkers that aircraft wingtips are free of all obstacle(s).
- Put the appropriate tow-tug in front of the aircraft and engage the tow-tug handbrake/parking brake.
- At night the tow truck should be clearly visible. (Proper use of lights)
- Remove aircraft chocks and confirm that aircraft brake is disengaged.

Follow standard aircraft towing procedures as described in “GOM 4.13”

- When towing the aircraft keep a vigilant lookout and communicate/remain in eye contact with the Wing walkers and tail-guide.

- Position the aircraft in front of the hangar (be aware of eventual slopes on the ramp area or at the hangar entrance area).
- Perform the tow of the aircraft into the hangar.
- Confirm visually with Wing walkers that aircraft wingtips are free of all obstacle(s).
- Confirm visually with tail-guide that aircraft tail is free of all obstacle(s).
- Upon positioning of the aircraft at its assigned hangar parking position, remove the towing vehicle and position it away from the aircraft.
- Close the aircraft as per standard procedures.
- Look around the aircraft for any eventual FOD and remove them.
- Close the hangar doors.

Hyperion Aviation aircraft shall be positioned as such to avoid any wing overlap hazards.
Never overlap any part of an aircraft with any part of another aircraft!

4.16 FOD & RAMP CLEANING

Note: reference: IATA AHM460, IATA AHM465

4.16.1 GENERAL

Damage to aircraft, equipment and other property as well as injury to personnel caused by FOD is a serious safety issue:

- Failure to properly clean areas and account for removed objects, nuts, bolts, paper, plastic, drinking containers/cups/cans, rags, pavement fragments, baggage components/tags, aircraft waste, catering equipment, etc. used during the performance of any task;
- Inadequate housekeeping;
- Failure to clean-up after severe weather (loose objects);
- Failure to account for tools and parts;
- Failure to maintain ground support equipment properly;
- Apron works in progress/construction sites.

To prevent these situations, the FBO/GSP should establish initial and recurrent training programmes in relation to FOD. Also, the following should be adhered to:

- Effective housekeeping to maintain a FOD free and tidy work-place;
- Conducting inspections to ensure areas where aircraft operate are clean of rubbish and other debris that can cause FOD;
- A FOD check should be completed at each area prior to any aircraft arrival and departure or aircraft movement.

4.16.2 RAMP FOD CHECKS

Cleaning the aircraft position and their surroundings on the apron areas, including the areas for positioning handling equipment (marked by red lines) is exclusively the task of FBO/GSP and Airport Operators.

Every user of the airside of the airport must continually make every effort to avoid contamination and FOD. In addition, he must make sure that:

- all waste is taken away immediately, and deposited in special FOB bins,
- contaminated areas are immediately and completely cleaned, whenever possible,
- any incorrectly parked equipment is moved immediately,
- when severe wind warnings are issued, a FOD sweep on the ramp should be performed as debris picked up by high wind can cause severe aircraft damage,
- any irregularity is immediately reported to the ‘airside operations and safety inspection’ authority.

FOD bins are preferably placed at regular intervals on the ramp area, they should preferable be of yellow colour, and be tightly affixed (or be of a heavy nature) to avoid them being moved around by sever wind.

Note: Unattended equipment and waste lying on the ramp may result in foreign object damage (FOD) to the aircraft. Aircraft engines are particularly vulnerable.

Examples of FOD Posters/Warnings:

4.17 AIRCRAFT CLEANING & INTERIOR CARE

4.17.1 GENERAL

Aircraft cleaning not only describes the task of removing waste, but also cleaning of the aircraft interior and fittings, when requested by the crew (Commercial Attendant or Commander) Exterior cleaning normally takes place during (scheduled) maintenance at a maintenance facility.

When aircraft aren't properly cleaned after each flight, bacteria such as methicillin-resistant Staphylococcus aureus (MRSA) and E.-Coli can live for up to a week on chair(s) upholstery, tray tables, galley fixtures, armrests, toilet handles and any other part of the aircraft which can be touched by hands or other body parts.

Because of Hyperion Aviation specific operations, requirements for interior and exterior cleaning may vary from normal practices as exercised by FBO/GSP working mainly for airline-type operations. When in doubt contact the crew (Commercial Attendant or Commander).

Note: Hazards in connection with aircraft cleaning are described in "GOM 7.4"

4.17.2 CLASSIFICATION OF INTERIOR CLEANING TYPES

Interior cleaning is normally defined by distinct processes:

- On-board cleaning – general light upkeep.
- Daily clean, usually after the flight or during night-stops,
- Scheduled deep clean, at periods specified, and supervised by the respective Hyperion Aviation Maintenance and/or Engineering department.

Note: Most Hyperion Aviation aircraft are equipped with basic cleaning kits according to aircraft type and flight durations. These kits shall be filled up by the Commercial Attendant or replaced at the main hubs when the aircraft returns there.

4.17.3 INTERIOR CLEANING – BASICS

To remove dust and loose dirt from the upholstery, headliner and carpet, clean the interior regularly with a vacuum cleaner.

Blot up any spilled liquid promptly with cleansing tissue or rags. Do not pat the spot; press the blotting material firmly and hold it for several seconds. Continue blotting until no more liquid is taken up. Scrape off sticky materials with a dull knife, then spot clean the area.

Oily spots may be cleaned with household spot removers, used sparingly. Before using any solvent, read the instructions on the container and test it on an obscure place on the fabric to be cleaned. Never saturate the fabric with a volatile solvent; it may damage the padding and backing materials.

	Use all cleaning agents in accordance with the cleaning product manufacturer's recommendations. The use of toxic or flammable cleaning agents is strongly discouraged. If these cleaning agents are used, ensure adequate ventilation is provided to prevent harm to the user and damage to the aircraft.

Soiled upholstery and carpet may be cleaned with foam-type detergent, used according to the manufacturer's instructions. To minimize wetting the fabric, keep the foam as dry as possible and remove it with a vacuum cleaner.

The plastic trim, instrument panel and control knobs need only be wiped with a damp cloth. Oil and grease on the control wheel and control knobs can be removed with a cloth moistened with kerosene. Volatile solvents, such as mentioned in paragraphs on care of the windshield, must never be used since they soften and craze the plastic.

4.17.3.1 ADDITIONAL (UPON REQUEST) CLEANING SERVICES

Commercial Attendants or the Commander must request the respective FBO/GSP Company prior to arrival in case of special cleaning requirements. In addition to this crew can request the following services:

- Waste pick up and destruction,
- Body fluid cleaning,
- Vacuuming of cabin floor,
- Lavatories/Toilet cleaning,
- Cleaning of cockpit windows,
- Cleaning of cargo holds,
- Refill of cleaning kits.

4.17.3.1.1 AD-HOC CLEANING EQUIPMENT AND SUPPLIES

The cleaning companies are responsible of holding the right kinds of equipment to perform the work that they are contracted to do.

Be aware that the maximum power for the vacuum cleaners that are connected to the electrical sockets provided for that purpose on the plane shall be 1,100 watts (115v 400hz) and they must be connected with the appropriate plugs in the said socket.

4.17.4 CLEANING WITH PASSENGERS ON BOARD

Cleaning is not normally carried out with passengers on board.

4.17.5 CABIN DISINFECTION REQUIREMENTS/PROCEDURES

Disinfection would be arrange via the service provider insuring provide a disinfection certificate upon complete.
Referring to EASA Guidance of aircraft cleaning and disinfection .
In case of confirm Covid case or receiving information within maximum 48 hours after the flight has ended, that a person (passenger or crew member) that has travelled in their aircraft was confirmed positive for COVID-19, should perform a disinfection of the respective surfaces of the aircraft, unless disinfection has been performed prior to notification and post the affected flight. Disinfection should be performed following best practices, as soon as operationally possible and, preferably, no later than 24 hours after receiving the information

4.17.6 COCKPIT CLEANING

The cockpit crew will carry out general cockpit cleaning as part of a daily clean. However, any detailed cleaning of instruments or equipment must be carried out by an approved engineer.

4.17.7 SPRAYING OF DEODORANTS

As requested by Commercial Attendant or Cockpit Crew.

4.17.8 EXTERIOR CLEANING

The schedule of exterior cleaning work is maintained by the respective Hyperion Aviation Engineering department.

4.17.9 WINDOWS & WINDSHIELDS CLEANING

The glass windshields and forward (fixed) cockpit side windows, and the acrylic aft (open able) cockpit windows, and the cabin windows should be kept clean at all times.

The acrylic windows should be kept clean and waxed at all times. To prevent scratches and crazing, wash them carefully with plenty of mild soap and water, using the palm of the hand to feel and dislodge dirt and mud. A soft cloth, chamois or sponge may be used, but only to carry water to the surface. Rinse thoroughly, then dry with a clean, moist chamois. Rubbing the surface of the plastic with a dry cloth builds up an electrostatic charge which attracts dust particles in the air. Wiping with a moist chamois will remove both the dust and this charge.

Remove oil and grease with a cloth moistened with kerosene. Never use gasoline, alcohol, benzene, acetone, carbon tetrachloride, fire extinguisher or De-Icing fluid, lacquer thinner or glass cleaner. These materials will soften the acrylic and may cause it to craze.

After removing dirt and grease, if the surface is not badly scratched, it should be waxed with a good grade of commercial wax. The wax will fill in minor scratches and help prevent further scratching. Apply a thin, even coat of wax and bring it to a high polish by rubbing lightly with a clean, dry soft flannel cloth. Do not use a power buffer; the heat generated by the buffing pad may soften the acrylic.

Do not use a canvas cover on the windshield, unless freezing rain or sleet is anticipated. Canvas covers may scratch the acrylic surface.

4.18 AIRSIDE DRIVING SAFETY

4.18.1 REGULATIONS

The main legislation for the control of vehicles airside is the local Airport Authority. Airport Authorities have a statutory responsibility for ensuring that staff operating at the airport are made aware of their requirements. This is usually achieved by adapted airside driver training.

Additionally, local Airport Authorities strictly control the operation of vehicles airside assisted in some instances by the local Police. The main requirement is to create a safe environment to avoid conflict between aircraft, vehicles, equipment and pedestrians and, to this end, Hyperion Aviation expect these standards to be upheld by all staff and staff of handling agents staff working on Hyperion Aviation aircraft.

FBO/GSP Employers should issue FBO/GSP Handling Staff with an approval permit after ensuring the employee is competent to operate any vehicle or specialised equipment airside.

Local Airport Authorities have a responsibility to licence any driver operating airside. This is usually done by a practical and written test either set by the Airport Authority or carried out on their behalf by specifically approved employers conducting their own training.

Additionally, the Health and Safety at Work Regulations (HSE/HSSE/OHS) applies to all airside areas. Anyone working airside has a statutory obligation to work in a manner that does not endanger themselves, other workers. This includes the safety of airline passengers.

Conduct airside is subject to detailed safety instructions. Compliance with Airport instruction is a condition of use of the airfield. Failure to comply with these regulations may result in the offenders Airside Driving Permit (ADP) being suspended or revoked or airside access being denied. FBO/GSP Handling Staff also render themselves liable to severe financial penalties and/or imprisonment.

4.18.2 THE AIRSIDE ENVIRONMENT

Airside is an extremely hazardous environment in which to work and drive. The associated dangers of aircraft and large quantities of aviation fuel plus the extreme congestion on airport aprons and large specialist vehicles associated with the turnaround of an aircraft, create extreme hazards to the inexperienced or the unwary.

During training FBO/GSP Handling Staff must be briefed on the specific rules of their particular airport including speed limits, location of Fire Points and other essential information. Whilst FBO/GSP employers will train their Handling Staff accordingly, every staff member should improve their individual skills through knowledge of the Airport Regulations and Employers ramp standards and requirements.

4.18.3 HEALTH REQUIREMENTS

Vision:
FBO/GSP Airside Drivers must have their eyesight tested every 3 years. The requirement is for visual acuity of at least 6/9 in the dominant eye and 6/12 in the other (using corrective lenses if necessary).

Colour Perception:
FBO/GSP Handling Staff are required to demonstrate the ability to distinguish the signal colours

- RED,
- GREEN, and,
- WHITE;

using the Ishihara Plates or approved Lantern Test.

Note: The use of colour correcting 9X-chromic lens are not acceptable under these procedures.

Medication:
FBO/GSP Handling Staff must not drive airside whilst taking any drugs or medication, prescribed or otherwise unless approved by their doctor. Failure to comply with this requirement may result in disciplinary action and could result in the offender being prosecuted.

Alcohol:
FBO/GSP Handling Staff may not drive or operate any equipment whilst their judgment may be impaired by alcohol. FBO/GSP Handling Staff are reminded that drinking heavily the night before, may render them unfit to drive the following morning.

Hearing:

Airside is a particularly noisy environment in which to work. Employers are required to supply hearing protection, which must be worn in noisy areas.

It is essential that FBO/GSP Handling Staff have the ability to hear under adverse conditions. The requirement standard is to be able to hear a forced whisper in either ear at 6 metres.

4.18.4 VEHICLE REQUIREMENTS

All vehicles operating airside should preferably be of local MOT standard (annual test of vehicle safety, roadworthiness aspects and exhaust emissions – per local country laws). Additionally, we require the following best practices to be respected:

- Drivers and operators must ensure the vehicle or equipment they are about to operate is free from visual defects.
- Ramp staff must undertake a daily inspection of all vehicles and equipment and report any defects to their Supervisor.
- When operating airside at night, or in poor visibility, drivers must use dipped headlights.
- Obstruction lights should be operating at all times when driving or operating equipment airside or as required by local Airport regulations.
- Staff must ensure they are familiar with Airport Low Visibility Procedures.
- Vehicle cabs must be kept free from Foreign Object Debris (FOD).

4.18.5 AIRSIDE DRIVING REGULATIONS

As a result of the increase of incidents and accidents world-wide at airports involving vehicles, aircraft and GSE equipment operatives, a series of recommendations were made.

The Airside Driver Training Programme ensures that drivers of vehicles operating airside receive adequate training in airside procedures, familiarisation with local airport topography, together with the Airside Driving Regulations and relevant Airside Safety and Operations Notices, Airport byelaws and conditions of use.

The following extract is for guidance only and in no way detracts from the full provisions of various Airport Driving Regulations, which should be regarded as the sole reference document in case of dispute. The driving standards set by local Airport Authorities and employers are those defined in the Airside Safety and Driving Code and on which the Airside Driving Test is based.

Failure to follow these regulations and procedures should render the staff member liable to penalty points on their driving permit and or disciplinary action. Serious or persistent breaches of the Regulations may result in the Airport Authority either suspending the driving permit or withdrawing the Staff member's access to airside altogether.

4.18.6 AIRSIDE REGULATIONS SUMMARY (GENERIC)

Smoking:
Smoking is prohibited airside except for designated smoking areas inside tenant accommodation, i.e. Crew Rooms.

Apron:
The area of an airport set aside for the parking, loading and unloading of aircraft, etc. A double white line signifies the boundary between the apron and manoeuvring areas.

Manoeuvring Area:
The manoeuvring area comprises of Runways and Taxiways.

Surface Paint Markings:
In general, yellow paint markings are for the guidance of aircraft. White surface markings are for the control of vehicles and equipment as follows:

- A White Boundary Line: Along the sides of two adjacent stands delineates the Inter Stand Clearway, additional white "zig-zag" markings may also be shown. Equipment or unattended vehicles must not be parked within these lines.
- A Continuous Double White Line: Indicates the boundary between apron areas and the Manoeuvring Area. Apart from Aircraft tugs engaged in pushback operations, vehicles must not cross this double line except when using a designated vehicle crossing.

All other access to the Manoeuvring Area is by specific authority of, and radio contact with ATC Ground Movement Control (GMC).

Note: it is imperative that local surface paint markings are studied before operating airside!

Pedestrians:
Are not allowed to enter (walk on) the Manoeuvring Area at any point including designated crossings, (this does not apply to staff engaged on aircraft pushback operations).

Documentation:
Where mandatory, all Handling Staff must be in possession of a current Airside Driving Licence before being permitted to drive unaccompanied in airside areas. Drivers must also have:

- Full current driving licence valid in the country of operation.
- Normal colour vision. (Where testing exists and is mandatory).
- An approved identity document (Security/Airport Identity Pass/Card).

Note: In countries where special licenses exist for High Gross Weight Vehicles (HGW), or where classifications are in use when transporting passengers in busses with a certain capacity, Handling Staff will be required to obtain those additional licenses/permits, when their duties involve driving vehicles of said categories.

Airside Service Roads:
Those roadways allocated for the movement of vehicles and equipment between stands and point to point on the airport. Vehicles must not be driven across aircraft stands as a route even if the stand is empty. Vehicles may only enter a stand to service an aircraft parked there or to service the stand itself. Traffic should use airside roads for movement about the airport.

Controlled Crossing:
An approved route used in daytime and good visibility, in order to cross an operational taxiway. The movement of vehicles is controlled by the recognised system of red and green lights controlled by ATC. (Not applicable at some airports.)

Uncontrolled Crossing:
An approved route across an operational taxiway, designed to facilitate the movement of designated service vehicles. Drivers using uncontrolled crossings must stop at the stop lines and ensure that no aircraft is approaching, including aircraft under tow, before proceeding.

Uncontrolled crossings are closed when the ground markings are obliterated by snow or when special low visibility procedures are in force. (Not applicable, or in alternate version, at some airports.)

Aircraft Stand:
An individual parking bay for an aircraft, comprising part of the apron.

4.18.7 IMPORTANT DRIVING HIGHLIGHTS

- No smoking airside, including inside aircraft and vehicles.
- Obey speed limits.
- Obey all signs.

- Do not drink and drive.
- Do not take (prescription) drugs and drive.
- Always give way to aircraft (including those under tow).
- Do not enter the manoeuvring area without permission from ATC.
- Drivers must hold current driving licence.
- Always use dipped headlights at night and in poor visibility.
- Always pick up FOD (foreign object debris) seen on the apron.
- Shut vehicle doors and shutters.
- Secure all equipment in high winds.
- Report all accidents and emergencies by dialling the local airport emergency number.
- Keep current with all operational instructions and notices.
- Be aware of vehicle dimensions especially height.
- Do not reverse on the apron without a guide who must be outside the vehicle.
- Give way to Marshaller(s) whilst parking aircraft.
- Do not drive between aircraft and Marshaller(s) (in or out of vehicles).
- Be aware of pedestrians, passengers or staff.
- Always wear "Hi-Viz" clothing.
- Do not obstruct the emergency exit route of a fuel bowser.
- Do not carry more passengers than there are proper seats. No seat = no ride.

4.19 SURFACE TRANSPORT

Service Providers must provide surface transport in accordance with the relevant contractual arrangements.

Surface transport will normally be required for flight crews and in the event of major disruption it may also be required for passengers.

4.20 AIRCRAFT EXTERIOR CLEANING

A clean aircraft exterior must be maintained in accordance with the engineering department schedule of works.

4.21 AIRCRAFT COOLING& HEATING

Aircraft cabin cooling and heating will be provided under the terms of the Hyperion Aviation agreements, when in place, or when requested by the Flight Deck Crew.

4.22 AIRCRAFT PARKING

4.22.1 GENERAL

If the aircraft is parked for a night stop or otherwise left unattended, all doors shall be locked or sealed, jetway disconnected and/or stairs removed. If unauthorised access has been established, the aircraft must be screened according to Hyperion Aviation Security Manual "SecM Section 3" prior to departure.

The personnel responsible for reception of the aircraft shall supervise and be responsible for parking/placement of the aircraft.

The Commander is responsible to secure proper aircraft reception. When the wheel chocks are in position, the Commander shall be notified, see "GOM 4.8".

4.22.2 PARKING SECURITY

Action shall be taken as to prevent unauthorised access to aircraft during ground stop.

If any unauthorised person(s) have accessed the aircraft or found in the immediate vicinity of the aircraft, or tampering is noticed, Hyperion Aviation OCC and the Commander must be informed prior to departure as to assess the need for security check.

If unauthorised access has been established and the need for security check established, the following areas shall be screened:

- passenger cabin including lavatories and galleys,
- flight deck,
- engines, service doors/points,
- landing gear, wheel wells,
- baggage/cargo compartments, and,
- electronic equipment bays or compartments.

Note: Aircraft Search Forms are found in each company aircraft. Aircraft search procedures are described in Hyperion Aviation's "SecM - Security Manual" Security Manual.

4.22.3 PARKING STOPS SHORTER THAN 2 HOURS

If the aircraft is parked for a night stop or otherwise left unattended, all doors shall be locked or sealed, jetway disconnected and/or stairs removed. If unauthorised access has been established, the aircraft must be screened according to "GOM 4.22.2" and Hyperion Aviation Security Manual procedures prior to departure.

The personnel responsible for reception of the aircraft shall supervise and be responsible for parking of the aircraft. The Commander is responsible to secure proper aircraft reception. When the wheel chocks are in position, the Commander shall be notified.

4.22.3.1 STRONG WIND & PARKING CONDITIONS

In case of high wind velocity and gusts or if the parking area is slippery because of snow or ice it may be necessary to take additional precautionary measures to prevent the aircraft from sliding depending on what type of wheel chocks are used. Ballast bags filled with sand will usually serve this purpose. See also "GOM 4.7".

Note 1: Ballast bags should be filled with same type sand as used on airports during winter operations. Grain of sand should not exceed 3,5 mm diameter.
Note 2: Pitot head covers and engine blanking covers shall always be fitted when weather condition so necessitates

4.22.4 PARKING STOPS LONGER THAN 2 HOURS

In addition to the measures described in "GOM 4.22.3", following will apply:

- The aircraft must be parked with the nose against the wind, if possible.
- There must be ample space between the parked aircraft and the nearest runway or taxi strip.
- Ensure that the parking place is chosen so that the slip-stream from the aircraft performing engine tests or starting up the engines, does not affect the parked aircraft.
- Wheel chocks must be placed in front of and behind the main wheels.
- If the weather conditions are unfavourable, e.g. strong wind or slippery ground, special precaution must be taken.
- Make sure that the wheel chocks available serve the purpose, otherwise additional precautions must be taken to secure the aircraft properly. Ballast bags filled with sand can often be successfully used if the ground is slippery.
- Install all covers, plugs and shields as determined by aircraft status and weather conditions. (Task performed by Hyperion Aviation Crews)
- Equipment, stairs and ladders must be removed to a safe distance from the aircraft.
- Aircraft left idle overnight shall preferably be parked in an illuminated area.
- Aircraft left parked at unattended areas of an airport or at unmanned airports shall be sealed according to the procedures laid down in the Hyperion Aviation Security Manual.

During darkness in very dark unlit ramp conditions it may prove necessary to mark the aircraft position with lamps. The Airport Authorities must be contacted for permission in each separate case (when this equipment is available). The final decision lies with the Commander.

5 LOAD CONTROL & AIRCRAFT DISPATCH

5.1 LOAD CONTROL PRINCIPLES

The safety of a flight requires accurate planning, recording and reporting of all actual load boarded on an aircraft. Documented communication is required to ensure correct weight & balance calculations are conducted prior to an aircraft's departure.

This shall include:

- Aircraft weight and balance conditions that are correct and within limits;
- Aircraft loaded in accordance with applicable regulations and specific loading instructions for the flight;
- Dissemination of dangerous goods and other special load information applicable to each flight;
- Information, to include last minute changes, that is in agreement with the actual load on the aircraft and presented on a final load sheet.

5.2 REGULATORY REQUIREMENTS

Operational load control records must be retained in accordance with all applicable regulatory and operating airline requirements to include:

- Training and qualification records for personnel that perform load control functions;
- Load control documentation for each flight in accordance with Hyperion Aviation's "OM A".

The Load Control process must have an audit trail for each departure.

- Specific loading positions are identified within each aircraft type for the purpose of planning and positioning the load in the aircraft.
- Forms used in the Load Control process must be in compliance with the Aircraft's Operations manual.

5.3 LOAD CONTROL PROCESS

5.3.1 SEATING POLICY PROCEDURES

In accordance with Hyperion Aviation's "OM A", the mass and balance form (load sheet) is prepared to optimize a correct weight & balance and centre of gravity. In most, but not in all cases this assumes that passengers are seated from the front to the rear of the aircraft, starting from the group of seats; club arrangement.

The Commander will ensure that passengers, who occupy a seat from which they can proceed directly to the exit without entering an aisle or passing around an obstruction, are reasonably fit, strong and able to assist the rapid evacuation of the aircraft in an emergency after an appropriate briefing by the crew.

The following passengers should not occupy such a seat:

- passengers suffering from obvious physical or mental disability to the extent that they would have difficulty in moving quickly if asked to do so;
- passengers who are either substantially blind or substantially deaf to the extent that they might not readily assimilate printed or verbal instructions given;
- passengers who because of age or sickness are so frail that they have difficulty in moving quickly;
- passengers who are so obese that they would have difficulty in moving quickly or reaching and passing through the adjacent emergency exit;
- children (whether accompanied or not) and infants;
- deportees, inadmissible passengers or persons in custody; and
- passengers with animals.

5.3.2 LOAD SHEET PREPARATION

By default, Hyperion Aviation uses manual load sheets for all their flights. Refer to O.M.A 8.1.9

5.3.3 LMC PROCEDURES

Following last minute change (LMC) procedures are defined and described in Hyperion Aviation's Operations Manual 8.1.93 O.M.A:

5.3.4 LOADSHEET - CHECKS

The Fleet Manager reports to the Flight Operations Manager and has the following duties and Responsibilities related to Load Control:

- He shall ascertain the accuracy of the electronic mass and balance tool for his fleet by producing a manual load sheet and cross checking this with the electronic sheet for the same conditions at least once every 6 months. The evidence records shall be kept for 24 months. He shall report any findings or observations made to the Compliance Monitoring manager.

5.3.5 LOADSHEET (MASS AND BALANCE) RETENTION PERIOD

In accordance with Hyperion Aviation's "OM/A", Mass and Balance (Load sheet) forms will be retained for a period of 3 months. The Commander shall make sure that Mass and Balance forms are returned to Hyperion Aviation OCC in the flight folder after the flight, in the sequence as listed.

5.4 AIRCRAFT DISPATCH & TURNAROUND PROCEDURES

5.4.1 INTRODUCTION

Aircraft Dispatch or Turnaround Coordination is a process involving the planning, coordination and post departure reconciliation of a flight. The task of the Aircraft Dispatcher is to organise and plan the aircraft turnaround, to effectively and proactively ensure that the various activities are performed in a safe and timely manner.

Corporate/business aviation aircraft operations handled through FBO/GSP stations differ vastly from commercial airlines operations; therefore, aircraft dispatch procedures presented here will only deal with those tasks which we expect our FBO/GSP suppliers to render to our aircraft and crew(s).

5.5 THE AIRCRAFT DISPATCH PROCESS

5.5.1 FLIGHT PLANNING

Handling Staff working in the FBO/GSP operations department will familiarise themselves on all relevant information on the respective details of the planned Hyperion Aviation flight(s) turnaround/arrival.

This will include but is not necessarily limited to:

- Planned aircraft and stand/parking position (hangars).
- ETA/ETD (Appropriate ATC slot if applicable).
- Any operational restrictions or other special information.
- Promulgate appropriate ETD to all sections (airport, ramp team, fuel suppliers).
- All aspects of the outbound load (passenger loads)
- Flight plan/fuel requirements for departure flight.
- Passenger needs (transport).
- Crew needs (HOTAC, transport, catering order, etc.).
- Special requests (if any).

5.5.1.1 DELAY NOTIFICATION

The FBO/GSP must inform the respective Hyperion Aviation OCC of any delays or constrains that can affect crews, aircraft and especially customers/passengers.

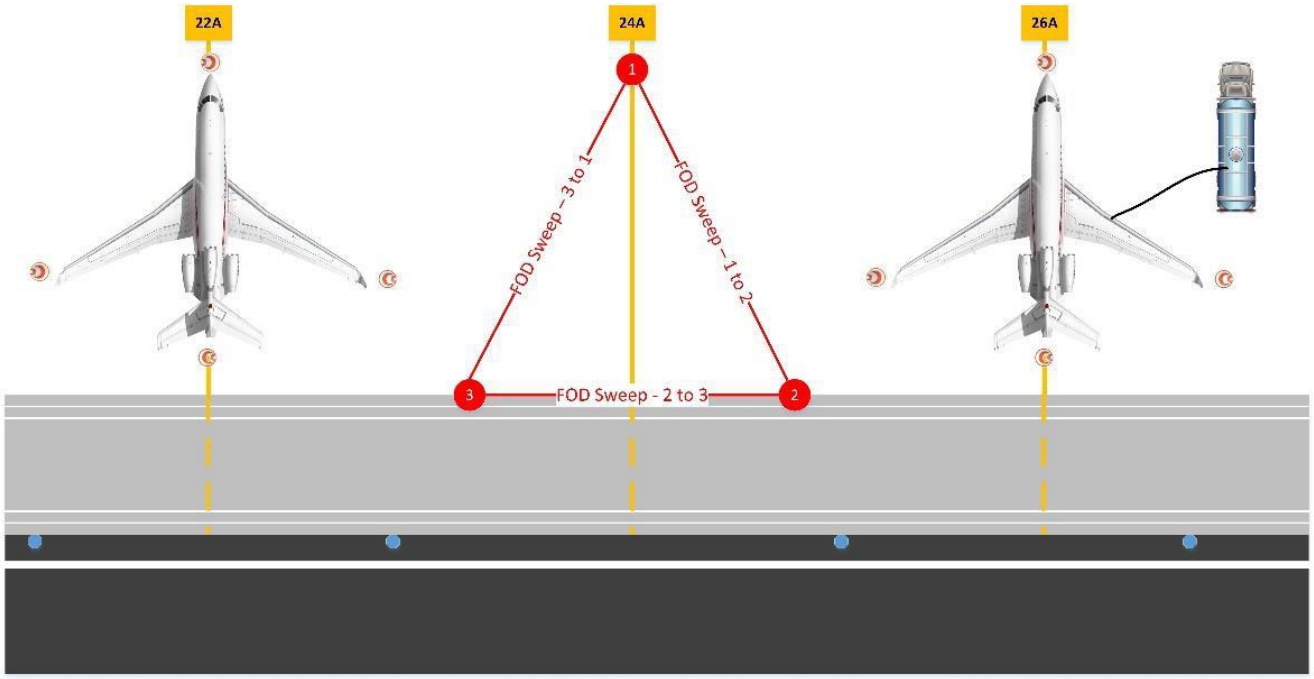
The following operational obstacles which could cause delays should be notified:

- Weather conditions;
- Ramp conditions;
- Ground equipment conditions;
- Snow removal plan;
- Runways and taxiways condition;
- Aircraft parking areas, lack of;
- Landside access roads congested;
- Ground equipment unserviceable;
- Average delays excepted;
- De-Icing equipment unserviceable;
- De-icing Fluid not-available;
- Airport terminal conditions;
- NOTAMS;
- Airport Operational hours change;
- Any other relevant subject that could affect the departure time.

5.5.2 AIRCRAFT ARRIVAL

Handling Staff working in the FBO/GSP operations department should liaise with the Ramp Team Leader regarding any anticipated problems with manning levels or equipment that have not already been advised and/or resolved.

Immediately prior to arrival the nominated ramp agent must inspect the aircraft stand and ensure that it is free from any FOD or obstruction or contamination that may impede safe access by the aircraft or passengers start at position 1 (this is the stop point for the aircraft type), walk in a straight line toward position 2, scanning the area to the left and right of your path. All objects that could damage the aircraft or be ingested in to the engines are to be collected and disposed of in a suitable container. When at position 2 turn and continue to position 3 before returning to position 1 to end the FOD sweep.



When the aircraft pulls on stand ensure that all staff remains clear of the danger areas until the anti-collision beacon is switched off. The only exclusion may be FBO/GSP ramp staff performing servicing functions that require their presence, e.g. supplying a GPU to an aircraft.

When steps have been correctly deployed and only when it is safe to do so, FBO/GSP Handling Staff should give clearance to the Commercial Attendant or Flight Crew that it is safe to commence disembarkation.

5.5.3 THE AIRCRAFT TURNAROUND

Coordination:
FBO/GSP Handling Staff (Turnaround co-ordinator) are responsible for maintaining the timely arrival and coordination of services to avoid a departure delay.

FBO/GSP Handling Staff (Turnaround co-ordinator) will ensure that any information that may affect the actions of other departments, is given in a timely and proactive manner.

Ramp Procedures:
Whilst punctuality is important, it must be remembered that some ramp functions have in-built safety procedures. The FBO/GSP Dispatcher must not compromise these procedures in the pursuit of punctuality. The FBO/GSP Aircraft

Dispatcher should not interfere or become involved in any task for which he/she has not been suitably trained as this could have implications for their safety, the safety of others and the company as a whole.

Information:
In the event of a delay, information as to the reason and expected duration of the delay must be passed to passenger services (FBO reception/lounge desk) immediately. If detailed information is not known, then a time when further information will be available should be sought from the respective Hyperion Aviation OCC. Under no circumstances should passenger services have a lack of, or inadequate information.

Again, particular attention must be paid to information being updated at the time it is due, the FBO/GSP Aircraft Dispatcher is the sole authority, subject to consultation with appropriate sources, e.g. aircraft Commander, Engineering, the respective Hyperion Aviation or OCC, etc. for the provision of such information and must ensure accuracy.

Load Reconciliation:

The FBO/GSP Aircraft Dispatcher will ensure that the aircraft load and all requisite manifests are reconciled completely and accurately. It is mandatory that actual bag weights are used for the production of the load information given to the Commander in order to produce his load sheet (weight & balance). The FBO/GSP Dispatcher will confirm with the ramp team leader (or loading supervisor) that the LIR has been completed correctly and accurately shows all loads within the holds, insofar as loading was not performed by the flight crew.

Departure Checks:
The following must be checked before an aircraft can depart:

- Load information is complete and accurately accounts for all items aboard. (Commander prepares load sheet)
- The Aircraft load sheet indicates the correct amount and placement of load.
- The Loading Instruction/Report correctly reflects that the Loading Instructions have not been deviated from, unless necessary exceptions were required and have been recorded.
- All passengers are accounted for.
- No unaccompanied baggage is on board.
- Immigrations & Customs documentation has been completed as required.

5.5.4 POST FLIGHT RECONCILIATION

The following tasks should be completed by the FBO/GSP Dispatcher immediately after the Hyperion Aviation/or flight has departed.

- Check the aircraft stand for FOD.
- Complete a Delay Report, if required.
- Collate all documentation into a 'Flight File'.
- Send aircraft movement message (MVT) (+5 minutes after departure).

5.6 FLIGHT DOCUMENTATION

5.6.1 PRE-DEPARTURE DOCUMENTATION

The main document(s) which have to be completed BEFORE the departure of each flight are and provided to the commander and OCC where required:

- Aircraft Mass and Balance Manifest (Load sheet) - The CAA requires that every commercial flight that departs must have a load sheet completed by a competent person (the Commander the load sheet within Hyperion Aviation) and is signed by the Commander. The aircraft load sheet is the single manifest showing the amount and placement of all variable operational items, such as crew, catering, traffic load, passengers, baggage, cargo etc. The signature of the person completing the load sheet is certifying that the aircraft has been loaded with the amount and placement of the load as detailed. It is a legal document and must only be signed and presented to the Aircraft Commander when all loads are accounted for. One copy of the manual load sheet is to be presented to the FBO/GSP Dispatcher, which is to be retained with flight documentation at the departure station.
- Special load information shall be communicated to the commander of the flight.
- NOTOC and Dangerous Goods acceptance checklist shall be provided to the Commander and OCC before the flight is allowed to be dispatched.
- Aircraft Search Form - Prepared by the flight crew, and one copy handed to the FBO/GSP Dispatcher, which is to be retained with flight documentation at the departure station for minimum 24hrs.

5.6.2 STATION FLIGHT FILE

This contains all documentation and emails appropriate to the particular flight, which must be filed and retained, in paper or electronic format, at the station of origin for a period of not less than 3 months. All expired Hyperion Aviation

documentation including manuals and flight files, must be disposed of by a secure means such as shredding or secure waste disposal.

The Flight File must contain:

- Movement signal (MVT).
- Passenger Manifest.
- Arrival signal (AA).
- Load sheet.
- Loading Information to Crew. (Baggage weight/pieces)
- Aircraft (Security) Search form.

5.7 AIRCRAFT DELAY REPORTING

The purpose of delay reporting is to provide statistical data as to the reasons why flights are delayed and to identify trends or areas that require improvement or representation.

When allocating delay reasons, it is particularly important to identify the original cause that a flight was late, rather than the last effects that were seen. FBO/GSP Dispatchers should also avoid duplicating the period of a delay, e.g. Late Passengers +5 minutes and Late Baggage +5 minutes, does not justify a 10-minute delay, as if both functions were delayed 5 minutes the aircraft should have only departed 5 minutes late.

Similarly, if a delay results in an ATC slot being lost then the delay is attributable to that section or Company only up to the point that the original reason for delay was resolved, any further delay must be attributable to ATC.

5.7.1 AIRCRAFT MOVEMENT DELAY CODES

Note: reference: IATA AHM 730

Hyperion Aviation uses standard IATA delay codes as listed below:

OTHERS

00-05	AIRLINE INTERNAL CODES
06 (OA)	NO GATE/STAND AVAILABILITY DUE TO OWN AIRLINE ACTIVITY
09 (SG)	SCHEDULED GROUND TIME LESS THAN DECLARED MINIMUM GROUND TIME

PASSENGER AND BAGGAGE

11 (PD)	LATE CHECK-IN, acceptance after deadline
12 (PL)	LATE CHECK-IN, congestions in check-in area
13 (PE)	CHECK-IN ERROR, passenger and baggage
14 (PO)	OVERSALES, booking errors
15 (PH)	BOARDING, discrepancies and paging, missing checked-in passenger
16 (PS)	COMMERCIAL PUBLICITY/PASSENGER CONVENIENCE, VIP, press, ground meals and missing personal items
17 (PC)	CATERING ORDER, late or incorrect order given to supplier
18 (PB)	BAGGAGE PROCESSING, sorting etc.
19 (PW)	REDUCED MOBILITY, boarding / deboarding of passengers with reduced mobility.

CARGO AND MAIL

21 (CD)	DOCUMENTATION, errors etc.
22 (CP)	LATE POSITIONING
23 (CC)	LATE ACCEPTANCE
24 (CI)	INADEQUATE PACKING
25 (CO)	OVERSALES, booking errors
26 (CU)	LATE PREPARATION IN WAREHOUSE

27 (CE) DOCUMENTATION, PACKING etc (Mail Only)
28 (CL) LATE POSITIONING (Mail Only)
29 (CA) LATE ACCEPTANCE (Mail Only)

AIRCRAFT AND RAMP HANDLING
31 (GD) AIRCRAFT DOCUMENTATION LATE/INACCURATE, weight and balance, general declaration, Pax manifest, etc.
32 (GL) LOADING/UNLOADING, bulky, special load, cabin load, lack of loading staff
33 (GE) LOADING EQUIPMENT, lack of or breakdown, e.g. container pallet loader, lack of staff
34 (GS) SERVICING EQUIPMENT, lack of or breakdown, lack of staff, e.g. steps
35 (GC) AIRCRAFT CLEANING
36 (GF) FUELLING/DEFUELLING, fuel supplier
37 (GB) CATERING, late delivery or loading
38 (GU) ULD, lack of or serviceability
39 (GT) TECHNICAL EQUIPMENT, lack of or breakdown, lack of staff, e.g. pushback

TECHNICAL AND AIRCRAFT EQUIPMENT
41 (TD) AIRCRAFT DEFECTS.
42 (TM) SCHEDULED MAINTENANCE, late release.
43 (TN) NON-SCHEDULED MAINTENANCE, special checks and/or additional works beyond normal maintenance schedule.
44 (TS) SPARES AND MAINTENANCE EQUIPMENT, lack of or breakdown.
45 (TA) AOG SPARES, to be carried to another station.
46 (TC) AIRCRAFT CHANGE, for technical reasons.
47 (TL) STAND-BY AIRCRAFT, lack of planned stand-by aircraft for technical reasons.
48 (TV) SCHEDULED CABIN CONFIGURATION/VERSION ADJUSTMENTS.

DAMAGE TO AIRCRAFT & EDP/AUTOMATED EQUIPMENT FAILURE
51 (DF) DAMAGE DURING FLIGHT OPERATIONS, bird or lightning strike, turbulence, heavy or overweight landing, collision during taxiing
52 (DG) DAMAGE DURING GROUND OPERATIONS, collisions (other than during taxiing), loading/off-loading damage, contamination, towing, extreme weather conditions
55 (ED) DEPARTURE CONTROL
56 (EC) CARGO PREPARATION/DOCUMENTATION
57 (EF) FLIGHT PLANS
58 (EO) OTHER AUTOMATED SYSTEM

FLIGHT OPERATIONS AND CREWING
61 (FP) FLIGHT PLAN, late completion or change of, flight documentation
62 (FF) OPERATIONAL REQUIREMENTS, fuel, load alteration
63 (FT) LATE CREW BOARDING OR DEPARTURE PROCEDURES, other than connection and standby (flight deck or entire crew)
64 (FS) FLIGHT DECK CREW SHORTAGE, sickness, awaiting standby, flight time limitations, crew meals, valid visa, health documents, etc.
65 (FR) FLIGHT DECK CREW SPECIAL REQUEST, not within operational requirements
66 (FL) LATE CABIN CREW BOARDING OR DEPARTURE PROCEDURES, other than connection and standby
67 (FC) CABIN CREW SHORTAGE, sickness, awaiting standby, flight time limitations, crew meals, valid visa, health documents, etc.
68 (FA) CABIN CREW ERROR OR SPECIAL REQUEST, not within operational requirements
69 (FB) CAPTAIN REQUEST FOR SECURITY CHECK, extraordinary

WEATHER
71 (WO) DEPARTURE STATION

72 (WT) DESTINATION STATION
73 (WR) EN ROUTE OR ALTERNATE
75 (WI) DE-ICING OF AIRCRAFT, removal of ice and/or snow, frost prevention excluding unserviceability of equipment
76 (WS) REMOVAL OF SNOW, ICE, WATER AND SAND FROM AIRPORT
77 (WG) GROUND HANDLING IMPAIRED BY ADVERSE WEATHER CONDITIONS ATFM + AIRPORT + GOVERNMENTAL AUTHORITIES

AIR TRAFFIC FLOW MANAGEMENT RESTRICTIONS
81 (AT) ATFM due to ATC EN-ROUTE DEMAND/CAPACITY, standard demand/capacity problems
82 (AX) ATFM due to ATC STAFF/EQUIPMENT EN-ROUTE, reduced capacity caused by industrial action or staff shortage, equipment failure, military exercise or extraordinary demand due to capacity reduction in neighbouring area
83 (AE) ATFM due to RESTRICTION AT DESTINATION AIRPORT, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights
84 (AW) ATFM due to WEATHER AT DESTINATION AIRPORT AND GOVERNMENTAL AUTHORITIES
85 (AS) MANDATORY SECURITY
86 (AG) IMMIGRATION, CUSTOMS, HEALTH
87 (AF) AIRPORT FACILITIES, parking stands, ramp congestion, lighting, buildings, gate limitations, etc.
88 (AD) RESTRICTIONS AT AIRPORT OF DESTINATION, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights
89 (AM) RESTRICTIONS AT AIRPORT OF DEPARTURE WITH OR WITHOUT ATFM RESTRICTIONS, including Air Traffic Services, start-up and pushback, airport and/or runway closed due to obstruction or weather, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights

REACTIONARY
91 (RL) LOAD CONNECTION, awaiting load from another flight
92 (RT) THROUGH CHECK-IN ERROR, passenger and baggage
93 (RA) AIRCRAFT ROTATION, late arrival of aircraft from another flight or previous sector
94 (RS) CABIN CREW ROTATION, awaiting cabin crew from another flight
95 (RC) CREW ROTATION, awaiting crew from another flight (flight deck or entire crew)
96 (RO) OPERATIONS CONTROL, re-routing, diversion, consolidation, aircraft change for reasons other than technical

MISCELLANEOUS
97 (MI) INDUSTRIAL ACTION WITH OWN AIRLINE
98 (MO) INDUSTRIAL ACTION OUTSIDE OWN AIRLINE, excluding ATS
99 (MX) OTHER REASON, not matching any code above

6 AIRSIDE SAFETY - OPERATIONAL OVERSIGHT

6.1 GENERAL

Note: reference: IATA AHM621, AHM1110

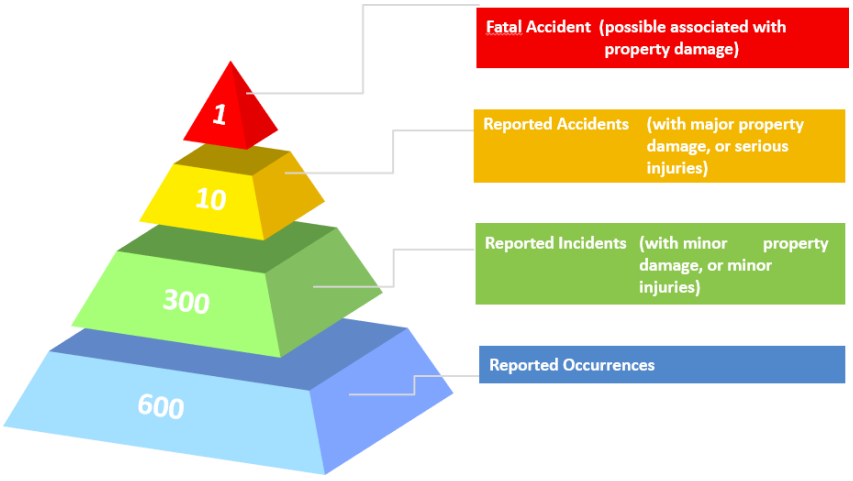
When accidents, incidents and occurrences are caused in airside areas, procedures and processes need to be in place to:

- Deal with the aftermath and effects.
- Report and record all the pertinent details to enable subsequent investigation.
- Ensure emergency services attendance.
- Establish safe temporary closures of the area affected.
- Clean up and return to service.
- Communicate with other airport users.

Once the immediate health and safety needs of the people involved have been dealt with, a more comprehensive report should be completed. This should include all relevant details in order to enable a full investigation to identify the root cause(s). Full details of all accidents, incidents or occurrences should be recorded in a database to enable queries and detailed analysis.

Consistent reporting is extremely important as it will allow trends to be observed. Research into general industrial safety indicated that for every 600 reported occurrences with no injury or damage, there are on average:

- 300 incidents involving minor property damage or minor injuries.
- 10 accidents involving major property damage or serious injuries.
- 1 major or fatal injury.



To the extent possible, all accidents, incidents and occurrences should be investigated in order to correctly identify the root cause(s). This is essential to finding solutions to prevent future accidents, incidents or occurrences. Often a number of factors occurring at the same time can cause an accident, incident or occurrence. These can be, for example:

- Misunderstood communication.
- Inadequate signage, markings or lights.
- Inadequate training of those involved.
- Trained staff not acting in the way they were trained.
- Too infrequent refresher training.
- Inadequate equipment / mechanical condition / mechanical failure.
- Tasks carried out too quickly with inadequate resources.
- Failure to use PPE.

- Inadequate risk assessment.
- Human and organizational factors.
- Non-adherence to Standard Operating Procedures (SOP).
- Inadequate response to changing circumstances.

On a periodic basis an analysis of all accidents, incidents or occurrences in the FBO/GSP incident/accident database should be undertaken. Investigative trend analysis can examine the databases from a number of perspectives, which may include:

- Airline.
- Handling agent.
- Stand number / location.
- Time of day / night / year.
- Physical and weather conditions.
- Staff training and experience.
- Aircraft type / vehicle type / equipment type.
- Type of accident, incident or occurrence, e.g.: slips or trips, falls from height, jet-blast, baggage loader contacting aircraft fuselage, etc.

The primary use of this data is for prevention: understanding events in the past enables steps to be taken to prevent the recurrence of a similar event in the future. In general, the data will reveal the magnitude of a specific problem; determine the overall costs; analyse trends to direct future preventative actions; and pinpoint particular tasks that are "high risk". If specific trends become obvious for any of the above factors these will point to aspects of the activities that are in need of review. Analysis can be presented in a number of ways:

- High risk area (including 'hot spots') maps of accidents, incidents and occurrence locations.
- Graphs of numbers of accidents, incidents or occurrences per month.
- Graphs of each type of accidents, incidents or occurrences per month.
- Graphs of accidents, incidents and occurrences factored per 1,000 or per 10,000 aircraft movements.

Note: It should be noted that the greatest deficiency in accident, incident and occurrence investigation is the lack of competent follow-up.

6.1.1 INTRODUCTION

FBO/GSP companies are contractually obliged to operate an effective supervision regime within the ramp environment. This should consist of following:

Risk Assessments:
FBO/GSP employers are required to carry out risk assessments relating to the Management of Health and Safety at work.

Risk Assessment Review:
A periodic review by FBO/GSP management, of ramp safety risk assessments should be undertaken to accommodate new procedures, processes or equipment change. In the event of an aircraft ground incident the risk assessment must be reviewed as the incident could indicate a hazard which had not been considered.

Ramp Safety Audits:

It is a requirement that FBO/GSP management provide a sufficient level of supervision and oversight of the ramp operation, to ensure that turnarounds are being managed safely and consistently in accordance with the appropriate ground handling procedures. Where there are violations of this, FBO/GSP management must put corrective measures in place to ensure that there is no reoccurrence.

It is a requirement that supervision includes the use of turnaround audits on a regular basis. Such turnaround audits offer the ability to identify and correct specific failures, and to track trends. All findings on audits must be followed up to ensure

corrective and preventive action is put in place to prevent a repeat occurrence. The results of audits and trends must be identified to the respective Hyperion Aviation NP Ground Operations when requested.

6.1.2 OPERATIONAL REQUIREMENTS

- Supervision personnel must be trained and qualified to perform the assigned functions.
- Assigned individuals will provide oversight of personnel conducting, airside operations.
- An assigned individual will oversee the aircraft turnaround during ramp/apron activities ensuring the aircraft is handled and serviced.
- If applicable checklists are provided, they shall be completed as required by the individual assigned to provide oversight.
- Individuals assigned to oversee ground handling operations must have oversight on airside operations, ground safety and all operations relating to comfort and schedule.

6.1.3 EQUIPMENT INSPECTIONS

In order to protect people and aircraft, all companies at airports should ensure that:

- Equipment is suitable (i.e. with regard to its initial integrity, the place where it will be used and the purpose for which it will be used).
- Equipment is maintained in a safe condition.
- Equipment is inspected in certain circumstances to ensure that it is and continues to be, safe for use.

Any inspection should be carried out by a competent person and a record kept until the next inspection.

6.2 AIRSIDE SAFETY OPERATIONAL OVERSIGHT INTRODUCTION

To ensure ground operational safety, all station activities, including, if applicable, those outsourced to an external third-party ground service provider (FBO/GSP/GSP) or its subcontractors, shall be concluded under the direct oversight of supervision personnel.

6.3 SUPERVISION SCOPE

Oversight for an aircraft arrival/departure shall include, but is not limited to the following activities:

- Aircraft, vehicles and GSE operations and parking.
- Arrival.
- Baggage Handling.
- Cabin Equipment.
- Catering Ramp Handling.
- De-/Anti-Icing services and snow removal.
- Departure.
- Exterior Cleaning.
- Load Control accuracy. (LIR, Load sheet, another document as applicable)
- Aircraft loading & unloading.
- Aircraft servicing (e.g. potable water, lavatory, cleaning, catering).
- Aircraft fuelling.
- Aircraft movement (arrival, departure & towing).
- Passenger embarkation/disembarkation.
- Excess cabin baggage handling.
- All personnel and GSE involved in the operation to ensure compliance with safety procedures.

6.4 RAMP SUPERVISION REQUIREMENTS

The table below defines sample elements that require supervision by individuals assigned to oversee ground handling operations.

#	Action	Checked	Remarks
1	Pre-flight brief conducted regarding flight requirement(s) and services as needed.		
2	Pre-arrival check parking position free of Foreign Object Damage (FOD), obstacles and/or spillage.		
3	Sufficient personnel with PPE and necessary ground support equipment available and ready.		
4	All GSE and personnel positioned outside the aircraft clearance line.		
5	Ensure manpower correctly positioned for arrival.		
6	Ensure Marshaller(s) correctly positioned, if required.		
7	Personnel clear of the aircraft, until anti-collision lights have been switched off.		
8	Ensure aircraft chocked and coned appropriately.		
9	Ensure an arrival external check prior to approach of any ground support equipment.		
10	Ensure equipment properly positioned and operated.		
11	Ensure holds are offloaded and commodities correctly handled as required.		
12	Ensure all cargo holds fully offloaded and inspected for damage.		
13	Passenger steps set to correct height and all safety devices are installed before opening cabin access doors.		
14	Aircraft cabin access door operation by authorized and qualified person.		
15	During passenger (dis)-embarkation, passenger movement protected and guided in walkways between the aircraft and bus or terminal.		
16	Passenger walkways clean of obstacles and free of undesired contaminated substances.		
17	Passenger walkways clean of obstacles and free of undesired contaminated substances.		
18	Ensure “FUEL SAFETY ZONES” are respected.		
19	Ensure safety precautions for refuelling with passengers adhered to, if applicable.		
20	Ensure on-load started and Commander in possession of correct load information.		
21	Ensure condition of load inspected prior to loading.		
22	Ensure baggage and cargo loaded and handled in accordance with Commander’s instructions (if required).		
23	Ensure DG correctly handled, segregated, secured and stowed.		
24	Ensure holds are checked to verify load and lock/nets configuration (mainly on EMB190ERJ aircraft)		
25	Ensure final load information provided to Flight crew as required.		
26	Ensure GSE removal procedures followed.		
27	Ensure final ramp inspection and aircraft walk-around check performed.		
28	Ensure pre-departure preparations are conducted.		
29	Chocks and cones removal procedures followed.		
30	Ensure departure sequence conducted as required.		
31	Ensure post departure activities conducted as required with appropriate document retention.		

6.5 PRECISION TIME SCHEDULE

A sample precision time schedule is a graphical display of all ground handling activities and duties to be conducted for an aircraft turnaround.

Note: Hyperion Aviation currently do not require nor produce this precision time schedule for their fleet(s).

7 HEALTH, SAFETY AND ENVIRONMENT - (HSE/OHS)

7.1 INTRODUCTION

Accidents causes by manual handling often account for a very high percentage (approx. 40%) of all reported accidents; most commonly these are sprains or strains particularly of the back. Sprains and strains arise from the incorrect application and/or prolonged use of bodily force. Poor posture and excessive movement are important contributory factors. Many manual handling injuries are cumulative rather than attributed to one single injury. A full recovery is not always made; the result can be physical impairment or even permanent disability.

Manual handling in an airport environment involves any activity that requires the use of force exerted by a person to lift, lower, push, pull, carry or otherwise move or hold an object. Most FBO/GSP ramp handling departments have tasks that involve manual handling, whether it's (un)loading or carrying baggage and boxes or moving larger(s) pieces of equipment in a workshop or aircraft.

HSE/HSSE/OHS regulations specify that all manual handling activities should be avoided when practical to do so and implement controls/measures such as the use of mechanical aids when it is impossible to avoid such activities.

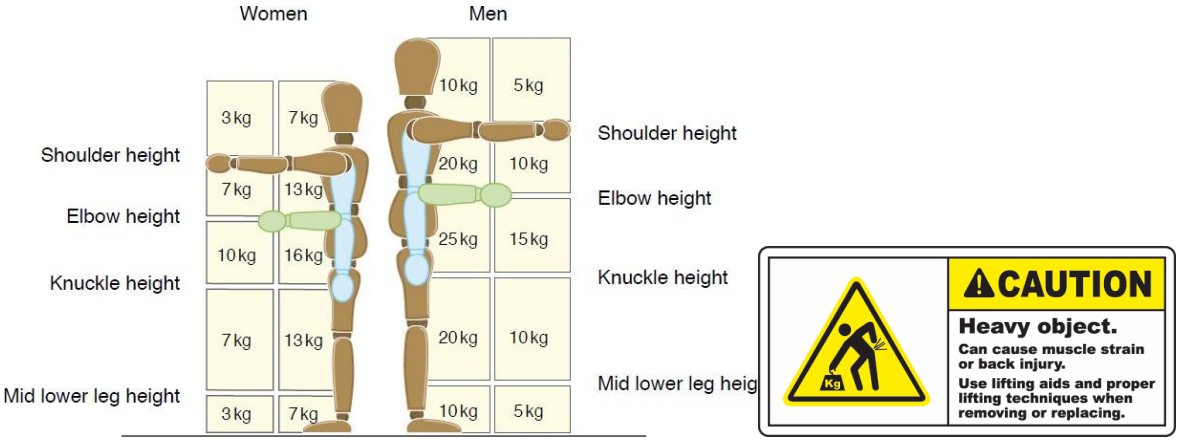
This chapter has been developed to provide basic practical guidance and awareness on:

- lifting and manual handling for handling staff working on the ramp and in/around aircraft.
- slipping, tripping and falling, when cleaning aircraft interiors,
- potential biohazards when cleaning aircraft interiors & hand washing techniques
- hearing loss hazards,
- hazards from fuel contamination.

7.2 LIFTING & LOWERING

Maximum Handling Loads

Most HSE/HSSE/OHS regulations do not specify safe weights because capability is so variable. The figure shown above provides a guide to the reduction in capability when lifting loads to different heights and distances from the body. It assumes a 25kg load to be within your capability when a simple straight lift to waist height is involved. No single person should be required to lift, lower or carry loads over 25kg, furthermore IATA specifies 23kg as the maximum baggage weight. This limit would only apply when the load is within the individual's capabilities and when no other risk factors are present e.g. bending.



FBO/GSP Handling Staff should remember that the ability to lift may be increased if they have been appropriately trained in lifting techniques, or, it may be considerably reduced in ill health or if the working environment conditions are in any way adverse e.g. too hot/cold, slippery/uneven floors, difficult to grab the load.

The risk of injury increases as the weight of the load increases. However, the risk comes not just from the weight of the object being handled but also the way it is handled e.g. twisting, reaching, repeating task frequently.

Some basic tips to prevent accidents:

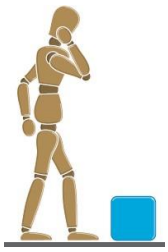
- Assess the object to be moved, determine its weight and look for sharp edges and check if the weight evenly distributed?
- Plan the job.
- Check the route is free of obstacles, obstructions and slipping or tripping hazards.
- Get help, if you have any doubt about carrying the object then get help.
- Check that you have all suitable tools to help or lifting aids if necessary.
- Get a good grip, decide in advance how best to hold the object.
- Protect your hands and feet. Keep your back straight.
- Lift with your legs, use your strongest muscles to help you lift the object. Avoid unnecessary pressure on the spine.
- Avoid twisting, move your feet instead.
- Upward movement begins by raising the head.
- Hold the load close to the centre of your body.
- Minimise lifts above your shoulders or below your knees.
- If at any time the object is deemed too heavy, stop immediately.
- Avoid becoming over-tired, frequent lifting or lowering is demanding work and can result in cumulative stress.
- When lifting in a team, work with someone of similar build and height if possible. Nominate one person to coordinate the task.

If you are being rushed, politely ask the other person to “stand-by” whilst you complete your task.

7.3 GOOD HANDLING TECHNIQUES

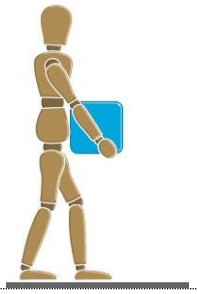
7.3.1 LIFTING

Shown here are some practical points to remember when lifting loads.

	
Think before lifting/handling. Plan the lift. Can handling aids be used? Where is the load going to be placed? Will help be needed with the load? Remove obstructions such as discarded wrapping materials. For a long lift, consider resting the load midway on a table or bench to change grip.	Adopt a stable position. The feet should be apart with one leg slightly forward to maintain balance (alongside the load, if it is on the ground). FBO/GSP Handling Staff should be prepared to move their feet during the lift to maintain their stability. Avoid tight clothing or unsuitable footwear, which may make this difficult.

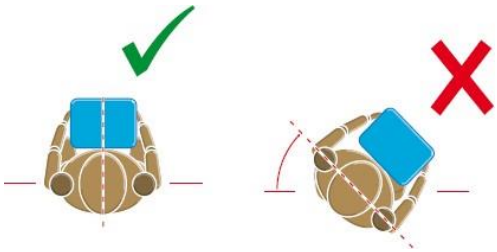
Get a good hold.

Where possible, the load should be hugged as close as possible to the body. This may be better than gripping it tightly with hands only.
Start in a good posture. At the start of the lift, slight bending of the back, hips and knees is preferable to fully flexing the back (stooping) or fully flexing the hips and knees (squatting).
Don't flex the back any further while lifting. This can happen if the legs begin to straighten before starting to
raise the load.



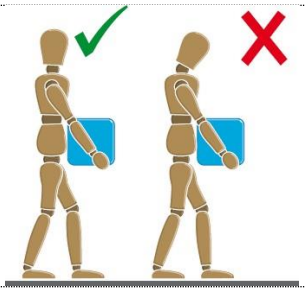
Keep the load close to the waist.

Keep the load close to the body for as long as possible while lifting. Keep the heaviest side of the load next to the body. If a close approach to the load is not possible, try to slide it towards the body before attempting to lift it.

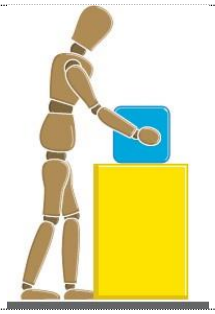


Avoid twisting the back or leaning sideways.

Especially while the back is bent. Shoulders should be kept level and facing in the same direction as the hips. Turning by moving the feet is better than twisting and lifting at the same time.



Keep the head up when handling. Look ahead, not down at the load, once it has been held securely.
Move smoothly. The load should not be jerked or snatched as this can make it harder to keep control and can increase the risk of injury.
Don't lift or handle more than can be easily managed. There is a difference between what people can lift and what they can safely lift. If in doubt, seek advice or get
help.



Put down, then adjust.

If precise positioning of the load is necessary, put it down first, then slide it into the desired position.

	Avoid twisting back or leaning sideways when carrying load. Keep your head up when handling. Look ahead, not down at the load, see & know where you are walking.

7.3.2 PUSHING & PULLING

Here are some practical points to remember when loads are pushed or pulled.

Handling Devices:
Aids such as barrows and trolleys should have handle heights that are between the shoulder and waist. Devices should be well maintained with wheels that run smoothly. The law requires that equipment is maintained. When you buy new trolleys etc., make sure they are good quality with large diameter wheels made of suitable material and with castors, bearings etc. which will last with minimum maintenance. Consulting your employees and safety representatives will help, as they know what works and what doesn't.

Force:
As a rough guide the amount of force that needs to be applied to move a load over a flat, level surface using a well-maintained handling aid is at least 2% of the load weight. For example, if the load weight is 400kg, then the force needed to move the load is 8kg. The force needed will be larger, perhaps a lot larger, if conditions are not perfect (e.g. wheels not in the right position or a device that is poorly maintained). The operator should try to push rather than pull when moving a load, provided they can see over it and control steering and stopping.

Slopes:
FBO/GSP Handling Staff should get help from another worker whenever necessary, if they have to negotiate a slope or ramp, as pushing and pulling forces can be very high. For example, if a load of 400kg is moved up a slope of 1 in 12 (about 5°), the required force is over 30kg even in ideal conditions - good wheels and a smooth slope. This is above the guideline weight for men and well above the guideline weight for women.

Uneven Surfaces:
Moving an object over soft or uneven surfaces requires higher forces. On an uneven surface, the force needed to start the load moving could increase to 10% of the load weight, although this might be offset to some extent by using larger wheels. Soft ground may be even worse.

Stance and Pace:
To make it easier to push or pull, employees should keep their feet well away from the load and go no faster than walking speed. This will stop them becoming too tired too quickly.

7.4 CATERING & CLEANING HANDLING - HAZARDS

7.4.1 SLIPS, TRIPS AND FALLS

Many incidents and accidents involving slips, trips and falls occur (too) frequently. Adverse weather, slippery surfaces, unseen obstacles, loss of attention and haste have all caused serious harm injuries.

FBO/GSP Handling Staff are frequently busy with tasks in a hostile environment (working in shifts, working in dusk/night, subjected to a loud environment, working in extreme warm/cold temperatures, working in the vicinity of jet engines/propellers, etc.) which all create "ideal" hazard conditions. Add to this the constant pressure to get things done fast, and maybe even doing a few things simultaneously, and before you know it, you miss a step, you don't look where you're going, and you slip, trip or fall.

When servicing Hyperion Aviation/or aircraft FBO/GSP Handling Staff should also pay attention to following potential hazards which can cause slipping, tripping or falling:

- Items which could be on the cabin floor (e.g. after having passed through turbulence) such as plastic bags, plastic lids, audio headsets and cords, covers from meal trays, documents and other discarded objects,
- Inappropriate footwear,
- Liquids or ice spills on the galley floor,
- Wet toilet/bathroom floors,
- Providing service when lighting is low or at night,
- Falling through open aircraft door,

		Beware of wet floors & surfaces!

All FBO/GSP Handling Staff must be aware of their personal responsibility to take care in inclement weather. In winter, care must be taken when crossing the ramp or boarding aircraft steps when snow, ice or De-/Anti-Icing fluid may be present.

FBO/GSP Handling Staff must always wear PPE as described in "GOM 4.1.1" and observe the safety rules as detailed in "GOM 4.2".

7.4.2 GALLEY OPERATIONS & SERVICE PROVISION (CATERING)

FBO/GSP Handling Staff involved in uplifting catering and service items should be aware that certain actions within a (confined) aircraft galley can create situations which might lead to personal injuries.

Hazards associated with catering handling include:

- Lifting of overhead storage units.
- Protruding metal from ovens may cause lacerations.
- Bending and stretching to get items from the bottom of carts and out of drawers, or;
- Boxes in the carts, and galley storage.
- Burns and scalds.
- Infection from used food/drink utensils.
- Broken glass(ware) in storage units/drawers.

Frequently used items should be easy to manipulate and placed in areas that do not require frequent overhead lifting or bending. Where possible, tasks should be planned to avoid twisting, turning and bending of the trunk.

Working heights that are too low or high will require FBO/GSP Handling Staff to adopt undesirable postures. The further away from the body the load is carried, the greater the potential for harm (e.g. standard stowage units stored above shoulder height in galleys).

Fully laden food and beverage carts are heavy items and mobile. These must be handled with care. Handling Staff must consider the potential for injuries from moving carts during on/off-load.

Hazards associated with food and beverage carts, cardboard/Styrofoam/ATLAS boxes and their stowage and maintenance include:

- Inappropriate or inadequate stowage of F&B carts, boxes (cardboard/Styrofoam/ATLAS)
- Failure of galley/boxes latches (overloaded, leaking, wear & tear, etc.).
- Inadequate checking, repair and maintenance of F&B carts, boxes.

7.4.3 BURNS & SCALDS

Burns and scalds to FBO/GSP Handling Staff on board aircraft is an underestimated threat. These injuries have been caused mostly by:

- Hot water or drink containers being tipped over.
- Coffee-maker plunger splashes, spillages, and steam and the hot sides of pots.
- Hot food.
- Hot galley equipment such as ovens.

Associated hazards causing burns and scalds are:

- Working in a confined space (galley and aisle).
- Fatigue and/or stress.
- Equipment, i.e., the inherent design of ovens, urns, food trays, coffee pots.
- Hot ovens and trays.
- Steam when opening the lids of cooked meals.
- Work pressure, e.g. short turn-around times.
- Overfilling cups, pots,
- Handling Staff and/or Crew actions or inattention, e.g. inadvertently knocking liquids out of hands.
- Inexperience.

FBO/GSP Handling Staff responsibilities when servicing the galley and on/off-loading catering and service items are as follows:

- Oven gloves should be worn when removing items from hot ovens. Oven gloves must also be made of an impervious material that does not allow seepage of hot liquid into the glove whilst still providing insulation against heat. Gloves should also fit well and enable crew to properly grip items to load carts for meal service.
- Care should be taken when handling coffee and tea pots. If pots without lids are loaded, ask catering to exchange or provide lids. Tea or coffee pots lids should be tight and seal well so when tipping the pot, the hot liquid does not spill from the top. Do not overfill pots. When using plunger coffee makers, take care when depressing the plunger.
- Keep the galley clean and tidy to ensure that pots are not overcrowded, that everything has a place, and hot trays meals can be placed quickly onto a safe surface.
- Handling Staff must remain vigilant and focussed when working with ovens.
- Napkins should not be used when loading the meals from the oven to the cart, or vice-versa.

7.5 AIRCRAFT CABIN CLEANING - HAZARDS

Managing the risk of exposure to biological hazards in the workplace is an important issue. Care should be taken that FBO/GSP Handling Staff takes precautions to prevent blood-borne viruses and other pathogens from being transmitted through direct contact with passengers and crew(s).

Crew members and/or FBO/GSP Handling Staff can be exposed to disease as a consequence of performing their routine duties and tasks, and through additional responsibilities that can arise when caring for passengers who are unwell or have an injury.

This section provides general information for FBO/GSP Handling Staff on biological hazards within their working environment and aims to create awareness and insight, which also should minimise the risk of exposure to disease by taking the precautions necessary to protect themselves when assisting passengers and/or crew(s). We will also describe some basic procedures required for a safe clean-up of body fluids and soiled surfaces when FBO/GSP Handling Staff is called for aircraft cabin cleaning operations.

This section will not describe in detail procedures on dealing with infectious outbreaks, as the relevant authorities will provide guidance material/procedures when such a case occurs.

Biological health hazards can transmitted be via the following routes:

- Direct - person to person;
- Airborne;
- Faecal & oral;
- Blood-borne.

FBO/GSP Handling Staff can come into contact with biological hazards in the aircraft cabin environment. These could include but are not limited to the following:

- Blood spills, blood and organs carried on board (human and animal).
- Body fluids other than blood; saliva, vomit, faeces, urine, or sputum.
- Diseases or infection carried by crew members, passengers, other Handling Staff.
- Waste products and contaminated material, such as used cups, glasses, meal trays and eating utensils, disposal of facial tissues, used nappies and sick bags, and other personal hygiene items, and re-stocking of toilets.
- Rapid temperature changes. These changes in temperature can make anyone more susceptible to infection.
- Hypodermic needles and syringes.
- Additional hazards associated with the disposal of hypodermic needles and syringes include Hepatitis B & C and HIV (Human Immunodeficiency Virus).
- Hepatitis C is spread primarily by blood-to-blood contact. The use of hypodermic syringes to inject drugs has become the single most important risk factor.
- Passengers' poor personal hygiene.
- Diseases or infection carried by passengers, e.g.: Tuberculosis & other infectious diseases, arthropod borne diseases such as malaria and yellow fever.

7.6 PANDEMICS & EPIDEMICS - HAZARDS

The speed and efficiency of air travel and the mobile nature of the global population highlights the risk of a worldwide spread of infectious disease.

An infected and infective person can easily travel from country to country in a matter of hours or days, and literally infect thousands of people including FBO/GSP Handling Staff, crew members, fellow passengers and persons in airport buildings.

Of particular concern are airborne pathogens like the SARS virus and other possible pathogens such as the avian influenza virus. These viruses are spread by droplet infection, much like the common cold or 'flu.

Definitions to remember:

- Epidemic: a located cluster of cases;
- Pandemic: worldwide epidemic.

The most effective prevention is keeping hands clean through improved hand hygiene. The next section, "GOM 7.6.1", addresses this in detail.

7.6.1 HAND WASHING

Keeping hands clean through improved hand hygiene is one of the most important steps we can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean, running water. If clean, running water is not accessible, as is common in many parts of the world, use soap and available water. If soap and water are unavailable, use an alcohol-based hand sanitizer that contains at least 60% alcohol to clean hands.

This section provides basic hand washing techniques, which are based on basic WHO, US-CDC, EU-CDC and HACCP procedures and will aid in preventing:

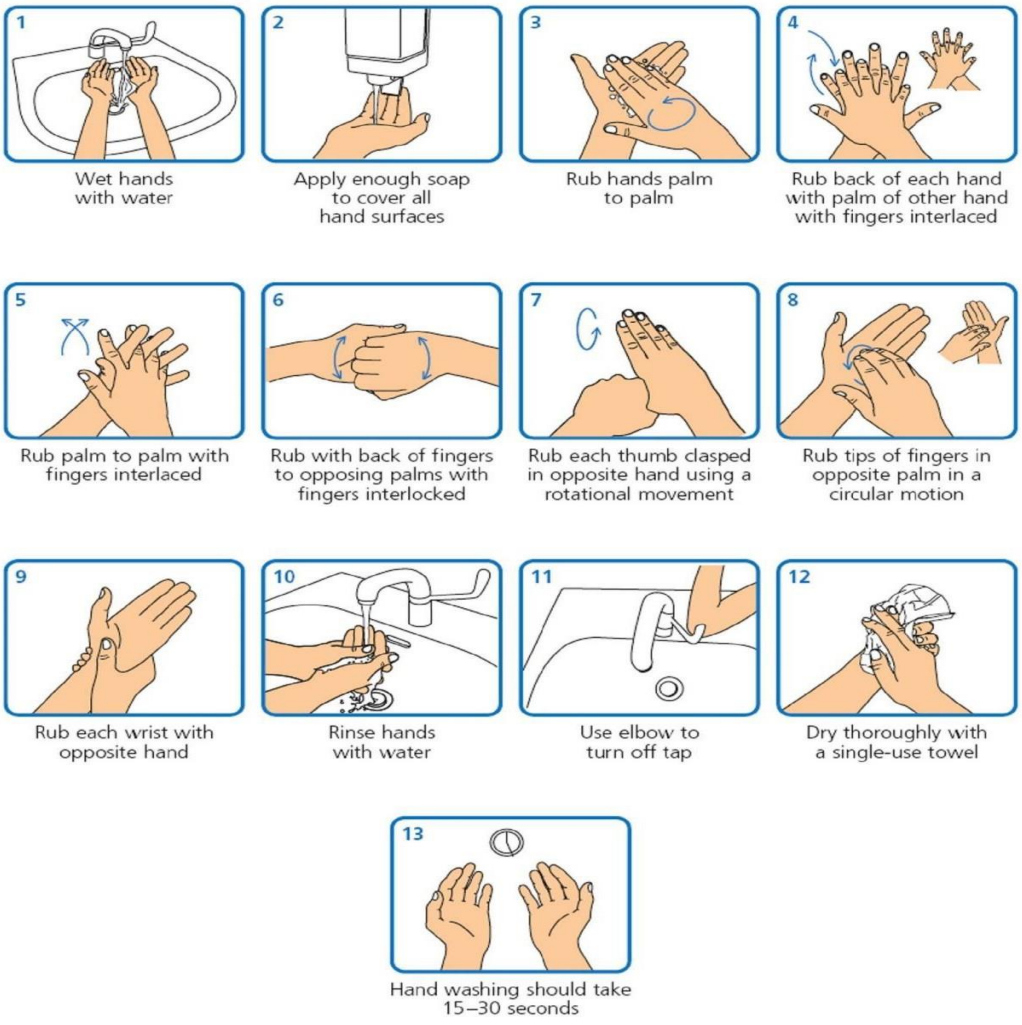
- Biological contamination,
- Infections by pathogens,

When should Crew(s), FBO/GSP Handling Staff, and anyone else involved in cleaning aircraft cabins or performing galley operations and catering/service provisions, wash their hands?

- Before, during, and after touching/preparing food.
- Before eating food.
- Before and after caring for someone who is sick.
- Before and after treating a cut or wound.
- After using the toilet.
- After changing diapers or cleaning up a child who has used the toilet.
- After blowing your nose, coughing, or sneezing.
- After touching an animal, animal feed, or animal waste.
- After handling pet food or pet treats.
- After touching garbage/waste.
- After having touched cleaning materials (mops/tissues, etc.) or chemicals.

7.6.2 HAND WASHING TECHNIQUES

The following illustrations show in detail how to effectively wash hands for maximum results.

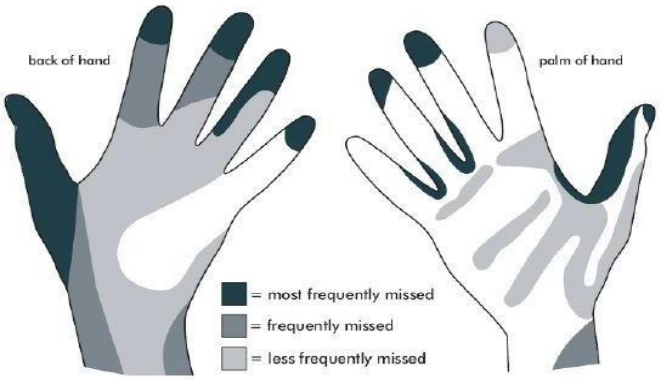


7.6.3 HAND WASHING – MISSED AREAS

It is now established that proper hand washing is the number one way to prevent the spread of germs and diseases such as the flu or Norovirus. However, just running your hands under water with a little soap isn't enough, as shown in the hand washing techniques picture shown before. In fact, studies have found that only 70% of people wash their hands and only 30% of those people wash their hands with soap. It's a start, but not enough to adequately kill germs and bacteria.

The following picture illustrates commonly missed areas when washing hands. The light grey areas are frequently missed areas and the dark grey areas are the most frequently missed.

As you can see, the backs of hands, in between fingers and fingertips tend to get missed during the hand washing process. That means many people just aren't killing off the germs.



You can take additional measures in getting rid of all of those germs and bacteria by utilizing a hand and nail brush to clean under your nails and scrub your cuticles.

Additionally, make sure your clean hands do not come in contact with the sink faucets, door knobs or light fixtures immediately after washing. Instead, use a disposable paper towel to turn off the water and lights and open the door. Paper towels are also the best method of drying your hands to prevent the spread of bacteria. Studies have shown they do a better job than electric dryers, which tend to spread bacteria.

7.7 HEARING LOSS - HAZARDS

Aircraft, ramp areas, maintenance centres and airports in general are considered to be high risk environments for noise-induced hearing loss (NIHL). Noise levels vary with aircraft types and with different jobs on board and around aircraft. Noise from jet and modern propeller aircraft can be very high and piercing. The effects of noise are gradual and insidious and cause damage over a period of time from months to years. All air operators and their Handling Staff and crew members need to be vigilant in the prevention and control of hearing impairment within the aviation industry.

Not only will hearing loss impact upon a person's ability to perform their job, it also impacts upon them socially. Hearing is a social sense which enables crews and Handling Staff to communicate with each other and facilitates good CRM. NIHL can permanently affect people while they are in the aviation industry and have a significant effect upon their lives long after they leave the industry.

In many cases it is impractical to eliminate noise from the workplace or to reduce noise to safe levels. Some sources of noise hazards for FBO/GSP Handling Staff and crew include the following:

- Walking to and from aircraft and through hangers or on the (active) ramp;
- GSE positioning and (un)-loading/servicing on/around/under aircraft;
- Stair access and egress - crew assisting passengers at the bottom of the stairs;
- Propellers noise & jet engine noise;
- Vibration;
- Jet engine efflux.

7.7.1 EFFECTS OF NOISE ON HEARING

The extent of NIHL depends on the intensity of noise, its duration and its frequency (or pitch). The longer a person's ears are exposed to excessive noise, the greater the degree of hearing loss. More time equals more acoustic energy and hence more damage. The damage that results from noise is irreversible, and the treatment is limited.

7.7.2 HEARING PROTECTION

Hearing protection is mandatory for all employees on any area of the ramp (movement area). At take-off, an aircraft, 100m away, generates easily noise at 130Db.

The use of hearing protection may be the only practical means of control that protects against hearing loss. However, hearing protection in the form of earmuffs or plugs is often a misused control option, as its effectiveness in protecting employee hearing depends on:

- Selecting the correct device;
- Ensuring the device fits properly and is worn correctly;
- The percentage of time the hearing protector is actually worn while an individual is exposed to hazardous noise.

7.7.3 NOISE - PERMISSIBLE EXPOSURE TIMES

Exposure to noise should be controlled so that the exposure is less than a max combination of exposure level and duration

Continuous dB	Permissible Exposure Time
85dB	8 Hours
88 dB	4 Hours
91dB	2 Hours
94dB	1 Hour
97dB	30 Minutes
100dB	15 Minutes
103dB	7.5 Minutes
106 dB	3.75 Minutes
109dB	1.8 Minutes
112dB	0.9 Minutes
115dB	.4 Minutes

7.8 STRESS - HAZARDS

Workplace stress is described as when someone becomes aware that they are not able to cope with the demands and pressures associated with their work environment and they have a negative response to those demands /pressures.

Stress is considered a hazard, and can have long-term negative effects. Therefore, it must be managed just like any other hazard. The control methods are to identify the causes of the workplace stressors and then manage these by elimination, isolation or minimisation. This approach means that the impact of the demands and pressure of work, together with the way it is organised, are acknowledged, analysed and managed. This has direct implications for work design, and the length of hours worked; with particular emphasis on the effects of shift work.

Stressors are events, or circumstances, which generally result in pressure on the individual. They can lead to people feeling that they are unable to cope with either the physical or psychological demands of their job.

Stress is present in many jobs, and the aviation environment has many potential stressors such as on-time performance, multi-tasking, emergencies, noise, disturbed circadian rhythms and irregular night work, quick turn-around(s) and preparing the aircraft for departure. They can occur because of the way the work is organised.

Stressors may arise from excessive work demands, such as unrealistic deadlines or workloads, or may be disruptions due to weather or mechanical reasons which, apart from being disruptive to the Handling Staff's home life, can cause some colleagues, customers or passengers to become intolerant and difficult to manage. They may also result from personal factors such as health status, injury, relationship problems, or the personal ability to cope with situations.

Stress on- board an aircraft can increase during periods of turbulence, when passengers are unwell, there is a new crewmember etc. It also happens on the ground, facing adverse weather, disruptions, slots, unplanned changes, and when working with new colleagues, equipment and/or technology.

It is important to note that not all stress is work-related. Stress is also associated with life events that are independent of the work environment such as births, deaths, and weddings or financial and other domestic issues. In all situations, individual responses to stress may differ from one person to another.

It is crucial that non-work-related stress is reported as it will increase the likelihood of work-related stress manifesting itself. People who are stressed may exhibit some of the following signs and behaviours:

- Disregard or minimise safety issues and put themselves or others at risk.
- May have mood changes, seem depressed or experience/exhibit symptoms of anxiety.
- Develop long–term health problems such as physical or psychiatric disease.
- Lose confidence, talk about sleeping badly, have slow reactions or behave oddly.
- Be less able to get along with people that they used to work well with.
- Become irritable and indecisive, or perform poorly and make more mistakes.
- Drink more alcohol/coffee/stimulants than usual or use recreational drugs.
- Complain about their health and, for example get frequent headaches and stomach upsets.

7.8.1 RESPONSIBILITIES

Dealing with stress in the workplace is an on-going task that needs to become part of the organisation's work systems.

If stress reaches a level that affects the performance of any staff member, then this hazard must be managed so that safety around and on-board the aircraft is not compromised.

All practicable steps should be taken for those circumstances they know or ought reasonably to know about. If someone says that they are stressed, or are acting in such a way that most people would agree they were stressed, then employers need to know what is causing the "stress" symptoms and take appropriate action.

Stress can be created either by operational issues, while the aircraft is on the ground or is airborne, or other conditions that arise outside of the flight itself.

7.9 FATIGUE - HAZARDS

Aviation with its long hours and inherent shift-work can result in periods of increased fatigue and times when performance will be degraded.

As people become more fatigued, they become more forgetful, inattentive, apathetic, and moody. They make poorer decisions, are less communicative, less vigilant, and their responses become slowed and variable.

7.9.1 SIGNS AND SYMPTOMS OF FATIGUE

The ability to recognise the signs and symptoms of fatigue in both yourself and others is central to the management of fatigue. One way to check on fatigue levels is to answer the following questions:

- Have I had enough sleep in the last few days?
- Was it a good quality sleep?
- How long have I been awake? (after 16 hours, fatigue risk will be increasing)
- Am I coming into a part of the day where sleepiness is high? (early morning, or mid-afternoon) Each of these factors increases the risk of fatigue being an issue.

7.9.2 SKILLS AFFECTED BY SLEEP LOSS

The sort of skills known to be sensitive to sleep loss, and important for many complex tasks undertaken by FBO/GSP Handling Staff, include:

- attending to complex information while filtering out distractions;
- keeping track of an evolving situation and recognising when it is necessary to update a strategy;
- thinking laterally and innovatively;
- assessing risk;
- maintaining interest;
- controlling mood and behaviour;
- monitoring personal performance;
- effective communication.

Someone who is sleepy may forget what they were talking about in the middle of a sentence, or provide an unusually rambling response. While everyone knows that tired people tend to be irritable and cranky, they can also become quieter than normal. Apathy and deliberately ignoring low-effort tasks, (such as normal checks or procedures) because they are 'too much effort', is also common.

7.9.3 FATIGUE - PERFORMANCE CHANGES

Performance Impairment	Indicators
Attention	Overlooks sequential task elements. Incorrectly orders sequential task elements. Preoccupied with single tasks or elements. Exhibits lack of awareness of poor performance. Reverts to old habits. Focuses on a minor problem despite risk of major one. Does not appreciate gravity of situation. Does not anticipate danger. Displays decreased vigilance. Does not observe warning signs.
Memory	Forgets a task or elements of a task. Forgets the sequence of task or task elements. Inaccurately recalls operational events.
Alertness	Succumbs to uncontrollable sleep in form of micro sleep, nap, or long sleep episode. Displays automatic behaviour.
Reaction time	Responds slowly to normal, abnormal or emergency stimuli. Fails to respond altogether to normal, abnormal or emergency stimuli.

Problem-solving ability	Displays flawed logic. Displays problems with arithmetic, geometric or other cognitive processing tasks. Applies inappropriate corrective action. Does not accurately interpret a situation. Displays poor judgment of distance, speed, or time.
Physiological effects	Exhibits speech effects – slurred, rate, content. Exhibits reduced manual dexterity – key-punch entry errors, switch selection.

7.9.4 FATIGUE - RESPONSIBILITIES

FBO/GSP Handling Staff have a responsibility to arrive fit to work including attending training, and to behave safely in the workplace. This includes arriving at work as well rested as possible by using recovery and rest periods appropriately, and understanding and managing fatigue related risks in the workplace.

FBO/GSP Managers/Supervisors should be aware of the warning signs that an individual is not coping or is fatigued. This is significant, as some people do not cope well with shift work, especially when concerns outside the workplace are more worrying than usual e.g. when they have a sick relative, relationship problems, or bereavement.

7.10 ALCOHOL & DRUGS & PSYCHOACTIVE SUBSTANCES - HAZARDS

Note: reference: IATA ISAGO ORM-H-1.6.5, ICAO Manual of Civil Aviation Medicine

Based on the use of alcohol and medication/drugs in the general population, it is reasonable to assume that people in particular industry sectors may also be users of alcohol and medication/drugs. Therefore, there is the potential for FBO/GSP Handling Staff to be on duty when affected by alcohol and medication if they are not used in a responsible manner. While the consumption of alcohol may be socially acceptable, it's detrimental effect(s) on human skills and efficiency cannot be overestimated particularly in relation to airside duties.

The effects of alcohol and other drug use in the context of their impact on the working environment are often referred to as substance impairment. The following information sets out some recommendations as to how medication/drugs and alcohol use (or misuse) could be managed in the airport ground handling environment.

While substance impairment is not clearly identified as an issue in Ground Operations accident and incident data, this guideline represents an opportunity to proactively manage this and prevent it becoming an issue.

7.10.1 HEALTH PRECAUTIONS

GHA/GSP Handling Agents shall not perform duties (on an aircraft) when under the influence of:

- alcohol,
- psychoactive/psychotropic substances, or,
- when unfit due to injury, fatigue, medication, sickness, or other similar causes.

The problematic use of psychoactive substances is incompatible with any FBO/GSP Handling Agents duties, and personnel who are identified as engaging in any kind of problematic use of psychoactive substances will be removed from duty(ies).

7.10.2 ALCOHOL & MEDICATION - RESPONSIBILITIES

FBO/GSP Handling Agents should have processes in place to manage reports of substance impairment of their staff. FBO/GSP employers in conjunction with employees or their representatives should develop a substance impairment testing policy and processes to address their responsibilities or more generally as part of any employment agreement.

All FBO/GSP Handling Agents must be alert for signs of substance/alcohol abuse in their colleagues and are expected to exert peer pressure to encourage the concerned individual to seek help. Problem behaviour should be reported to the

appropriate line manage, such that discrete action can be taken to resolve the problem. There are a number of actions FBO/GSP Handling Staff can take to ensure safety with respect to the influence of alcohol and (prescription) medication/drugs as follows. Some of these actions are shown on the following table.

7.10.3 NARCOTICS, DRUGS OR PSYCHOACTIVE SUBSTANCES

Consumption of any narcotics, drugs or psychoactive substances which have not been prescribed by a medical practitioner can be detrimental to FBO/GSP Handling Agents abilities and qualities, and is expressly forbidden at any time.

7.10.4 ALCOHOL & DRUG TESTING

FBO/GSP Handling Agents may be asked at any time to submit to alcohol and/or drugs (controlled and/or psychoactive substances) by the appropriate authorised national law enforcement entities. It is Hyperion Aviation policy to be cooperative when FBO/GSP Handling Agents are requested to undertake any alcohol/drug test by a person with competent authority.

FBO/GSP Handling Agents staff should request that the initial discussion and/or test takes place in a private facility remote from the passengers and other staff. FBO/GSP Handling Agents staff should not be tested on/in/around the aircraft or when in the terminal/lounge/FBO facility never in view of the passengers and/or other staff.

Should a test reveal the presence of alcohol/drugs above prescribed limits (which differ in every country) in any staff member on duty, then appropriate (disciplinary) action may be taken and the competent national authority advised of the circumstances.

7.11 FUEL HANDLING - HAZARDS

Fuel contamination hazards and first aid emergency measures are described in "GOM 4.5.6".

7.12 FIRST AID

In addition to their safety related duties when handling aircraft on the ramp, FBO/GSP Handling Staff may be required to administer first aid to passengers or colleagues.

With the increase in travel and the age of travellers, more passengers are likely to develop illness when travelling through airports. FBO/GSP Handling Staff may be required to assist passengers who become ill during the handling process and to administer appropriate treatment within the parameters of the training they have been given. Accordingly, FBO/GSP Handling Staff should be appropriately trained in first aid administration, and life support procedures, and in the use of all emergency equipment available to them in the airport infrastructures, e.g. defibrillators (AED).

FBO/GSP Handling Staff first aid training should include basic care principles, anatomy and physiology, and an overview of the human body looking at organs and systems. The symptoms of typical illnesses most likely to occur during flight, including procedures for their temporary treatment, must also be described.

In addition to basic theoretical explanations, FBO/GSP Handling Staff should receive practical training in cardiopulmonary resuscitation (CPR) life-saving holds such as the Heimlich manoeuvre, and correct positioning of the body, for example, positioning of an unconscious passenger into the recovery position.

Certain work environments, like airports, have greater risks of injury and illness, due to the nature of the work being performed and the length of travel away from medical facilities. This is an important criterion for deciding first aid requirements, as different first aid facilities may be required for different activities.

7.12.1 FIRST AID SAFETY - DEFINITION

First aid is primarily immediate action taken by persons first on the scene of an accident, to preserve life, prevent the patient's condition deteriorating and to promote recovery. This can be simple first aid, such as administering a plaster to a very minor injury, or the administering of chest compressions (cardiac massage) by trained first aiders.

7.12.2 FIRST AID - ACTION

Summon immediate help, ensure the Ambulance Service is notified if it is apparent that injuries are not minor and in all cases of a fall from any height. Summon the assistance of a trained Company First Aider.

As a general rule do not move a casualty if skilled help is on the way, unless there is a threat to life evident. With an electrical accident do not take further risks which may result in further casualties, switch electricity OFF or, if that is not possible, move the casualty from the live system with a dry wooden pole (such as a broomstick).

If someone is overcome by fumes, proper advice and/or protective equipment should be obtained before entering any fume filled area. In the absence of trained first aiders the following advice should be followed:

Burns: Hold under cold running water for up to 15 minutes. Apply a clean dressing and seek urgent medical advice. Do not use cream or ointments.

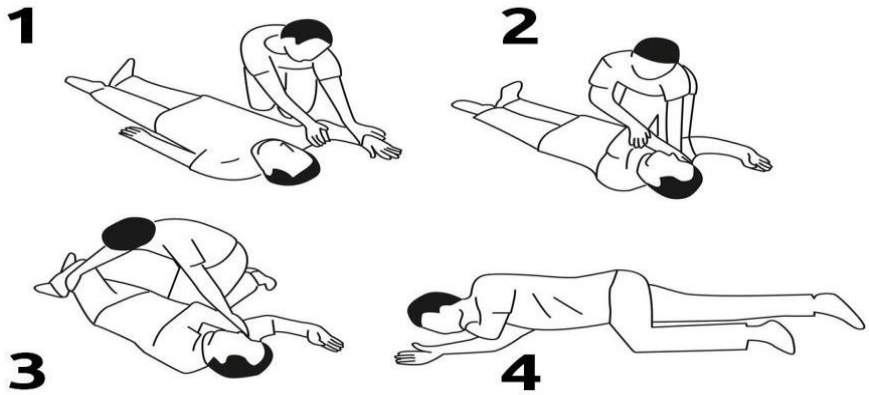
Eyes: For chemical splashes or foreign bodies, wash the eye thoroughly in water for at least 10 minutes, or until help arrives. Apply a clean pad if necessary. Immediately seek medical advice.

Shock: Keep the casualty lying down! Raise their legs and keep warm. Do not give the casualty any food or fluids until sanctioned by a doctor.

Bleeding: Apply direct pressure to stop the bleeding. Use a clean dressing if available, but do not waste time looking for one. Bleeding limbs should be raised.

Unconsciousness: If the casualty is unconscious, turn on one side with the upper knee drawn up and the head turned to same side. Check the airway. Do not try and give anything by mouth. Check for further dangers such as fumes, fire or electrical shock. How to move a person into the recovery position:

- Kneel down beside the person.
- Move the arm closest to you into a right-angled position in relation to their body with their elbow bent and their hand at the level of their head.
- Gently take hold of their other hand (palm to palm). Now lift this hand across the person's body and position the back of their hand against their opposite cheek (for example, the back of their right hand should be touching their left cheek). Continue to hold your hand in theirs in this position to guide and support their head as you roll them.
- With your free hand reach down to the person's knee that is furthest from you. Lift this knee up so that the leg is bent with the foot resting flat on the floor.
- Pull the bent knee towards you so that the person rolls onto their side facing you. The leg you have just pulled over should be left in a bent position to keep the person balanced on their side.
- The person's airway can now be opened by gently lifting their chin to tilt their head back slightly. Check the person's airway to ensure that there are no obstructions, which could block the airway, such as food in their mouth. Remove any obstructions if you can do so safely.
- Don't leave the person alone while they are in the recovery position. You will need to continue to monitor their breathing until medical help arrives.



Breathing Stopped:

If breathing has stopped, start mouth-to-mouth resuscitation and when possible send for a defibrillator (AED) and call emergency services (EMS) if not already done.

	Tap and Shout. (If known, call his name repeatedly) Yell for help, send/ask someone to call emergency services (EMS). Send someone for a defibrillator (AED).
	Look for "no breathing" or only gasping. Push hard and fast. Give 30 compressions.
	Open the airway and give 2 breaths. Repeat sets of 30 compressions and 2 breaths.

	When the defibrillator (AED) arrives, turn it on and follow the prompts/instructions.

8 DE-ICING & WINTER OPERATIONS

8.1 GENERAL

Note: reference: • SAE International Documents AS6285 & AS6286, EASA CAT.OP.MPA.250, IATA AHM1110

Hyperion Aviation is operating according to the “Clean Aircraft Concept”.

No aircraft may take- off unless it has been determined that all critical components and surfaces are free from adhering coatings of ice, frost or snow.

Wind tunnel and flight tests indicate that deposits of ice, frost or snow formations on the leading edge and upper surface of a wing, having a thickness and surface roughness similar to medium or coarse sandpaper, can reduce wing lift by as much as 30 % and increase drag by up to 40 %. These changes in lift and drag will significantly increase stall speed, reduce controllability and alter airplane flight characteristics.

Thicker or rough ice accumulations in the form of frost, snow or ice deposit can have increasing effects on lift, drag, stall speed, stability and control, but the primary influence is surface roughness relative to critical portions of an aerodynamic surface. Ice on critical surfaces and the airframe may also break away during take-off and be ingested into engines, possibly damaging fan and compressor blades or cause damage to vertical and horizontal tail surfaces. Ice forming (or blocking) on pitot tubes and static ports or on angle of attack vanes may give false attitude, airspeed, angle of attack and engine power information for air data systems.

These adverse effects on the aerodynamic properties of the aerofoil may result in sudden departure from the commanded flight path and may not be preceded by any indications or aerodynamic warning to the pilot:

Loss of lift: Frozen accumulations may destroy the lifting ability of air foils, including leading edge devices, resulting in failure of the aircraft to become airborne.

Increased drag: An aircraft may fail to reach take-off speed within the calculated/available distance, as a result of the increased drag placed on the aerofoil due to the presence of frozen contaminants.

Decreased control: Frozen accumulations may impair the function of control surfaces, such as rudder, elevators, ailerons and trim tabs, to such a degree that the aircraft cannot be controlled.

Flutter: Accumulation of frozen contaminants may create conditions that result in separation of airflow and dynamic instability of the aerofoil surface, which, in extreme cases, can cause destruction of aircraft parts.

Restricted control surface movement: Ice deposits may form in the hinge and other areas of control surfaces and restrict or prohibit their movement.

Blocked sensors: Frozen contaminants blocking pitot probes, static ports, engine pressure sensing probes and inlets can cause errors in critical instrument readings.

Ingestion damage to engines: Ice, shedding from the lower surface of the engine intake during take-off, can damage blades, vanes and other engine parts and in extreme cases may result in loss of the engine during this most critical stage of flight.

Damage to horizontal or vertical tail surfaces: Deposits of clear ice, that have formed on the upper surface of 'cold' wings during periods of rain or other periods of high humidity, may be 'shed' during take-off and damage horizontal and vertical tail surfaces.

Increased weight and/or altered balance characteristics: The build-up of frozen contaminants on aircraft surfaces increases the weight of the aircraft and may affect its ability to reach take-off speeds within the required/available distance. It will also affect the distribution of weight on the aircraft.

Hyperion Aviation follow the rules and procedures published yearly by SAE International in its documents AS6285 & AS6286. These rules and procedures were published until winter season 2018/2019 by AEA in their: "AEA recommendations for De-Icing / Anti-Icing of Aircraft on the Ground".

8.2 DESCRIPTION

8.2.1 FROST

Frost/Hoar Frost: Ice crystals formed from water vapour that freezes on surfaces, which are at or below 0°C. When the following conditions exist, frost may form on aircraft surfaces, even though the OAT is above 0ºC:

- On a cold cloudless night aircraft surface temperature may fall to as much as 4ºC below the ambient temperature, due to the effect of long wave radiation (heat in the wing effectively radiates through the atmosphere to outer space). Frost may therefore form on aircraft surfaces, even though the outside air temperature is up to +4ºC.
- Where wing surface temperatures are at or below 0ºC, due to the presence of 'sub-zero' fuel from the previous sector, frost will tend to form on these surfaces, when the ambient temperature is above that of the wing.
- Aircraft that has previously operated a relatively long sector at high altitude will have become 'cold soaked'. Where the turnaround is short, insufficient time may exist for the temperature of parts of the structure to rise above 0ºC and frost may form on the parts of the airframe that remain at or below 0ºC, even though the OAT may be above 0ºC.

Active Frost: A frost condition demonstrating actively growing crystals that gain in mass and thickness. It typically forms at night under clear skies and calm winds when the OAT is below 0ºC and the dew point temperature spread is less than 3ºC. The temperature of the aircraft surface must be below 0ºC. As an example, if an aircraft is parked outdoors on a cold, clear night, heat can radiate from its surface at a rate greater than is absorbed from its surroundings. The net effect is that the aircraft surface temperature drops below the OAT. If this temperature is below the frost point temperature of the air, moisture will deposit in the form of hoarfrost.

As a guide, if there is frost on any object in the de-icing area (including the aircraft) and the OAT and dew point are 3ºC apart and narrowing, there is likely to be active frost. If the OAT and dew point are 3ºC apart and expanding, active frost is unlikely. If there is doubt, treat the condition as active frost.

Freezing Fog: Defined as a cloud of super cooled water droplets which freeze upon impact to form rime ice on objects in cold weather conditions. The visibility at the earth's surface is generally reduced to less than 1km (5/8 mile). The severity of this condition is dependent on the visibility and airflow.

When moisture laden air is blown into contact with a surface which is at or below 0°C, the super cooled droplets will freeze immediately. Where wind speed and direction are maintained for a period of time, a significant layer of rime ice can build up in a relatively short period of time. Clearly, the lower the visibility and/or the higher the speed of the airflow, the more severe the ice build-up.

8.2.2 SNOW

Snow: Precipitation of ice crystals, most of which are branched, star-shaped or mixed with un-branched crystals. At temperatures above -5ºC the crystals are generally agglomerated into snowflakes.

Snow Grains: Precipitation of very small white and opaque particles of ice that are very flat or elongated with a diameter of less than 1mm (0.04 inch). When snow grains hit hard ground, they do not bounce or shatter.

Snow Pellets: Precipitation of white, opaque particles of ice. The particles are round or sometimes conical. Diameters range from about 2mm to 5mm (0.08 to 0.2 inch). Snow pellets are brittle, easily crushed; they do bounce and may break up on contact with hard ground.

Note: For holdover time purposes treat snow grains and snow pellets as snow.

8.2.3 ICE

Ice will occur on an aircraft when the weather conditions are cold and there is moisture on its surfaces.

- Ice is possible on an aircraft when:
  - The temperature of the aircraft skin is 0°C or less.
  - The local temperature is more than 0°C and there are strong winds (wind chill factor). This can occur at temperatures up to 10°C. It can also occur at these temperatures when there is snow on the surfaces of the aircraft.
  - There is precipitation in cold conditions (freezing rain).
  - There is high humidity in cold conditions.
  - There is fog in cold conditions (freezing fog).
- Some ice is transparent. It can occur in the conditions given above and is not easy to see on the surfaces of the aircraft.

8.2.4 RAIN & SLEET & SLUSH

Freezing Drizzle: Fairly uniform precipitation composed exclusively of fine drops less than 0.5mm (0.02 inch) diameter, very close together, which freezes upon impact with the ground or other exposed objects.

Light Freezing Rain: Precipitation of liquid water particles, which freeze upon impact with the ground and other exposed objects. Precipitation consists of drops, greater than 0.5mm (0.02 inch) diameter. Measured intensity of liquid water particles is up to 2.5mm/hour (0.10 inch/hour) or 25gm/dm2/hour with a maximum of 0.25mm (0.01 inch) in 6 minutes.

Moderate and Heavy Freezing Rain: Precipitation of liquid water particles, which freeze upon impact with exposed surfaces and objects. Precipitation consists of drops, greater than 0.5mm (0.02 inch) diameter. Measured intensity of liquid water particles is more than 2.5mm/hour (0.10 inch/hour) or 25gm/dm2/hour).

	There is no holdover time guidance for this condition.

Rain and Snow (Sleet): Precipitation in the form of a mixture of rain and snow.

Note: For holdover time purposes treat as light freezing rain.

Rain or High Humidity on a Cold Soaked Wing: Water droplets forming an ice topping on the wing upper surface, when the temperature of the aircraft wing surface is at or below 0°C. This phenomenon has been experienced at OATs of up to and above +15°C and will generally only occur when significant quantities of sub-zero fuel remain from the previous sector.

Ice Pellets: Precipitation of transparent (grains of ice) or translucent (small hail) pellets of ice, which are spherical or irregular and which have a diameter of 5mm (0.2 inch) or less. The pellets of ice usually bounce when hitting hard ground.

	There is no holdover time guidance for this condition.

Hail: Precipitation in the form of small balls or pieces of ice with a diameter ranging from 5mm to > 50mm (0.2 inch to > 2.0 inch) falling separately or agglomerated.

	There is no holdover time guidance for this condition.

Slush: Snow or ice that has been reduced to a soft watery mixture by rain, warm temperatures and/or chemical treatment.

8.2.5 COLD SOAKED WING(S)

When large quantities of 'sub-zero' fuel remain in the wings from the previous sector, for example, where round-trip fuel has been carried or a large fuel uplift was required for operational reasons, it is possible for frost or ice to form on wing surfaces, depending on the conditions. In extreme cases the built-in safety buffer, between the freezing point of the fluid used to de-ice the aircraft and the OAT, may be eroded.

During winter months fuel temperatures down to –25ºC are not uncommon. Where the temperature of the wing remains both below that of the freezing point and the OAT, moisture from the surrounding air will condense on these surfaces and frost will form, even though the OAT may be above 0ºC.

When the above conditions exist and the surrounding air is highly saturated, significant amounts of 'clear ice' may form in the vicinity of the fuel tanks, on both upper and lower wing surfaces, even when the OAT is up to +10ºC or higher.

This type of ice formation is extremely difficult to detect; therefore, when the above conditions exist, or when there is otherwise any doubt that clear ice may have formed, a close inspection of the wing upper surface must be made, using a suitable means of access. Should de-icing be found to be required, a further close inspection must be made immediately after the de-icing operation, in order to ensure that all frozen deposits have in fact been removed.

It should be stressed that the low wing temperatures associated with this type of build-up, normally only occur when large quantities of cold fuel remain in wing tanks during the turnaround/transit and any subsequent fuel uplift is insufficient to cause a significant increase in fuel temperature.

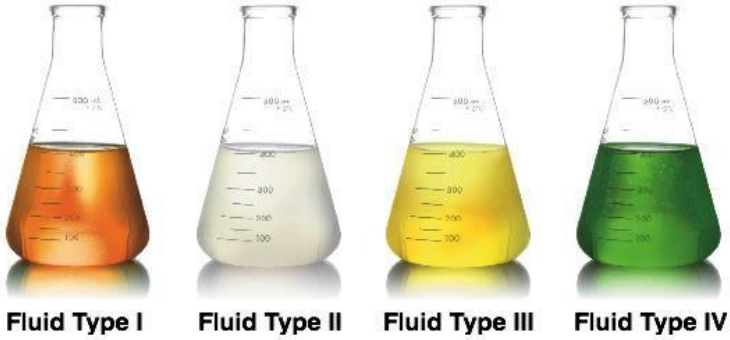
8.3 DE-ICING FLUIDS

There are currently four different fluid types. These fluids are called Type-I, -II, - III and –IV. The compound of each individual certified fluid varies but the types are known and accepted all over the world.

The fluid must be accepted (among others) according to its type for holdover times, aerodynamic performance and material compatibility.

The colouring of these fluids is also standardized:

- Glycol in general is colourless; as can be seen with older certified fluids when colouring was not standardized (older generation Type-I and Type-II).
- Currently orange is the colour for Type-I fluids, water white/pale straw is the colour for type-II fluids and green is the colour for Type-IV fluids.
- The colour for Type-III is yellow.
- In general De-Icing/Anti-Icing fluid may be uncoloured if so requested.



Other tests are also conducted on De-Icing plants on airports. These tests are made at the start of each shift, each time the rig is filled and whenever a new product arrives at the airport. These tests are kept on file and consist of:

- Refractometer;
- Visual Contamination;
- PH-Value;
- Viscosity check (except for Type-I Fluid).

8.3.1 ALKALI ORGANIC SALT-BASED AIRCRAFT DE-ICING FLUIDS

The majority of the aircraft de-icing fluids compliant with SAE AMS 1424 (known as Type-I) use a glycol (or a glycol/water dilution) as freezing point depressant. In recent years, some fluid manufacturers have developed Type-I fluids based on sugars. Most recently, some fluid manufacturers have developed new fluids based on alkali organic salt dilutions. Those

organic alkali salts might have two adverse effects on the flight operation and on the aircraft itself: reducing the length of the Hold over Time and, over time, may cause galvanic corrosion on metallic parts.

In view of this Hyperion Aviation strongly recommends to avoid the use of Type-I fluids that could negatively affect the hold-over time provided by the anti-icing fluid in a two-step de-icing operation. If unavoidable, apply special care when washing-off the Type-I fluid in the second step (anti-icing) and perform a pre-take-off contamination check.

Following procedure will be respected:

- When operating on non-European airports, the Commander will ascertain that no Alkali Salt based de-icing fluids are used.
- If the use of Alkali based de-icing product is unavoidable, apply special care when washing-off the Type I fluid in the second step (anti-icing) and perform a pre-take-off contamination check.

- If Alkali based de-icing fluid was used, the Commander will file an Occurrence Report to the respective Hyperion Aviation Maintenance/Engineering department.

8.4 GENERAL PRECAUTIONS DURING WINTER OPERATIONS

These are general guidelines; refer to the specific aircraft AMM (consultation via the respective Hyperion Aviation Maintenance Department) and SAE International documents AS6285 & AS6286 for definitive information.

- Ice that has accumulated on the fan blades while the airplane has been on the ground for a prolonged stop is called “ground-accumulated ice” and must be removed before engine start.
- Ice that has accumulated on the fan blades while the engine is at idle speed is called “operational ice” and is allowed to remain on the fan blades before taxi because the ice will be removed by engine run-ups prior to take-off.
- The right and left sides of the wing and horizontal stabilizer (including the elevator) must receive the same fluid treatment, and both sides of the vertical stabilizer must receive the same fluid treatment.
- Treat the wings and tails from leading edge to trailing edge and outboard to inboard.
- Treat the fuselage from the nose and work aft. Spray at the top centreline and work outboard.
- Do not point a solid flow of fluid directly at the surfaces, gaps in airframe structure, or antennas. Instead, apply the fluid at a low angle to prevent damage, while pointing aft for proper drainage.
- Make sure that all of the ice is removed during De-Icing. There may be clear ice below a layer of snow or slush that is not easy to see. As a consequence, it may be necessary to (hand) feel the surface to adequately inspect for ice.
- Do not spray De-Icing/Anti-Icing fluids directly into/onto
- auxiliary power unit (APU)
- engine inlets, exhausts,
- protruding antennas,
- static ports, static vents,
- pitot-static probes,
- pitot probes, or TAT probes,
- ECS inlets/exits,
- vicinity of landing gear wheels, aircraft brake assemblies,
- landing and taxi lights on wing leading edges.
- Do not spray hot De-Icing/Anti-Icing fluid or hot water directly on cockpit/cabin windows as it may cause damage.
- Ensure that ice or snow is not forced into areas around flight controls during De-Icing.
- Remove all ice and snow from passenger doors and girt bar areas before closing.
- (Cargo) Doors should be opened only when necessary. Remove the ice and snow from the anything that is to be loaded before putting it on the airplane.
- If SAE Type-II, -III, or -IV fluids are used, remove all of the De-Icing/Anti-Icing fluid from the cockpit windows prior to departure to ensure visibility.
- De-Icing/Anti-Icing fluid storage tanks must be constructed of a compatible material. For thickened fluids, the tanks must be of a material that is not susceptible to corrosion (e.g., stainless steel or fiberglass). This is particularly important for thickened fluids because their viscosity can be permanently decreased if they are contaminated or exposed to excessive heat or mechanical shear during handling and application.
- When there is ice, slush, snow, or standing water on the runways or taxiways during taxi-in, examine the airplane when it gets to the ramp.
- Look for any damage to the airplane surfaces and for contamination that may have collected on the airplane. Carefully remove the contamination.
- Remove contamination (e.g., frost, ice, slush, or snow) from the area where the main and nose gear tires will be positioned when the airplane is parked at the gate. If tires are frozen to the ramp, the airplane should not be moved until they are free.

	The reasons for No-Spray areas and why they are restricted and what the consequences might be or what might happen if glycol/fluid is sprayed on them should be understood. Such incidents may be that sensors give false readings, engine and APU produce smoke inside the aircraft via the air intake (or break), glycol may stick on heated cockpit windows causing restricted view for the flight crew etc.
	Take care not to allow following aircraft parts to become too hot: Painted surfaces, Rubber components, Glass components, Acrylic or glass fibre surfaces, Hydraulic pipelines, Surfaces that are oiled/greased externally.

8.4.1 COMMUNICATION PROCEDURES

An aircraft shall not be dispatched for departure after a De-Icing/Anti-Icing operation until the flight crew has been given an all clear signal (all De-Icing/Anti-Icing operations are complete and that all personnel and equipment are clear) and the following information recorded and communicated to the flight crew:

- Fluid type.
- The concentration of fluid expressed in percentage by volume.
- The local time at the beginning of the final De-Icing/Anti-Icing step.
- Holdover time
- The number of litres used per fluid type.

Transmission of elements a), b) and c) to the Flight Crew confirms that a post De-Icing/Anti-Icing check was completed and the aircraft is clean.

8.5 ANTI-ICING - DEFINITIONS

Anti-Icing is a procedure to give protection against frost, snow and ice on the clean/De-Iced surfaces the aircraft. The Anti-Icing fluids are:

- Hot mixtures of Type-I De-Icing fluid and water 60°C or more at the nozzle.
- Type-II De-Icing fluid (not mixed with water).
- Premix Type-I.
- Mixture of water and Type-II, Type -III or Type -IV - fluid 60°C or more at the nozzle.

An aircraft that has been Anti-Iced with undiluted Type-II, Type-III or Type-IV fluid shall not receive a further coating of Anti-Icing fluid directly on top of the contaminated fluid under any circumstances.

If it is necessary for an aircraft to be re-protected prior to the next flight, the external surfaces shall first be De-Iced with a hot fluid mix before a further application of Anti-Icing fluid is made.

All traces of Type-II, Type-III or Type-IV fluids on flight deck windows should be removed prior to departure, particular attention being paid to windows with fitted wipers. Fluid may be removed through rinsing with an approved cleaner and a soft cloth.

8.5.1 ONE STEP DE-ICING, TWO STEP DE-ICING & HOLDOVER TIMES

One Step De-Icing:

- One Step De-Icing is done with a Type-I or Type-II fluid/water mixture. The mixture is related to ambient temperature.
- One Step De-Icing includes Anti-Icing, which is related to the local weather conditions and the Holdover times.

Two Step De-Icing:

- The first step of the De-Icing is done with a mixture of the Type-I or Type-II fluid/water. The mixture is related to ambient temperature.
- The second step (Anti-Icing) is done with a mixture of the Type-I, Type-II fluid/water, 100% fluid, Type-III fluid or Type-IV fluid. The mixture, 100% fluid, is related to the local weather conditions.
- This second step must be done before first step fluid freezes (typically within 3 minutes), if necessary, area by area.

Holdover Times:

The Holdover time is the estimated time that the Anti-Icing treatment will give protection against frost, snow and ice on the clean surfaces of the aircraft.

Frequent visual examinations of the aircraft are necessary in conditions of frost, snow and freezing rain.

The length of Holdover times during which De-Icing/Anti-Icing fluids give adequate protection is dependent on:

- Ambient weather conditions;
- Individual fluid properties;
- The concentration used.

Recommendations on holdover times for different fluids (Type-I, Type-II, Type-III and Type-IV) must be obtained from SAE International documents AS6285 & AS6286.

Note 1: The holdover time will be shortened in heavy weather conditions, or if the fuel in the aircraft is at a significantly lower temperature than ambient, i.e. more than 10°C lower.

Note 2: High wind speed or jet blast may degrade the protective De-Icing/Anti-Icing film.

Note 3: It is recommended that the operator follows the fluid manufacturers' latest information on temperature range and fluid/water concentration.

Reference	See also: Parking Aircraft in Winter Conditions in "GOM 4.6.7"

8.6 ANTI ICING - APPLICATION

8.6.1 GENERAL

Anti-Icing procedures must be carried out exclusively by personnel trained and qualified on this subject.

Companies providing De-Icing/Anti-Icing services should have both a Qualification Program and a Quality Assurance Program to monitor and maintain an acceptable level of competence.

CAUTION	Both wings and stabilisers must receive the same and complete treatment on both sides of the aircraft. Serious aerodynamic problems could result if this requirement is not met.
Reference	Guidelines for Application of De-Icing Fluids are to be consulted in the yearly edition of SAE International documents AS6285 & AS6286.

8.6.2 PROCEDURE

Before commencing treatment, make sure all doors and hatches are closed. A suitable Anti-Icing procedure is to apply an even film of Anti-Icing fluid on all the aircraft surfaces which are to be protected. Start the spray on the highest part of the aircraft and cover evenly down to the lower parts. The correct thickness is applied when fluid just starts to run off the aircraft.

Anti-Icing fluid can be applied over a light frost covering, but a heavy frost covering must be de-iced followed by the Anti-Icing film. A thin coating of Anti-Icing paste may be applied to the leading edges of control surfaces to prevent adherence of any accumulation during taxi.

Do not allow Anti-Icing fluid containing alcohol to come into contact with acrylic windows or landing/taxi light(s) lenses, as crazing will take place. Clean windscreens before flight after any fluid contact. Avoid over-use of fluid as it could affect the mass balance of the aircraft control surfaces.

8.7 DE-ICING - APPLICATION

8.7.1 GENERAL

De-Icing procedures must be carried out exclusively by personnel trained and qualified on this subject.

Companies providing De-Icing/Anti-Icing services should have both a Qualification Program and a Quality Assurance Program to monitor and maintain an acceptable level of competence.

Both wings and stabilisers must receive the same and complete treatment on both sides of the aircraft. Serious aerodynamic problems could result if this requirement is not met.

8.7.2 PROCEDURE

Aircraft surfaces are very prone to impact damage. When using manual De-Icing methods/tools, only extremely light pressure must be used to treat surfaces. Do not, under any circumstance, try to chip, break or scrape ice of any aircraft surface.

Snow and ice can be removed from the aircraft exterior by:

- Hot De-Icing fluid.
- Brush and/or squeegee.

Snow and ice can be avoided from building up on the aircraft exterior by parking it in a hangar during periods of winter precipitation.

Cold Air:

- Make sure all the doors and the access panels are closed.
- Remove the loose-dry snow with a brush or blow it off the surface with cold air.
- When you remove the loose-dry snow from the external surfaces of the aircraft: Make sure you do not cause damage to the:
    - Vortex generators;
    - Angle of attack vanes;
    - Pitot/static tubes/vents;
    - Landing-gear micro-switch assemblies;
    - Antennas.

Make sure there is no snow in the clearances between the:

- Wing trailing-edges and the ailerons, flaps and the tabs;
- Horizontal stabilizer and the elevators;
- Vertical stabilizer and the rudder.

- Make sure you remove all the loose-dry snow systematically from the aircraft. Start at the highest point of the aircraft and move down. On the wings and the horizontal stabilizer, move from the root to the tip. Remove the snow along the trailing edges.
- Perform an inspection of the external surfaces of the aircraft.

Note: If you find ice on the external surfaces of the aircraft after you have removed the snow. Then follow the ice removal procedure to remove the ice.

8.7.3 DE-ICING - PRECAUTIONS

Precautions to be observed when De-Icing aircraft are as follows:

- Apply only enough fluid to remove the ice and snow and to leave a light coating on the aircraft exterior. Do not drench the aircraft. Over use could affect control surface balance.
- Do not spray fluid into intakes, pitot heads, engine inlets or other open vents. Keep hot spray away from windscreens and windows. Avoid spraying bearings or areas where grease has been applied.
- Do not ever use sharp tools to remove ice and snow from the aircraft.
- De-Icing of the wing, tail plane and fin trailing edges and leading edges of control surfaces should only be done if ice or snow is present to avoid degreasing the bearings. If De-Icing is necessary in these areas, then a greatly reduced flow rate must be used.
- When removing loose snow or melting ice from horizontal surfaces, a brush or squeegee should be used taking care not to damage any protrusions e.g. vents, aerials etc., which may be concealed by the snow. Sweep the snow and ice in such a direction as to prevent it entering into control surface gaps and hinges.
- Always mix the De-Icing fluid according to the manufacturer's instructions. The mixture should not be weaker than recommended because when the snow and ice melt, the fluid will be further diluted and therefore become less effective.
- Always keep power plant blanks and covers in a serviceable condition to maintain good intake protection against rain and snow entering the engine. Before fitting blanks, examine the intakes for the presence of ice. If any present, remove it. All apertures leading into the engine must be cleared of snow and slush.

8.8 POST DE-ICING CHECKS

It is very important to check that the aircraft is free from all contamination in general, in particular empennage, wing, windshield and control surfaces.

Before take-off, it must be made sure that the aircraft is free from ice and snow accumulated on the surfaces during the ground stop. To be able to inspect the wings and tail plane, a ladder sometimes has to be used. Even if the wing surfaces are clean, there might be some ice left from the previous flight on the wing leading edges and on the tail plane, this ice must also be removed before take-off.

Other areas that have to be checked carefully are the areas with no anti-ice protection, wing root, wing tip, nose cone, inlet scoops, pilot probes & inlet and outlet openings APU.

Normally, the Commander performs the post De-Icing check, at some airports the contracted De-Icing personnel, performs the check, in these cases they will give the Commander a De-Icing release in writing or by radio.

Note: It is very important that the Commander has received information regarding start time of the De-Icing, type of fluid and number of litres used, fluid mixture, freezing point and holdover time.

8.8.1 EXTERNAL AREAS REQUIRING SPECIAL ATTENTION

Landing Gear: The whole landing gear, including micro-switches, up-lock's, down-lock's, doors, and operating mechanisms are to be inspected for accumulation of snow, ice and frozen slush.

Flying Control Surfaces: Make sure all accumulations of snow, ice and slush are removed from all control surface hinge bearing and the control surface gap.

Immediately before take-off, flying control coverings and hinges are to be inspected to make sure that they are not contaminated by ice, snow or slush which could re-freeze and create a hazard. All surfaces must be free of snow and ice before take-off.

External Vents, Ducts and Engine Intakes: Make sure all static ports, ducts and vents are clear and that no snow or ice has built up in and around the engine intakes. It is not allowed to start the engine if the intake is not clear.

Clear ice outside engine pylon: The wing angle with the engine pylon above the wing surface is under certain weather conditions and contaminations causing the area outside the engine pylon to be exposed for clear ice.

8.9 FLUID DATA – CONCENTRATION TABLES

8.9.1 TYPE-I FLUIDS

Since Type-I fluid is more flowing than thickened fluid it will run of the wing surfaces after a certain time leaving only a marginal protective layer. This layer is seldom sufficient for prolonged protection. It is the heated mixture and the spray pressure rather than any chemical reaction that makes the fluid suitable as a De-Icing fluid.

Type-I fluids can be sprayed with a higher pressure since they do not consider the viscosity of the fluid as a criterion. The fluid must be heated so that a minimum temperature of +60ºC is reached at the nozzle when used as an Anti-Icing fluid. The same temperature is desirable when used as a De-Icing fluid.

The freezing point of the Type-I fluid mixture used for either one-step De-Icing/Anti-Icing or as a second step in the two-step operation shall be at least 10°C below the ambient temperature. The buffer may be 3°C (above OAT) when used as a De-Icing fluid. Type-I fluids supplied, as concentrates for dilution with water prior to use shall not be used undiluted.

Reference	For exceptions refer to fluid manufacturers' documentation.

8.9.2 TYPE-II, -III & -IV FLUIDS

Thickened fluids are available as so-called old-generation fluids and new generation fluids. The difference is mainly in that the older fluids only offer a generic holdover timetable while the new fluids have available brand-name holdover times.

Other than that, there is a difference in colouring; older certified fluids used no colouring while the new have different colours according to type.

Type-IV fluids in general where introduced to the market well after Type-II fluids. Temperature limits the use of thickened fluids more than it does Type-I fluids. Lowest usable outside air temperatures are in the range down to -25ºC.

Type-III fluid may have a different lowest usable outside air temperature. The application limit may be lower, provided a 7°C buffer is maintained between the freezing point of the neat fluid and outside air temperature. In no case shall this temperature be lower than the lowest operational use temperature as defined by the aerodynamic acceptance test.

Thickened fluids are in general not heated when used as Anti-Icing fluids. The viscosity will change (lower) if heated. Thickened fluids can be used for Anti-Icing, as a rule, with a 100/0%, 75/25% and 50/50% mixtures. There are exceptions for using thickened fluids as a De-Icing fluid. In this case the fluid is diluted below the normal Anti-Icing mixtures but whenever possible, Type-I fluid should be used for De-Icing to minimize the possibility of residue problems.

Reference	Guidelines for Application of De-Icing Fluids are to be consulted in the yearly edition of SAE International documents AS6285 & AS6286.

8.10 HOLDOVER TIME (HOT)

The Holdover Time (HOT) is the estimated time for which an Anti-Icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft, depending on weather conditions (as specified in the holdover time table).

Every Brand has its own HOT-tables, which means that there is some difference between airports and the products used.

Therefore, the tables below are valid for generic Type-I, -II, -III and -IV fluids. These generic values are less or equal than the values of the specific products. Consequently, if the specific manufacturer and brand name of the fluid is not known, the values below can be used safely.

Reference	Guidelines for Holdover Times are to be consulted in the yearly edition of SAE International documents AS6285 & AS6286. Guidelines for Application of De-Icing Fluids are to be consulted in the yearly edition of SAE International documents AS6285 & AS6286.

8.11 AUDIT OF SUB-CONTRACTED GROUND DE-ICING / ANTI-ICING COMPANY

In order to ensure that the contracted De-Icing company has the necessary authorisation and approval when required, and commands the resources and competence to undertake the task, the dedicated Auditor will in co-operation with the respective Hyperion Aviation Compliance Monitoring Manager at least perform one audit within each icing season for the most used De-Icing station(s). The audit will be done in accordance to “AEA Station Quality Assurance Program for Aircraft De-/Anti-Icing Operations”. The task may be shared with partners and other co-operating airlines.

A contracted De-Icing company must before the start of a De-Icing season inform the respective Hyperion Aviation Ground Operations Manager in writing of any sub-contracted De-Icing company. This in order to give Hyperion Aviation the possibility to perform audits on this important operations aspect.

If the contracted De-Icing company performs their own audit (in accordance with “AEA Station Quality Assurance Program for Aircraft De-/Anti-Icing Operations”) of a sub-contracted company it must be made available to Hyperion Aviation for review. (Original audit report with findings and any corrective actions).

All findings discovered during this audit must be corrected immediately. A written report of all findings will be submitted to the appropriate FBO/GSP/De-Icing company station manager. A letter of corrections must be submitted to the respective Hyperion Aviation NP Ground Operations within 10 days. A follow-up audit of the findings will be required.

8.12 STAFF TRAINING AND QUALIFICATION

The De-/Anti-Icing Company should have a tracking system that ensures that all required training has been satisfactorily completed and recorded for all ground personnel participating in the De-Icing process. Both initial and annual recurrent training should be conducted to ensure that they obtain and retain a thorough knowledge of aircraft De-Icing/Anti-Icing policies and procedures.

A list naming qualified De-Icing personnel and to what standard they been trained, should be made available to Hyperion Aviation on request.

8.13 FLUID STORAGE

Fluids used in de-icing and anti-icing operations shall be:

- Stored, handled and applied in accordance with criteria established by the Operator, fluid manufacturer and aircraft manufacturer;
- Manufactured in accordance with SAE specifications.

9 CRM and HPL

Note: reference: IATA AHM638

9.1 GENERAL

Crew Resource Management is a concept to utilise and improve the resource management skills of Flight Crew, Cabin Crew and Ground Handling Staff (both Operator and FBO/GSP) in the aviation sector. It is a Human Factors management system that effectively uses all available resources such as equipment, procedures, and people to promote safety and enhance the efficiency of flight and ground operations.

CRM is just one of the practical applications of Human Factors; it can be approached in many different ways, but there are some essential features. There should be a focus on the training of all Handling Staff as a team, not just as a group of technically competent individuals. The outcome is for everyone to work together, and opportunities should be provided for all to practice their skills together in the roles they would normally perform.

The CRM/Human Factors programme, should teach Handling Staff how to use their interpersonal and leadership styles in ways that foster team effectiveness. It should also teach Handling Staff that their behaviour during normal routine circumstances can have a powerful impact upon how well the whole team functions during high workload and stressful situations. Similar situations experienced in training increase the probability that a team will handle real stressful situations more competently.

To improve aviation safety and security within the ground handling process, Handling Staff need to communicate, cooperate, and work as a team. This is the role of CRM. ICAO has defined CRM as “the effective utilization of all available resources to achieve safety and efficiency”. Furthermore, ICAO has adopted the concept of CRM as an error management tool.

FBO/GSP CRM/Human Factors training should include at least three distinct parts:

- Building an awareness, where CRM/Human Factors issues are defined and discussed, as the concept must be understood.
- Practice and feedback, where trainees gain experience with CRM/Human Factors techniques. Certain skills must be taught and interactive group exercises must be accomplished.
- Continual reinforcement, where CRM/Human Factors principles are addressed on a long-term basis.

To be effective, CRM/Human Factors training must be accomplished in several parts and over several years. Skills that need to be developed include:

- **Communication/interpersonal skills.**
  Effective communication forms the basis for successful teamwork. Rank/positions, age/experience, attitudes and cultural differences can all affect communication.
- **Situational awareness.**
  Described as a total awareness of the surrounding environment, so the employee can differentiate between reality and the perception of reality. The differentiation enables Handling Staff to control distraction, enhance monitoring and cross checking, and to recognise and deal with themselves and other team members who are incapacitated.
- **Problem solving and decision making.**
  Aimed at developing conflict management within a time constraint. Conflict can be immediate or on-going and can require direct responses or tact to cope with it. The aim is to develop judgement within a certain timeframe; skills will be developed that are required to bring conflict to a safe end.
- **Leadership.**
  Teams need a leader to function effectively. The success of leadership skills depends on the understanding of components such as managerial and advisory skills that can be taught and practised. Improving leadership skills allows the team to function more efficiently.
- **Stress Management.**
  Factors that contribute to stress include mental and physical fitness, fatigue, social constraints, and environmental

constraints. Stress management is about recognising those factors, dealing with stress on an individual basis and helping others to manage their own stress.

- **Critique.**
  Undertaken to improve knowledge, skills and understanding. Critique includes the review of actual airlines accidents and incidents to create problem solving dilemmas that aircrew should act out. Critique, through the use of feedback, enhances crew members' awareness of their surrounding environment, assists them to recognise and deal with similar problems, and helps them to resolve situations that may occur.

Briefing (pre-task)	Different departments as a barrier
Shared Information	Distractions
Ability to listen	Noise
Ability to admit mistakes	Lack of information
Awareness of stress	Preconceptions
Clear concise instructions	Ego
Understanding each other's role	Selfishness

For a CRM/Human Factors program to be successful, it must be embedded into the full training programme, be continuously reinforced and become an inseparable part of an organisation's culture. CRM/Human Factors requires the support of senior management. CRM should be a regular part of the recurrent training requirement and should include refresher information, and practical and feedback exercises.

Team performances are becoming increasingly relevant in many operational settings. CRM/Human Factors is a standard method used in civil aviation to support team performance; it establishes a team approach to solving problems that can arise around and within the aircraft's work environment.

Two issues that may impact team performance are cultural diversity and aircraft type/size. Raised awareness about cultural diversity among Handling Staff can enable and support strong team performance. With respect to differences in aircraft type/size, it may be necessary to determine the impact of working on diverse aircraft on ground handling team performance levels.

9.2 TEAM PERFORMANCE - RESPONSIBILITIES

To improve aviation safety and security around and on-board aircraft, Handling Staff, Flight Crew and Commercial Attendants need to communicate, cooperate and work as a team.

Handling Staff should use effective communication, as this is important for briefings and procedures to optimize co-ordination.

Raised awareness among Handling Staff about cultural diversity can enable and support strong team performance.

10 SECURITY

Note: reference: EC No 300/2008 & all its amendments (EU 2015/1998), Relevant Authority NSP

Hyperion Aviation crew will communicate upon aircraft arrival at a station whether FBO/GSP Handling Staff is required and/or allowed to enter the aircraft. Only staff cleared and required to enter the Hyperion Aviation will be allowed entry in order for them to complete their task(s).

10.1 GENERAL

This section provides some basic security information needed by FBO/GSP Handling Staff in their daily operations when handling Hyperion Aviation aircraft. Note that Hyperion Aviation Security Manual (SecM) is distributed to a limited audience, hence this brief chapter with the most important and relevant instructions.

The objective of Hyperion Aviation security policies is to ensure that passengers are processed smoothly and efficiently, and that they are, and feel, safe and secure when they are within the company's jurisdiction.

All employees of Hyperion Aviation its FBO/GSP Handling Agents must maintain the highest standard of security and are jointly responsible for:

- Giving security a high profile, which should deter terrorist attacks.
- Being on constant alert and always aware of surroundings.
- Noticing any person who does not fit into his surroundings.
- At check-in, ensuring that the passenger's body language matches the spoken responses to the security questions.
- Informing Security & LEO/Police personnel as soon as anything suspicious is suspected.

10.1.1 INTERNATIONAL AGREEMENTS/CONVENTIONS

Agreements reached at five international conventions have provided the basis for most of the aviation security measures now in place around the world. These were:

- The Tokyo Convention in 1963 at which offences committed on board international flights were recognised and the powers of aircraft Commanders acknowledged.
- The Hague Convention in 1970 at which Contracting States agreed to make hijacking a serious offence.
- The Montreal Convention of 1971 at which the range of offences relating to safety of aircraft was increased. New offences included violence against people on board and damage to aircraft and navigation facilities.
- Montreal Protocol in 1988 for the Suppression of unlawful acts of violence at airports serving international civil aviation.
- The Montreal Convention in 1991 on the Marking of Explosives for the Purpose of Detection.

The International Civil Aviation Organisation (ICAO) is a specialist agency of the United Nations. It was introduced at the Chicago Convention of 1944 for the purpose of promoting the safe and orderly development of civil aviation. ICAO' business is conducted by a Council supported by a number of standing committees, one of which is the Committee for Unlawful Interference. This Committee develops security standards and recommended practices on behalf of the Council that are the published in Annex 17 to the Chicago Convention.

ICAO also publishes a security manual giving advice on the implementation of the standards and recommended practices in Annex 17. One of these standards requires contracting states to establish a National Aviation Security Programme.

10.2 AIRPORT ID CARD/BADGE

The local relevant national authority, NAA, requires Airport Authorities to maintain a secure environment for the operation of civil aircraft. To achieve this all airports are required to be secure from any acts of aggression arising from unauthorised entry of persons or the unauthorised placement of load on aircraft.

Legislation in place making it illegal to enter any part of an airport deemed as secure, without the proper authorisation or permission. Authorisation is given to bona-fide staff by way of their airport identity card, issued by the airport authority which must be displayed at all times when working airside. The ID remains the property of the respective airport authority and can be confiscated at any time due to infringements of the Airport Regulations or misuse. Confiscation of an ID means that the staff member will be prevented from accessing airside areas such as aprons and therefore unable to perform his duties.

It speaks for itself that all FBO/GSP and Hyperion Aviation staff having access to the ramp (RSA), must wear their airport identification/authorisation badge clearly visible. It should not be covered by clothing or PPE.

It should also be remembered that failure to wear an ID prominently when required to do so can also result in the ID being confiscated. New staff should also be made aware of the serious penalties for misuse of an ID and that false information given for the purposes of obtaining an ID is a criminal offence.

All FBO/GSP staff must read and abide by security notices and instructions, issued from time to time by Airport Authorities. Any information and/or instruction issued by employers should be regarded as issued in conjunction with such instructions of the Airport Authority. In the unlikely event of any conflict the Airport Authority instruction should be regarded as binding.

10.3 AIRCRAFT SECURITY

10.3.1 GENERAL

The importance of aircraft and airport security cannot be over emphasised, FBO/GSP Handling Staff must remain vigilant and report any unusual or suspicious article or person to the appropriate authorities.

FBO/GSP Handling Staff are never to accept a parcel or package on behalf of another individual for safekeeping and never place unauthorised load on board an aircraft, for any other person. Any request made in such circumstances must be reported immediately to the Supervisor who will advise the Security Manager and the aircraft Commander (if appropriate).

10.3.1.1 AIRCRAFT ON THE GROUND & PARKING

When Hyperion Aviation aircraft are to be left unattended the following must be complied with: Aircraft must be either:

- attended by an authorised person; or,
- secured/locked, with all doors/ holds closed.

Hyperion Aviation aircraft will be parked in a well-lit, highly visible area so that the presence of unauthorised personnel can be observed whenever possible.

Long-term parking of Hyperion Aviation aircraft should be in a well-lit area protected by a physical obstruction, e.g. fence, in order to prevent authorised access. If such protection is done by means of fencing it should be of sufficient height to deter scaling. A minimum height of 2.44m or 8ft is recommended, augmented, if possible, by inclined barbed wire or razor-taped wire. The fence area should, if possible, be visible to resident or patrolling guards.

If possible, Hyperion Aviation aircraft should be parked in an area monitored by a CCTV system.

10.3.1.2 DEFINITIONS

"Authorised person" is someone who has been authorised by Hyperion Aviation to be on-board the aircraft. Authorisations valid at each airport must be specified in the local procedures. These must be sent to the respective Hyperion Aviation Security Manager, when requested.

"Attended" means that the authorised person is in the immediate vicinity of the aircraft carrying out his/her normal duties - all persons approaching and/or entering the aircraft must be challenged and their credentials checked before access is permitted, unless they are known.

"Secure" means doors closed, and either steps/air-bridge removed or the cabin doors made tamper evident by means of seals/ stickers. If seals are used, the person who seals the doors must record the seal numbers, together with their name and the record must be retained for 24 hours. When access is next required, an appointed person must examine the seals to ensure they accord with the written record and show no signs of tampering. Where seal numbers do not accord, or where there is evidence of tampering, the respective Hyperion Aviation OCC must be informed, the aircraft must be searched and an ASR/GSR raised.

An air-bridge shall be deemed secure if access onto it or access from it into the cabin is only possible by the use of a full pass that when used to gain access to the air-bridge or cabin, records on a database the name of the pass-holder and the date, time and location of access.

10.3.1.3 RESPONSIBILITY

- The responsibility for attending the aircraft may be "handed to"/"accepted by" one authorised person to another. However, the last authorised person present on the aircraft must not leave the aircraft until it is secure.
- It is the responsibility of all staff operating on or around an Hyperion Aviation aircraft to be vigilant at all times and to challenge any person approaching, entering or leaving an aircraft who is not authorised to do so. (Challenge rules)
- Anyone finding an aircraft open and unattended, and therefore insecure, must report the fact to the "person designated to co-ordinate access control" (e.g. FBO/GSP Station Management) so that the aircraft can be secured. In such instances the respective Hyperion Aviation OCC must be informed, the aircraft must be subjected to a full search prior to being brought into operation and a GSR/ASR raised.

10.3.1.4 CHALLENGING ON THE RAMP

FBO/GSP Handling Staff and Hyperion Aviation Crews, must actively control access to the vicinity of Hyperion Aviation aircraft on the ramp and to the screened hold baggage.

The following procedures must be performed;

- FBO/GSP Handling Agents in the vicinity of the aircraft must actively check/challenge the ID of every person approaching the aircraft or the baggage unless they are part of your usual turnaround team. This is done by;
- stopping the person and asking to see the ID,
- checking that the ID belongs to the individual by comparing the photograph on the ID with the individual's face,
- FBO/GSP Handling Agents must ask/challenge why the individual is present on the ramp. Valid reasons are;
- servicing the aircraft i.e. engineering, re-fuelling, baggage loading;
- operating crew carrying out inspection;
- carrying out a statutory duty i.e. Customs, Police, Immigration, Port Health Authority, CAA Inspectors, EU and government Inspectors.

- FBO/GSP Handling Agents must monitor the activity on the ramp.
- FBO/GSP Handling Agents must ensure that all screened hold baggage is kept under supervision at all times.

FBO/GSP Handling Agents must report anything unusual or anyone behaving in a manner that causes concern to the respective Hyperion Aviation Commander.

10.3.2 TRAINING

Security training will be aimed at enabling FBO/GSP Handling Staff to act in the most effective manner to prevent acts of unlawful interference such as sabotage or hijack or to minimise the consequences of such interference.

10.3.3 BASIC PROCEDURES

When aircraft in the Restricted Security Area (RSA) are not in service and are unattended, their doors are to be closed and either:

- The doors sealed in a tamper-evident manner, i.e. using the respective Hyperion Aviation security seals;
- Authorised Hyperion Aviation representatives are supplied with blue Aircraft Security Seals and contractors are supplied with red Aircraft Security Seals, which are applied in accordance with Company procedures;
- Hyperion Aviation contracted loading staff are not issued with security seals so if necessary that a sealed aircraft needs to be opened the aircraft must not be left unattended until the crew arrives or a Hyperion Aviation Representative re-seal the applicable door;
- If the aircraft needs to be opened, the person accessing the aircraft must check the seals and if there is evidence of tampering (the seal is broken, missing or the words ‘void’ or ‘open’ are visible), the following action must be taken:
- Attempt to establish the cause of the damaged seal. (Cleaners, engineers, crew, etc.)
- If unable to establish the cause then the aircraft must be searched in accordance with the respective Hyperion Aviation Aircraft Security Check Procedures, and an occurrence report must be sent to the Security Manager as soon as possible.
- After opening any passenger door, service door or hold, the person accessing the door must remain with the aircraft until an authorised Hyperion Aviation representative arrives to reseal it;
- The aircraft must never be left unattended without tamper-evident seals fitted.

10.3.4 SEARCH AND CHECK PROCEDURES

There are pre- and post-flight searches performed by the respective Hyperion Aviation Crew of the aircraft with the following objectives:

Pre-Flight:
To ensure that nothing has been stowed in the aircraft that may cause or be used to jeopardise the safety of the passengers, crew or the aircraft.

For all practical purposes FBO/GSP Handling Staff can be involved in checking aircraft holds as part of the normal load control procedures. Before commencing loading, when not performed by crew, FBO/GSP Handling Staff must ensure that all the holds are empty except for any “crew baggage” or flight kits and if found, FBO/GSP Handling Staff should ascertain the validity of the items, and must notify the respective Hyperion Aviation Crew in case something suspicious is found.

Post Flight:
FBO/GSP Handling Staff must ensure that nothing is taken on board by a passenger, concealed in check-in baggage or that freight has been left or concealed on-board that may jeopardise the safety of the aircraft. FBO/GSP Handling Staff must notify the respective Hyperion Aviation Crew in case something suspicious is found.

10.3.5 SECURITY ON FBO/GSP PREMISES

Within FBO/GSP airside premises, located within the Restricted Security Area (RSA), all personnel should wear a Company ID or visitors pass. FBO/GSP Handling Staff will challenge any stranger that is not wearing a Company ID.

10.3.6 PACKAGES SENT TO FBO/GSP

Any package, letter or box delivered by a third party (DHL, FEDEX, UPS, TNT, etc.) for a Hyperion Aviation crew member, aircraft, customer or passenger, shall be claimed and held at the appropriate location in the FBO/GSP premises/facility and not be delivered to the aircraft.

10.4 SECURITY THREATS

Note: reference: Hyperion Aviation SecM (Restricted Distribution)

10.4.1 GENERAL

Any information or warnings that the safety of an aircraft is endangered by a terrorist bomb attack, hijack or other means shall immediately be reported to the FBO/GSP Station Manager and the respective Hyperion Aviation OCC in Antwerp; he or they decide upon actions to be taken and will give necessary instructions.

If no Hyperion Aviation staff is available at the airport concerned, the Commander will be responsible for all safety measures to be taken. If the crew is not present, the FBO/GSP station manager will take all safety measures.

Police or the local Security Manager makes the evaluation of a threat, as the local regulations stipulate. However, nothing shall prevent the Hyperion Aviation Commander or the company from taking precautions beyond the security level set by the Police or local Security Manager.

10.4.2 BOMB WARNING

Note: reference: Hyperion Aviation SecM

FBO/GSP personnel who may answer telephone calls must have ready access to a copy of the Bomb Threat Report Form and be familiar with its contents. The FBO/GSP Station Manager is responsible for ensuring that all staff is briefed on the standard "5W" responses to such a call:

- Where is the bomb?
- When will it explode?
- What does it look like?
- Why are you doing this?
- Who are you?

Note: see: “GOM/ Annex 7, SEC001"

10.4.2.1 TELEPHONE THREAT - HANDLING THE CALL

The FBO/GSP Station Manager is responsible for ensuring that all staff are fully conversant with the following procedures for handling a telephone threat:

a) Engage the caller in a lengthy conversation.
b) Ascertain the caller’s name and telephone number.
c) Prolong the conversation (as long as possible) by:
    i) Pretending to have difficulty in hearing.
    ii) Laughing and treating the call as a joke.
    iii) Asking the caller to hold while you fetch someone more senior.
    iv) Asking for the location of the bomb or device.
    v) Suggesting that the given flight number is incorrect.
    vi) If asked for money, explaining the impracticality of obtaining cash.
    vii) Alerting other staff to try to trace the call.

10.4.2.2 TELEPHONE THREAT - AFTER THE CALL

Immediately after the call is terminated the following information should be exactly recorded:

a) Precise words of the caller.
b) Likely age of the caller.
c) Any accent or jargon.
d) Any background noises.

10.4.2.3 THREATS – RELAYED BY OTHER ORGANISATIONS

Personnel who receive these threats must immediately relay them to their Station Manager who will contact:

- The respective Hyperion Aviation OCC,
- The local Police.

Note: see also: “GOM 10.4.3”.

10.4.2.4 BOMB THREAT – Hyperion Aviation & BUILDING/FACILITY

Note: reference: Hyperion Aviation SecM 4.2

If there is a Bomb-threat towards a Hyperion Aviation building/facility, the local Police and the (Airport) Security Manager will make sure that this building is evacuated.

10.5 POTENTIALLY DISRUPTIVE/UNRULY PASSENGERS

10.5.1 GENERAL

Passengers may become disruptive for a number of reasons, many of which will not be immediately apparent to Hyperion Aviation staff and cannot be predicted. However, the following paragraphs are concerned with passengers who can be assessed in advance as potentially disruptive. Often the potential for disruption arises because the passenger is travelling against their will. Potentially disruptive passengers include:

a) Deportees: Persons who have been ordered to leave the respective territory (for whom Immigration services may arrange escorts).
b) Illegal Entrants: Persons who have unlawfully entered the respective territory in breach of a deportation order or of the immigration laws. The Immigration Service may direct the removal of illegal immigrants by the aircraft operator who brought them into the respective territory, or make alternative removal arrangements particularly when no inbound carrier can be identified.
c) Inadmissible(s): Persons who are refused entry to the respective territory, and usually removed by the inbound carrier (sometimes referred to as “refusals”).
d) Prisoners: Persons in lawful custody, persons under arrest, or convicted criminals under escort.
e) Sports fans travelling in groups: Such persons may represent a hazard to the operation of an aircraft in certain circumstances.
f) Celebrities: Certain celebrities may attract high levels of media or public interest.
g) Passengers showing signs of intoxication either from alcohol or drugs/narcotics.

Hyperion Aviation normally does not carry passengers in the categories A, B, C and D shown above. Requests for carriage for these passenger categories will be handled exclusively by the respective Hyperion Aviation Accountable Manager.

10.6 DISRUPTIVE/UNRULY PASSENGERS

10.6.1 INTRODUCTION

Aggressive and threatening behaviour has unfortunately become more common in our society. The problem of unruly passengers is constantly increasing within the airline industry. Although unruly passengers represent only a minute proportion of our passengers as a whole, we must never forget that one aggressive passenger can jeopardise the safety of other passengers and the flight crew.

Unruly passengers affect all personnel involved in the process connected with a flight; their behaviour is often aggravated by alcohol. The consequence of such behaviour in the airport involves a negative impact on customer satisfaction accompanied by feelings of fear and intimidation.

When on the aircraft; in particular, in-flight the confined nature of the cabin magnifies the behaviour and fears other passengers and the crew feel.

In short: their behaviour is unacceptable and, in most cases, illegal.

This section has been produced to give FBO/GSP Staff involved in Check in and Ground Handling useful information and assistance in handling disruptive passengers and deciding if they should be allowed to travel.

10.6.2 DEFINITION

Note: reference: IATA Guidance on Unruly Passenger Prevention and Management, IATA Recommended Practice 1798a, Montreal Protocol 2014 & Tokyo Convention 1963.

The idea of an unruly or disruptive behaviour is described by a behaviour, which may or can be interpreted as dangerous or threatening and can, as a consequence, be a danger to the safety of staff and fellow passengers.

A passenger is considered unruly, when within the airport/FBO terminal, when he/she commits or displays following unruly and disruptive behaviours:

Refer to OM.A.10.16.1

10.6.3 DESCRIPTION

In the period 2007 to 2015 there were over 49.084 reported cases worldwide of unruly passenger incidents on board (on commercial airlines) aircraft in flight.

These incidents include(d) violence against crew and other passengers, harassment and failure to follow safety instructions. Thankfully the phenomenon is less common in business aviation, but cases have been reported, meaning that also business aviation operators, and their handling agents, must be prepared.

Unruly passengers are a very small minority. But unacceptable behaviour on board an aircraft can have serious consequences for the safety of all on board.

They inconvenience other passengers and lead to significant operational disruption and cost for airlines and operators. But due to loopholes in existing laws, there are many cases where those who commit serious offenses are not punished.

While the likelihood of the unruly passenger phenomenon is rather unlikely to present itself in connection with Hyperion Aviation business aviation operations, it is nonetheless useful to provide some basic instructions, just in case.

10.6.4 HANDLING UNRULY PASSENGERS

Refer to OM.A.10.16.1

10.7 REPORTING TO LOCAL LAW ENFORCEMENT/POLICE

Any of the following incidents are to be reported immediately to the local police in addition to the respective Hyperion Aviation OCC.

- Loss of notified firearms, including sporting weapons, and ammunition. (N.B. It is an offence for a carrier to fail to report to the police the loss or theft of any firearm or ammunition placed in its custody).
- Discovery of un-notified firearms, including sporting weapons.
- Discovery of explosives; explosive devices; detonators or incendiary devices.

11 GROUND OPERATIONS SMS

11.1 GENERAL

Refer to Hyperion Aviation Safety Management Manual.

The SMS is part of an overall management process that Hyperion Aviation has adopted in order to ensure that the goals of the Company can be accomplished safely. It embraces the principle that the identification and management of risk increases the likelihood of accomplishing the mission. Hazards can be identified, assessed and dealt with systematically throughout the organisation as a whole.

The processes in place in the Safety Management System include the active involvement of all managers and supervisors, who, through planning and review, will continue to promote efforts for continued improvement in safety and safety performance. The term "Safety Management" should be taken to mean safety, security and health management. The key focus is the safe operations of airworthy aircraft.

The Hyperion Aviation Safety Management Manual including the policies, procedures and instructions it contains, applies to all the various departments of HYPERION AVIATION LTD of which the conduct of their activities is regulated by Regulation (EC) No 1139/2018.

Departments include:

- Continuing Airworthiness (Part-CAMO)
- Flight Operations
- **Ground Operations and Operations Control Centre (OCC)**
- Crew Training

Nevertheless, SMS principles are applied in ALL company areas, to all Hyperion Aviation Employees, including Human Resources, Finance and other administrative personnel.

Therefore, other company manuals, including this Ground Operations Manual may contain the references to the SMS Manual in respect to the safety activities embedded into the other departments scope of work.

HYPERION AVIATION LTD business objectives are to supply a range of aviation services to customers safely and efficiently, whilst protecting the environment, and to meet a wide range of demands of our commercial clients.

In addition to its own safety management Hyperion Aviation encourages subcontractors and suppliers, such as FBOs / GSPs, to meet regulatory and company quality and safety standards. It is facilitated, monitored and verified through the Contractors Evaluation process described in the Compliance Monitoring System Manual.

11.2 REPORTING SYSTEM

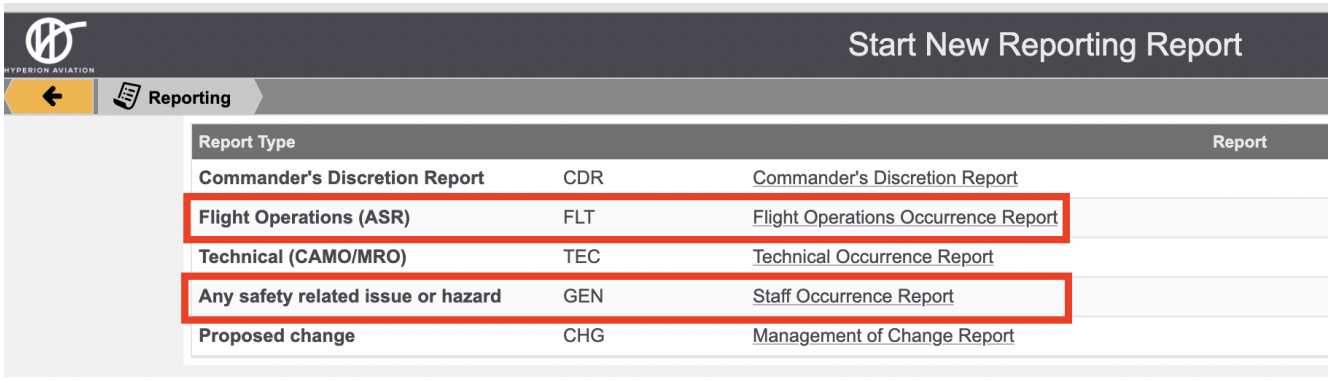
Refer to Hyperion Aviation Safety Management Manual Section 6 for Safety Reporting process and procedures.

11.2.1 Hyperion Aviation Occurrence Reporting System for third-party FBO/GSP Handlers

An airside incident is any event not classified as either aircraft ground damage or serious personal injury occurring during ground operations and includes any dangerous or hazardous occurrence.

FBO/GSP Handling Staff shall immediately advise every incident /accident on ramp that has occurred during ground time to Hyperion Aviation 24/7 OCC via fastest means of communication, followed as soon as possible by an occurrence report which will be forwarded to the respective Hyperion Aviation NP Ground Operations and to the Safety Department, where it will be stored for 5 years.

The standard Air Safety Report form or Any Safety Related Issue or Hazard form in Centrik can be used for the reporting of airside occurrences.



All FBO/GSP stations can file an Occurrence Report via external link to Hyperion Aviation safety reporting portal – Centrik.

https://hyperion.totalaoc.com/SMS/Case/externalreport.aspx?ReportingSubsystemId=0a1cc4b9-21a4-4475-b255-021d57b6394f

11.2.2 INVESTIGATION PROCESS

The reporting system is conceived in such a way that it encourages and facilitates feedback from FBO/GSP Handling Staff to report the safety hazards, expose safety deficiencies and raise safety or security concerns. It is a non-punitive system, offering also the possibility to make reports in an anonymous way.

The NP Ground Operations, in conjunction with the Safety Manager, will analyse all the occurrence reports, identify the predominant categories of hazard that caused the incidents and establish the proper corrective actions to be taken in order to address the operational deficiencies, hazards, incidents and concerns identified through the reporting system. This is part of a larger process of risk assessment, by which the occurrence of specific undesirable events and their level of severity can be estimated.

The investigation process is developed as a logical method of analysing factual information in order to identify the root cause(s). Safety recommendations based on the findings of the investigation will then be developed to prevent reoccurrence by corrective actions.

Safety recommendations are made for the purposes of accident prevention. Any safety recommendation should be based on the result of the analysis and subsequent conclusions of the investigation. It should result in factual information that

leads to corrective action plans rather than fault-finding. At the end of the process, after reviewing the entire event, the risk must have been eliminated or reduced to an acceptable level.

The reporting procedure will apply to any kind of events (aircraft ground damage, airside incidents, FOD, personal injury, check-in incidents, boarding incidents, dangerous goods, etc.) or events having a potential hazard. A yearly review of all events will take place to establish trends and areas which need more attention.

11.2.3 OCCURRENCES TO BE REPORTED

Refer to OMA Section 11.

Any hazard that has the potential to cause damage or injury or threatens Hyperion Aviation 's viability should be reported. Hazards and incidents should be reported if it is believed that:

- something can be done to improve safety;
- other aviation personnel could learn from the report, or;
- the system and its inherent defences did not work “as advertised”;
- any case of ground incident/accident, as required by the State laws or regulations.

Ref.: Annex IV of the Commission Implementing Regulation (EU) 2015/1018 of 29 June 2015 laying down a list of classifying occurrences in civil aviation to be mandatorily reported according to Regulation (EU) No 376/2014 of the European Parliament and of the Council, as follows:

Occurrences Related to Aerodrome and Ground Services

1. SAFETY MANAGEMENT OF AN AERODROME

1.1. Aircraft- and obstacle-related occurrences
(1) A collision or near collision, on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle.
(2) Wildlife strike including bird strike.
(3) Taxiway or runway excursion.
(4) Actual or potential taxiway or runway incursion.
(5) Final Approach and Take-off Area (FATO) incursion or excursion.
(6) Aircraft or vehicle failure to follow clearance, instruction or restriction while operating on the movement area of an aerodrome (for example: wrong runway, taxiway or restricted part of an aerodrome).
(7) Foreign object on the aerodrome movement area which has or could have endangered the aircraft, its occupants or any other person.
(8) Presence of obstacles on the aerodrome or in the vicinity of the aerodrome which are not published in the AIP (Aeronautical Information Publication) or by NOTAM (Notice to Airmen) and/or that are not marked or lighted properly.
(9) Push-back, power-back or taxi interference by vehicle, equipment or person.
(10) Passengers or unauthorised person left unsupervised on apron.
(11) Jet blast, rotor down wash or propeller blast effect.
(12) Declaration of an emergency (‘Mayday’ or ‘PAN’ call).

1.2. Degradation or total loss of services or functions
(1) Loss or failure of communication between:
(a) aerodrome, vehicle or other ground personnel and air traffic services unit or apron management service unit;
(b) apron management service unit and aircraft, vehicle or air traffic services unit.
(2) Significant failure, malfunction or defect of aerodrome equipment or system which has or could have endangered the aircraft or its occupants.
(3) Significant deficiencies in aerodrome lighting, marking or signs.
(4) Failure of the aerodrome emergency alerting system.

(5) Rescue and firefighting services not available according to applicable requirements.

1.3. Other occurrences
(1) Fire, smoke, explosions in aerodrome facilities, vicinities and equipment which has or could have endangered the aircraft, its occupants or any other person.
(2) Aerodrome security related occurrences (for example: unlawful entry, sabotage, bomb threat).
(3) Absence of reporting of a significant change in aerodrome operating conditions which has or could have endangered the aircraft, its occupants or any other person.
(4) Missing, incorrect or inadequate de-icing/anti-icing treatment.
(5) Significant spillage during fuelling operations.
(6) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen, nitrogen, oil and potable water).
(7) Failure to handle poor runway surface conditions.
(8) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident.

2. GROUND HANDLING OF AN AIRCRAFT

2.1. Aircraft- and aerodrome-related occurrences
(1) A collision or near collision, on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle (1).
(2) Runway or taxiway incursion.
(3) Runway or taxiway excursion.
(4) Significant contamination of aircraft structure, systems and equipment arising from the carriage of baggage, mail or cargo.
(5) Push-back, power-back or taxi interference by vehicle, equipment or person.
(6) Foreign object on the aerodrome movement area which has or could have endangered the aircraft, its occupants or any other person.
(7) Passengers or unauthorised person left unsupervised on apron.
(8) Fire, smoke, explosions in aerodrome facilities, vicinities and equipment which has or could have endangered the aircraft, its occupants or any other person.
(9) Aerodrome security-related occurrences (for example: unlawful entry, sabotage, bomb threat).

2.2. Degradation or total loss of services or functions
(1) Loss or failure of communication with aircraft, vehicle, air traffic services unit or apron management service unit.
(2) Significant failure, malfunction or defect of aerodrome equipment or system which has or could have endangered the aircraft or its occupants.
(3) Significant deficiencies in aerodrome lighting, marking or signs.

2.3. Ground handling specific occurrences
(1) Incorrect handling or loading of passengers, baggage, mail or cargo, likely to have a significant effect on aircraft mass and/or balance (including significant errors in loadsheet calculations).
(2) Boarding equipment removed leading to endangerment of aircraft occupants.
(3) Incorrect stowage or securing of baggage, mail or cargo likely in any way to endanger the aircraft, its equipment or occupants or to impede emergency evacuation.
(4) Transport, attempted transport or handling of dangerous goods which resulted or could have resulted in the safety of the operation being endangered or led to an unsafe condition (for example: dangerous goods incident or accident as defined in the ICAO Technical Instructions).
(5) Non-compliance on baggage or passenger reconciliation.
(6) Non-compliance with required aircraft ground handling and servicing procedures, especially in de-icing, refuelling or loading procedures, including incorrect positioning or removal of equipment.
(7) Significant spillage during fuelling operations.
(8) Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance, performance, balance or structural strength.

(9) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen, nitrogen, oil and potable water).
(10) Failure, malfunction or defect of ground equipment used for ground handling, resulting into damage or potential damage to the aircraft (for example: tow bar or GPU (Ground Power Unit)).
(11) Missing, incorrect or inadequate de-icing/anti-icing treatment.
(12) Damage to aircraft by ground handling equipment or vehicles including previously unreported damage.
(13) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident.

11.2.4 REPORTING OF INCIDENTS INVOLVING DANGEROUS GOODS

Any type of dangerous goods incident or accident must be reported, irrespective of whether the dangerous goods are contained in cargo, mail, passengers' baggage or crew baggage. The finding of any undeclared, omitted or wrongly- declared goods in cargo, mail or baggage shall be reported as well. Appropriate notification shall be given to the state in which the accident occurred, as well as to the relevant authority(ies).

According to IATA DGR, chapter 9.6.2, "the operator must report any occasion when dangerous goods not permitted under Subsection 2.3 are discovered in passengers' baggage. Such a report must be made to the appropriate authority of the State in which this occurred."

The initial report shall be made as soon as possible by the person directly involved in the occurrence as per procedures above. If available, photos and other relevant documents shall be included to the report.

In case of leakage and/or damage to packages, of which the integrity of the package cannot be guaranteed, the incident shall be reported immediately.

11.3 RISK ASSESSMENTS

Refer to the Hyperion Aviation Safety Management Manual Section 5 Safety Risk Management.

The risk assessment is an important component of this system. Risk assessment is a process to determine whether the level of risk is acceptable or whether more needs to be done to control or reduce the risk. In evaluating the risk, two variables will be taken into consideration: the tasks and duties of the FBO/GSP ramp/handling agent on the one hand, and the hazards associated with them on the other hand.

Safety risk is defined as the assessment, expressed in terms of predicted probability and severity, of the consequences of a hazard, taking as reference the worst foreseeable situation. Typically, safety risks are designated through an alphanumeric convention that allows for their measurement.

Efficient and safe operations or provision of service require a constant balance between production goals and safety goals. Aviation workplaces may contain hazards which may not be cost-effective to address even when operations must continue.

Risk assessment involves consideration of both the probability and the severity of any adverse consequences. In carrying out risk assessments, it is important to distinguish between hazard (the potential to cause harm) and risk (the likelihood of that harm being realized within a specified period of time).

Where risk is concerned, there is no such thing as absolute safety. Risks have to be managed to:

- a level "AS LOW AS REASONABLY PRACTICABLE" (ALARP).

When the acceptability of the risk has been found to be undesirable or unacceptable, control measures need to be introduced: the higher the risk, the greater the urgency. The level of risk can be lowered by reducing the severity of the potential consequences or by reducing the likelihood of occurrence.

The optimum solution will vary depending on the local circumstances and exigencies. In formulating meaningful safety action, understanding of the adequacy of existing defence is required.

The NP Ground Operations will use SMS procedures to perform risk analysis for ground handling tasks and procedures, which have shown concern in the past and might pose risks that affects safety.

12 ACCIDENT & EMERGENCY

12.1 GENERAL

This section sets out the instructions for reporting and investigating any accident to an aircraft belonging to Hyperion Aviation. The procedures are intended to ensure that the facts concerning an accident are reported, without delay, to the proper authorities and that the required follow-up procedures are initiated immediately.

An aircraft accident can be a very serious and distressing matter. Company personnel are urged to follow these procedures and anyone coming into contact with members of the public must be particularly diligent in following these guidelines.

The FBO/GSP Station Manager must ensure that:

- The latest version of this GOM is used.
- The manual is readily available to all staff.
- All staff are fully aware of the procedures which apply to their own department.
- Staff are designated to fulfil specific duties.
- Designated staff have nominated, fully-briefed deputies.

12.2 ACCIDENT REPORTING PROCEDURES

12.2.1 PASSENGER NAME LIST

It is the responsibility of the FBO/GSP Station Manager at the departure station(s) of any aircraft involved in an incident, to ensure that the documentation relating to that flight is handled correctly.

The following documentation must be collated and faxed and/or emailed to the respective Hyperion Aviation OCC.

The documentation must then be held in a secure location (usually a safe) until the original documents are required by the respective Hyperion Aviation OCC.

Documents required:

- Passenger Name List/Manifest
- Aircraft Search Form

FBO/GSP Handling Staff must not under any circumstances make any statement regarding the flight or its passengers to the media or to the public. Statements may only be made with the written approval of the respective Hyperion Aviation OCC.

Note: Information requests must be kindly refused by pointing out that the result of official investigations must first be awaited.

12.2.2 ANTICIPATED EMERGENCY INCIDENT

In the event that an incident is anticipated on landing, telephone contact must be established with the respective Hyperion Aviation OCC prior to landing and an open line (OCC can decide on an alternate telephone line which will be communicated) must be maintained until the aircraft has landed.

12.2.3 ERP MANUAL

Refer to Hyperion Aviation Emergency Response Manual.

Information about the Hyperion Aviation ERP Manual can be requested via the respective Hyperion Aviation NP Ground Operations.

13 COMPLIANCE MONITORING PROGRAM

13.1 INTRODUCTION

The Compliance Monitoring program enables Hyperion Aviation to monitor compliance with all legal requirements to ensure a safe operation. The Compliance Monitoring Manager is ultimately responsible for the implementation of the compliance assurance program and will verify by monitoring activity in the fields of flight operations, maintenance, crew training and ground operations that the standards defined by the Accountable Manager of Hyperion Aviation respectively, are being carried under the relevant Nominated Person. The Compliance Monitoring Manager will report directly to the Accountable Manager who is ultimately responsible for the Compliance Monitoring Program.

Hyperion Aviation Compliance Monitoring Program includes all planned and systematic actions through all departments, necessary to provide confidence that all operations are conducted in accordance with all applicable requirements, standards and procedures. The Compliance Monitoring Program will therefore consist of:

- Ground Handling Station Audits;
- De-ice/Anti-ice Audits;
- Ground Handlers Inspections;
- Fuel Supplier audits

These methods of Compliance Monitoring Control are supplemented by an internal reporting system which is used by our pilots to report if there are any discrepancies.

13.2 AUDIT DEFINITION & STATION SELECTION

An audit is a systematic and independent comparison of the way in which an operation is being conducted against the way in which the published procedures say it must be conducted.

With Hyperion Aviation, the audit will be a systematic and independent examination to determine whether compliance monitoring activities and related results comply with planned arrangements (regulations & procedures) and whether these arrangements are implemented effectively and are suitable to achieve the objectives in respect of compliance.

Due to the nature of the business, up to 45 destinations yearly, Ground Handling contracts (IATA SGHA) are sparsely established.

Hyperion Aviation are not limiting themselves to the stations selected, and can perform audits on any station(s) if there is any indication (through reporting and/ or inspections) that this would be deemed necessary.

Audits must include at least the following procedures and processes:

- A statement explaining the scope of the audit,
- Planning and preparation,
- Gathering and recording evidence,
- Analysis of the evidence.

13.2.1 GROUND HANDLING INSPECTION

13.2.1.1 PURPOSE

An inspection is the act of observing a particular event or action or document to ensure that established operational procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.
These ground handling inspections are used randomly all over the network, which will give us an indication of the performance on stations which we use. The inspections will be performed by a qualified Hyperion Aviation designate.

The respective Hyperion Aviation NP Ground Operations will either designate crew members, or members from ground staff to perform inspections upon his request.
Alternatively, desktop audits shall be performed on audits performed by 3rd party contractors where they are used to contract handling activities on behalf of Hyperion Aviation.

13.2.1.2 INSPECTION AREAS

Typical subject areas for inspections are:

- Individual Staff Training Records based on AHM1110 requirements and providers training programs,
- Ground Operations Procedures,
- Safety System,
- Security,
- DGR Dangerous Goods,
- GSE Maintenance.

For the audit process of GSP/FBO, Hyperion Aviation shall make use of standard IATA checklists present in Annex 3.1 this In addition to internal checklists.

13.3 GROUND HANDLING OCCURRENCE REPORTING

Hyperion Aviation have developed a third evaluation process on the performance of FBO/GSP suppliers used through an internal reporting system which is used by our pilots to report if there are any discrepancies. This reporting system is part of the Hyperion Aviation Safety Management System.

This reporting system can only be used by Hyperion Aviation employees to address any concern in regard to, but not limited to, handling activities on our aircraft. If needed, e.g.: if safe handling is compromised, an audit can be performed as a consequence of such a report(s).

To be able to close occurrence reports, a corrective action is required from the respective Hyperion Aviation NP Ground Operations for ground operations related issues.

13.4 FBO/GSP RECORDS SYSTEM

The FBO/GSP shall have a system for the management and control of operational records (training records, local manuals, GSE maintenance records, etc.) to ensure the content and retention of such records is in accordance with applicable regulations and to ensure operational records are subjected to standardized processes for:

- Identification;
- Legibility;
- Maintenance;
- Retrieval;
- Protection and security;
- Disposal, deletion (electronic records) and archiving.

13.5 SAFA & SACA AUDITS

Foreign Authorities (or their accredited representatives) may conduct an audit or inspection of any Hyperion Aviation aircraft at an outstation, without prior notification. In Europe, these inspections generally fall under the EASA Safety Assessment of Foreign Aircraft, SAFA & SACA programme. In other states, local protocols apply.

13.5.1 EUROPEAN AUTHORITY AUDITS AND INSPECTIONS

The inspector(s) should identify themselves to the Commander, or in his absence, to a member of the flight crew or to the most senior representative of the FBO/GSP company, prior to commencing the inspection.

As soon as practical, flight crew shall advise the FBO/GSP company that an inspection is being conducted.

All staff should cooperate with the inspectors to complete the inspection as quickly as possible in order to minimise any delay.

Upon completion of the inspection, a Proof of Inspection (POI) form will be completed by the inspectors, and it shall be signed by the Commander.

The SAFA & SACA programme requires that the inspectors provide the Commander with a copy of the form, and if this is not provided, it shall be requested by the Commander.

14 GOVERNMENT CLEARANCE REQUIREMENTS

14.1 GENERAL

In border crossing traffic, airlines must report/declare in writing the flight's routing, its crew (names) and persons (passengers) and goods carried, to the authorities at:

- airport of origin,
- transit, and,
- final destination.

Within the framework of the International Civil Aviation Organisation (ICAO) and the World Health Organisation (WHO), states have agreed upon the following standard reporting documents published in ICAO Annex 9 and in WHO International Health Regulations:

- General Declaration,
- Passenger Manifest,
- Embarkation/Disembarkation Cards.

14.1.1 GENERAL DECLARATION

The General Declaration (Gen Dec) is the basic report to the authorities as mentioned in "GOM 13.1" furnishing the information due to the public health, immigrations and customs authorities at departure, transit and arrival stations.

It will be prepared at the station of origin for the entire flight and completed by each station where the Gen Dec must be handed over to the respective authorities for inspection/clearance.

When a crew change (complete or partial) is planned en-route, the station concerned has to prepare a new Gen Dec for the remaining sector(s) of the flight.

14.1.2 PASSENGER MANIFEST

The Passenger Manifest is a supplement to the General Declaration; it is still required by some states demanding more detailed information on passengers than that contained in the Gen Dec.

A Passenger Manifest will be prepared when required according to country regulations:

- by authorities at the own station, showing boarding passengers, and/or,
- by authorities at subsequent stations, showing passengers disembarking there, and/or,
- by authorities at subsequent transit station(s), showing passengers in transit on the same flight.

Most countries requiring a passenger manifest will accept a consolidated manifest for several destinations.

15 ANNEX

15.1 FBO/GSP Requirements

15.1.1 GOM DISTRIBUTION

Outstation FBO/GSP shall make available copies of this GOM manual to its operations, maintenance, safety and security, as appropriate, as well as to FBO/GSP Handling Staff assigned to flights conducted by and on behalf of Hyperion Aero.

15.1.2 WAIVER - STANDARDS

If the FBO/GSP company either:

- is unable to meet any of the required standards in this document, or,

suffers an occurrence which causes FBO to no longer meet a previously accomplished requirement,

the FBO/GSP shall notify respectively Hyperion Aero immediately. At Hyperion Aero sole discretion we may issue a waiver to the respective FBO/GSP for any specific requirement in this document.

15.1.3 FBO/GSP INSURANCE

FBO/GSP shall maintain, at its sole cost and expense, adequate insurance coverage:

- Aviation General Liability Insurance. Coverage shall include those perils generally associated with a commercial general liability policy and specifically include hangar keeper's liability, contractual liability coverage for bodily injury and property damage, premises and operations coverage, independent contractor's coverage, products and completed operations coverage. FBO/GSP shall also require that all of its subcontractors maintain similar general liability insurance.
- Workers Co
- mpensation Insurance. FBO/GSP companies shall maintain workers' compensation insurance for all of FBO/GSP's Personnel, including coverage under the applicable law of the jurisdiction where the work will be performed. FBO shall also require that all of its subcontractors maintain similar worker's compensation coverage.
- Employers Liability Insurance. FBO/GSP shall maintain employer's liability insurance (in the United States typically Coverage B of a workers' compensation policy). FBO shall also require that all of its subcontractors maintain employer's liability coverage
- (Extended) Automobile Liability Insurance. Coverage shall include vehicles used in airport operations, third party liability for bodily injury and property damage and sudden and accidental pollution liability, with respect to vendor's vehicles whether owned, hired, non-owned, or assigned to or used in the performance of requested services.

15.1.3.1 FBO/GSP OPERATIONAL CAPABILITIES

The FBO/GSP shall ensure that it can provide the following services:
Communications:

- Telephone, internet, and facsimile capabilities to receive crew briefs and flight documentation from Hyperion Aero.
- Wireless internet capability in all Hyperion Aero Passengers' areas within the facility accessible to our passengers and crew(s).

Parking and Entrances:

- Entrance adapted for any PRM Passenger.
- Parking for passenger vehicles should be in a secured area with ample lighting.

Transportation:

- Upon request, FBO/GSP shall coordinate transportation for Hyperion Aero passengers or crew to and from local hotels and airline terminals.

15.1.4 FBO/GSP EMPLOYEE STAFF STANDARDS

The FBO/GSP company shall ensure operational positions within the scope of ground handling operations are filled by personnel on the basis of knowledge, skills, training and experience appropriate for the position.

Hyperion Aviation requires that FBO/GSP Handling Staff must possess a good working knowledge of English.

Appearance.
All FBO/GSP Handling Staff shall dress in appropriate, clean, neat, and professionally maintained attire appropriate for the job function(s).

Conduct.
All FBO/GSP Handling Staff shall conduct themselves in a professional manner.

Interaction with Aircraft Owners and Passengers.
Many Hyperion Aero passengers are celebrities, dignitaries, or highly recognizable individuals. Most of these individuals value their privacy. FBO/GSP Handling Staff are expected to interact with passengers only as necessary to provide excellent service or as requested by the passengers themselves.

Training.
FBO/GSP shall adequately train each employee as appropriate for their position. For line employees, FBO/GSP shall utilize an approved line training program. These programs enhance safety and service by emphasizing the knowledge and skills required of aviation line personnel and assure their competence through objective testing.

FBO/GSP shall maintain proof of all training and testing procedures for each employee. For line employees, FBO/GSP shall maintain all training and testing records to include: towing, marshalling, fuelling, customer service, ramp safety, security and other miscellaneous procedures as necessary.

Hyperion Aero reserves the right to disallow specific personnel from servicing/handling:

- a Hyperion Aviation aircraft, or,
- a Hyperion Aviation managed aircraft (private owner), and,
- all Hyperion Aviation passenger(s).

Drug Policy.
FBO/GSP shall have established documented policies that require all personnel to be free from alcohol and illegal drugs use. These policies will include the following requirements:

- A prohibition from performing any safety-sensitive or Passenger-facing function while under the influence of alcohol, drugs, prescription medication, or over-the counter medication that can adversely affect the individual's ability to perform his or her duties.

15.1.5 FBO/GSP PREMISES STANDARDS

FBO/GSP Premises Appearance.
The interior and exterior of the FBO/GSP shall be kept impeccably clean at all times. Any lighting must be replaced as soon as reasonably possible after its useful life has expired.

Safety.
FBO/GSP shall ensure that the facility areas utilized by Hyperion Aviation passengers and crew are free of recognized hazards. Examples of hazards include:

- Trip hazards such as electrical cords across a walk area, loose carpet or broken tile.
- Striking hazards caused by over-hanging equipment, unprotected aircraft static wicks in the hangar, etc.

- Door hazards such as “Dutch Doors” and moving hangar doors when individuals are not clear of the tracks.
- Electrical and chemical hazards such as unprotected outlets, worn cords, unprotected heat sources, and spilled hazardous materials are a few examples.
- Breathing or swallowing fumes from hazardous materials as a result of mislabelling or no label on a secondary container.

Surveillance.
FBO/GSP shall ensure that employees are able to maintain visual surveillance of all aircraft operation areas belonging to the FBO/GSP, i.e. ramp areas, hangars, lobby entrances, and parking lots. If visual surveillance of these areas is not possible, FBO/GSP shall maintain adequate surveillance by use of video monitoring equipment.

Controlled Access.
FBO/GSP shall ensure that all controlled access points to aircraft operation areas are continuously secured and/or monitored.

Signage.
FBO/GSP shall maintain proper signage, to include but not limited to, restricted areas, flammable materials, exits, emergency equipment, etc.

Fences.
FBO/GSP shall maintain a minimum of 2m (6 feet) between safety fences and parked ground equipment. All fences must be in good condition exempt from unsecured openings.

15.1.6 MANAGEMENT AND ADMINISTRATION

FBO/GSP management has documented clearly defined lines of authority.

Policies, procedures, and safety goals that enhance the FBO/GSP's operations and standards have been established, documented and implemented.

15.1.7 INTERNAL EVALUATION PROGRAM

FBO/GSP shall have a documented and controlled internal evaluation program in place. The internal evaluation program must be capable of identifying in-house deficiencies and measuring the FBO/GSP’s compliance with their stated policies, procedures and standards, and an established process for corrective actions.

FBO/GSP shall have an individual identified, in writing, responsible for the internal evaluation program including that person’s authority and responsibility.

15.1.8 FBO/GSP SERVICE REQUIREMENTS

All Hyperion Aviation service requests shall be completed within forty-five (45) minutes. A service request entails any services requested for an aircraft including but not limited to lavatory, water, fuel, and ground power.

FBO/GSP shall have adequate staffing to turn any Hyperion Aviation aircraft within a standard service request within forty-five (45) minutes.

FBO/GSP shall be responsible for loading and unloading all passenger’s baggage and ensuring nothing is loaded improperly or left behind, unless the crew directs otherwise.

If the FBO/GSP loads or unloads passenger baggage and any items are not loaded or unloaded as required, the FBO/GSP shall be responsible to ensure that the item will be returned to the respective Hyperion Aviation passengers as expeditiously as possible at the cost of FBO/GSP.

FBO/GSP shall have available in their (departure) lounge(s)/GAT terminal, at no additional cost, coffee, ice, potable water, and standard newspapers, unless contractual agreements specify otherwise.

15.1.9 THIRD PARTY SERVICE REQUIREMENTS

FBO/GSP shall have the capability to coordinate third party services including but not limited to those shown below. Any third-party services coordinated by the FBO/GSP must be in accordance with the below requirements.

15.1.9.1 CATERING

Hyperion Aviation places catering orders via the local caters in most locations. Hyperion Aviation catering is ordered by order number and the caterer is instructed to clearly mark the catering with the order number. Registration/tail numbers are not to be used because of the many changes made to the aircraft assignments. Catering that arrives without an order number, the incorrect order number, or different food and/or beverage items, shall be immediately reported to our respective Hyperion Aviation commercial team.

To avoid complaints of incorrect catering orders the FBO/GSP should verify the food container descriptions and quantity match the catering receipt.

When available and used, the catering refrigerator shall be in a convenient area but not accessible to the general public. The FBO/GSP shall ensure that harmful chemicals, hazardous waste containers, cleaning and maintenance supplies are not stored in the same location as the catering refrigerator.

The catering refrigerator and ice machine shall be well maintained, regularly cleaned and separated from employee food. The refrigerator shall be kept sanitary, have its filter replaced according to the manufacturer's recommended schedule, and contain an interior temperature gauge to monitor food safety.

15.1.9.2 NON-GSE/NON-SERVICE VEHICLES ON RAMP

At locations that allow (private/for-hire) vehicle/limousine/van access to the ramp in order to collect passengers at the aircraft, the FBO/GSP must have written driving guidelines (Air Operations Area AOA) available for distribution to drivers of for hire vehicles.

FBO/GSP shall ensure that all drivers of for-hire transportation alert the FBO:

- that they have arrived,
- who they are, and,
- what flight they are meeting.

FBO/GSP shall require the driver to present a Photo ID and/or other documentation indicating they are the accurate driver for hire.

Drivers must obtain permission from the FBO/GSP before entering the ramp/AOA and be supervised by the FBO while driving onto the ramp/AOA.

FBO/GSP shall ensure that vehicles are not driven within 15m (50 feet) of any Hyperion Aviation aircraft until the aircraft engines are shut down and the aircraft wheels are chocked. Vehicles should not approach the aircraft until motioned forward by a FBO/GSP ramp agent.

FBO/GSP shall ensure that all vehicles approach any Hyperion Aviation aircraft at an angle (positioned away from the aircraft and any part thereof) in case of brake failure on the vehicle. Vehicles must not drive closer than within 5 meters (15 feet) of the wings, tail, or fuselage of Hyperion Aviation Aircraft.

FBO/GSP shall ensure that when any vehicle is moving on the ramp/AOA, the vehicle must have headlights on. When the vehicle is waiting outside the ramp/AOA, only parking lights should be illuminated ensuring no visual distraction to taxiing aircraft.

FBO/GSP shall ensure that while parked at the Hyperion Aviation Aircraft, the vehicle engine must be turned off, automatic transmission in park, and parking brake applied whenever operator is not in the driver's seat or when passengers are entering or exiting the vehicle.

A member of the respective Hyperion Aviation crew must be available to escort passengers from vehicle.

FBO/GSP line personnel should inform driver of vehicle's departure route.

15.1.9.3 AIRCRAFT CLEANING

Aircraft cleaning services may sporadically be used and may involve a third-party vendor. The FBO/GSP or vendor should contact the Hyperion Aviation OCC with any inquiries relating to ad/hoc aircraft cleaning.

As a general rule:

- Only Hyperion Aviation approved aircraft cleaning suppliers are authorized to perform cleaning on Hyperion Aviation aircraft.
- Notwithstanding the fact that many Hyperion Aviation aircraft carry their own battery- operated vacuum cleaner, FBO/GSP should have available an operable hand vacuum with a rotating brush as Hyperion Aviation crews may request a hand vacuum from time to time.
- Toilet Servicing: see "GOM 4.5".

This section, the text hereunder, applies to flights arriving in the USA from abroad (except Canada) only:

Regulated Garbage (any catering that originates abroad, and is brought into the USA):

- All waste material derived from foreign origin fruits, vegetables, dairy products and meats;
- Food wrappers and packaging materials;
- Food waste;
- Unconsumed or partially consumed passenger and crew meals available during the flight.

Regulated garbage is subject to special disposal requirements:

- Verify with the governing authority the requirements for removal of regulated garbage from the aircraft.
- FBO/GSP service personnel are required to dispose garbage in regulated garbage container, or with an authorized disposal agent. Use double bags, or bags of 4mm thickness.
- Garbage that does not contain, or is not contaminated with, food waste is considered trash and is not regulated (e.g., newspapers, magazines, empty non-dairy beverage containers.)

15.1.9.4 DE-CATERING (USA STATIONS)

This section applies to flights arriving in the USA from abroad (except Canada) only.

De-catering is the process of removing all regulated garbage from the aircraft at the initial (US) port of entry.

FBO/GSP trained line service personnel may remove regulated garbage from the aircraft and place it at the bottom of the entry stairs, or in a regulated garbage container. Use double bags or 4 mil thickness sealed bags.

Any subsequent handling, transportation, or disposal must be conducted by trained personnel in accordance with a Compliance Agreement between the handling firm and US Customs Border Patrol (CBP). If not specifically asked by line service personnel, advise them there is regulated garbage on board that requires removal.

Note: Do not continue flight or reposition the aircraft to another location on the airport until removal is completed. Complete the removal of regulated garbage in timely manner at the airport location where US Customs/Border Patrol processing is conducted.

15.1.10 HEALTH AND SAFETY COMPLIANCE REQUIREMENTS

FBO/GSP based within the USA must comply with any applicable Federal, State, and local Environmental Health & Safety regulations.

Non-US FBO/GSP's are expected to operate within International Air Transport Association (IATA) regulatory guidelines for that specific country.

15.1.11 CONFIDENTIALITY & AIRCRAFT VISIT(S)

FBO/GSP stations shall ensure sightseers and visitors are not be allowed on board or near a Hyperion Aviation aircraft.

15.2 ADMINISTRATION

15.2.1 STATION LOG BOOK – FLIGHT FOLDER

FBO/GSP stations must keep a log book which acts as a documentary record of information and/or action needed to be relayed from one person or one shift to another. The information on this log book should be precise and to the point, cross referenced with memo, telex or letter references in the respective flight file. Entries on this log book should be timed.

The FBO/GSP Station Manager or his delegated representative must check this logbook at appropriately frequent intervals and take such action as is deemed necessary.

15.2.2 FLIGHT HANDLING RECORDS

FBO/GSP stations should maintain a system whereby information relating to a specific flight is readily available.

It is suggested to use a logbook/folder for this purpose. This could be, e.g., a logbook/folder with 31 numbered pockets into which messages, memos and other information can be filed under the appropriate day of the month. Each day the file will be emptied of all the information relevant to that day, which will then be acted upon.

Example: An email regarding a passenger with special catering wishes, or a medical condition, travelling on a flight one week later may be received today. This message must be kept in the appropriate date pocket.

On the departure date, this message is to be readily available among other information/ instructions for that particular flight. It is the Station Manager or his delegated staff's responsibility to scrutinise the flight files for any memos, letters or telex and take necessary action.

15.2.3 REQUIRED DOCUMENTATION

It is mandatory to make the following manuals available in the FBO/GSP Ground Operations Offices at stations, to ensure correct procedures are followed:

Manual Name	Version/Edition
Hyperion Aviation Ground Operations Manual	**Current Version**
IATA Dangerous Goods Regulations Manual 64	**Current Version**
Local Airport Ramp Safety Manual	**Current Version**
Local Airport ERP Emergency Response Plan	**Current Version**
FBO/GSP Authored - Operations Manual	**Current Version**

All manuals shall be of the current version and stored (either in paper version or in electronic version) in area(s) where ground operations are conducted including passenger check-in and boarding.

Hyperion Aviation Ground Operational Manual in electronic format (PDF) is available on our website, which is available for download to all Hyperion Aviation appointed FBO/GSP.

15.2.4 RETAINING DOCUMENTS

It is a mandatory requirement to retain (original signed copy) Computer Flight Plan (CFP), Aircraft Search Form, departure messages of all Hyperion Aviation flights in the station for a minimum period of six months.

Retaining of documents is applicable for all stations receiving full flight plan(s) or part of it.

Documentation should be maintained in a secure area with easy identification, controlled and accessible when required.

Documentation used in ground operation functions shall contain information that is clear, legible and accurately represented. The documentation shall be presented in a useable format that meets the need of ground operational personnel and where required, be approved by the regulatory authority.

15.2.5 INCIDENT/ACCIDENT REPORT - RETAINING

All accident / incident report(s), related to Hyperion Aviation aircraft, must be retained for a minimum period of two years in order to comply with Hyperion Aviation policy.

15.2.6 OPERATIONS PERSONNEL RECORDS

Individual training records shall be maintained and kept for each individual staff member working at the FBO/GSP station. Each training event/session shall be recorded, documented, both for initial and recurrent training. Training records shall show no unexplained gaps.

Training records will include attendance sheets/logs, training certificates/diploma, (graded) test results and each of these will show clearly the date of issuance/attendance and be signed where applicable. Visible signs of tampering/corrections are not acceptable.

Training records issued for ground operation functions shall contain information that is clear, legible and accurately represented. The documentation shall be presented in a useable format that meets the need of ground operational personnel and where required, be approved by the regulatory authority.

15.2.7 GSE MAINTENANCE RECORDS

Ground Support Equipment (GSE) used for handling of all flights must be serviceable and in good mechanical condition this will be evidenced by a corresponding maintenance program, which must be in place.

Individual GSE maintenance records shall include yearly general inspection records, as well as including records of extra maintenance completed on GSE.

All GSE maintenance records related to handling Hyperion Aviation aircraft, must be retained for the entire duration of service with the FBO/GSP.

15.2.8 AUDITS - RECORDS

In order to evaluate the agreed standards of competence, Hyperion Aviation have the right to carry out station inspections and/or quality audits of the FBO/GSP Handling Company at regular intervals.

15.2.9 FBO/GSP (GROUND) OPERATIONS MANUAL

The FBO/GSP company, shall have a (Ground) Operations Manual, which may be issued in separate parts, that contains operational policies, processes, procedures and other information necessary for ground handling personnel to perform their duties and be in compliance with applicable regulations, laws, rules and also procedures specific to Hyperion Aviation.

The FBO/GSP Handling Agent shall ensure the current edition of the (Ground) Operations Manual is available in a usable format at each location where ground handling operations are conducted and available to Hyperion Aviation if required.

15.3 AIRCRAFT SECURITY

Reference: ICAO Annex 17, ICAO Document 8973, IATA's Security Manual, EU Regulations (EC) 300/2008 and (EU) 2015/1998

FBO/GSP must meet or exceed the requirements contained in:

- ICAO Annex 17,
- ICAO Document 8973,
- IATA's Security Manual, and,
- EU Regulations (EC) 300/2008 and (EU) 2015/1998 (and all its amendments).

We will summarise a reminder of some basic rules:

- Always challenge everybody in and around the aircraft to present himself, ask the purpose of his visit and request the person to show his airport access badge. Do not hesitate to challenge anyone who is clearly not involved in the servicing of the flight and/or not wearing a visible airport access badge.
- Never leave the aircraft unattended with the doors open and stairs or jetway in place.
- When you leave the aircraft always ensure doors are closed.
- Avoid at all times a mixing up of arriving passengers and departing passengers at the apron when they walk to/from the aircraft.
- Hyperion Aviation Crew, FBO/GSP Handling Staff, or both, will escort passengers to the aircraft. Unescorted access to/from a Hyperion Aviation aircraft is strictly prohibited.
- Always contact our Crew and airport security when you find or see something suspicious.

15.3.1 FBO/GSP EMPLOYEE - SECURITY

- FBO/GSP must conduct an employment background check for all employees. This background check must include the employee's driving record (where legal and possible) and criminal history record checks (CHRC).
- FBO/GSP shall have a pre-employment drug-screening program (where legal and possible) for all employees that interact with Hyperion Aviation aircraft, crews, and passengers.
- If FBO/GSP is required to have a security program mandated by the national regulatory authority (NAA), that program must be approved and current.
- FBO/GSP shall provide documented evidence that personnel required to perform duties under any State required security program have received the required training specified by that program.
- FBO/GSP shall provide to all employees its general security policies and procedures in addition to any State mandated security program.
- FBO/GSP shall provide general security training to all employees as a part of the company's initialisation process and on an annual recurrent basis. Evidence of this training must be documented.
- FBO/GSP shall have a process in place for clearing all passengers and employees with access to aircraft against the most recently issued federal, state and local watch lists, if applicable.

- FBO/GSP shall have a policy that restricts access to aircraft and the ramp to only those persons with operational or maintenance functions or as specifically approved by FBO/GSP.

Note: see also “GOM 10”.

15.4 FBO/GSP TRAINING REQUIREMENTS

15.4.1 TRAINING PROGRAMMES

FBO/GSP Handling Agents shall have a training programme in place and procedures to review and update it to ensure:

- continuous improvement and effectiveness;
- Incorporation of the latest regulatory and operational changes in a timely manner.

15.4.2 INITIAL AND RECURRENT TRAINING

FBO/GSP Handling Staff, including personnel of external (outsourced) providers, shall complete:

- Initial training prior to being assigned to perform such ground operational duties;
- Recurrent training, with the exception of recurrent training in dangerous goods, on a frequency not less than once during every 24-month period.

Initial and Recurrent Training shall include:

- Familiarisation training on applicable local regulations;
- In-depth training on requirements, including policies, procedures and operating practices;
- Training in human factors principles;
- Safety training on associated operational hazards;
- Load control, basic principles, excluding weight & balance;
- Ground support equipment (operation & hazards);
- Passenger handling;
- Baggage handling;
- Aircraft loading;
- Airside safety.
- Low visibility & adverse weather conditions.

Note: Airside safety training, normally provided by local airport authorities, should include:

- Safety philosophy;
- Safety regulations;
- Hazards;
- Human factors;
- Airside markings and signage;
- Emergency situations;
- FOD prevention;
- Personal protection;
- Accidents, incidents, near misses;
- Risk assessment;
- Airside safety supervision.

15.4.3 DANGEROUS GOODS TRAINING

FBO/GSP Handling Staff need to ensure that personnel which functions include passenger and baggage handling and aircraft loading receives Initial and Recurrent Dangerous Goods Training on a frequency not less than once within 24 months of previous training in dangerous goods.

The curriculum for dangerous goods training will need to address the following:

- General philosophy, incl. IATA DGR manual familiarisation;
- Limitations;
- Labelling and marking;
- Recognition of undeclared dangerous goods;
- Provisions for passengers

15.4.4 FUELLING TRAINING

If FBO/GSP Handling Staff performs fuelling then it must ensure that ground handling personnel assigned to perform aircraft fuelling operations complete initial and recurrent training on a frequency of not less than once during every 24- month period.

15.4.5 DE-ICING/ANTI-ICING TRAINING

Note: reference: SAE International in its documents AS6285 & AS6286"

If a FBO/GSP Handling Agent performs aircraft ground de-/anti-icing operations personnel must complete initial and recurrent training on a frequency of not less than once during every 12-month period. Training specifications can be found in: SAE International in its documents AS6285 & AS6286.

Note: see also "GOM 8".

15.4.6 AIRSIDE DRIVING TRAINING

The FBO/GSP Handling Agent shall have a program that ensures the personnel at all stations with duties that require the operation of vehicles and/or equipment in airside areas have a complete airside driver training and, as applicable:

- Complete qualification process required by the relevant authority;
- Obtain an operating license in accordance with requirements of the relevant authority

15.4.7 GSE OPERATIONS TRAINING

FBO/GSP Handling Staff shall have a program that ensures that all personnel with duties that require the operation of GSE:

- Have complete training and evaluation in the operation of GSE as applicable to their assigned operational function(s);
- Are qualified and/or authorised to operate GSE in station operations.

15.4.8 CUSTOMER SERVICES TRAINING

Note: reference: GOM 1.9

The FBO/GSP Handling personnel involved in Customer Service should complete training that ensures:

- Recognition to provide not just "good", but "exceptional" customer service.
- Learn how to recognise "poor" customer service.
- Learn how to "wow" your customer (Exceed expectations).

15.4.9 SMS TRAINING

Note: reference: ICAO SMM Document 9859

FBO/GSP Handling Staff should have a training program that ensures the personnel performing functions within the ground handling operations scope are trained and competent to perform SMS duties.

The scope of such training should be appropriate to each individual's involvement in the SMS. Within an SMS, both management and non-management personnel are expected to complete SMS training. The content of such training is appropriate to the individual's responsibilities and involvement in the SMS.

A training curriculum typically includes modules that provide an overview of the elements of SMS, such as:

- Event investigation and analysis techniques;
- Hazard identification;
- Risk assessment and mitigation;
- Audit principles and methodology;
- Communication techniques;
- Safety reporting;
- SMS implementation, analysis and continual improvement;
- Emergency response preparedness.

15.4.10 TESTING & EVALUATION

FBO/GSP companies will ensure that at the end of training they shall have a process that includes testing or evaluation by written, oral or practical means, as applicable, to satisfy the requirement(s) for operational personnel to demonstrate adequate knowledge, competency or proficiency to perform duties, execute procedures or operate equipment.

15.4.11 TRAINING RECORDS

Records of training must be made available to Hyperion Aviation upon simple request. For that purpose the FBO/GSP shall have a process for maintaining training records that provides for retention, identification, storage, protection, retrieval, and (secure) disposal of records.

15.5 FBO/GSP QUALITY ASSURANCE PROGRAM

FBO/GSP companies shall have a quality assurance program that provides for the auditing and evaluation of the FBO/GSP management system and operational functions within the scope of ground handling operations at planned intervals. It will furthermore ensure that it is:

- Complying with applicable regulations and standards of IATA's Airport Handling Manual;
- Complying with applicable regulations and standards of Hyperion Aviation.
- Satisfying stated operational needs;
- Identifying undesirable conditions and areas requiring improvement;
- Identifying hazards to operations.

The quality assurance program is applied throughout the FBO/GSP handling organisation and is typically structured to define:

- Audit frequency;
- Audit initiation, including scope and objectives;
- Planning and preparation, including audit plan and checklist development;
- Observation and gathering of evidence;
- Analysis, findings and actions;
- Reporting and audit summary;
- Follow-up and close out

The process normally includes a closing meeting whereby the auditor and the audited FBO/GSP have a comprehensive discussion and reach agreement on the findings and corresponding corrective or preventive actions. The FBO/GSP shall ensure that the quality assurance program utilises auditors that:

- Have been appropriately trained and qualified;
- Are impartial and functionally independent from operational areas to be audited

The FBO/GSP shall have a process for addressing findings resulting from audits of functions within ground handling operations, which ensures:

- Identification of root cause;
- Development of corrective action, as appropriate, to address finding(s);
- Implementation of corrective action in appropriate operational areas;
- Evaluation of corrective action to determine effectiveness.

The FBO/GSP shall have an audit planning process and sufficient resources to ensure audits of ground handling operations are:

- Scheduled at intervals to meet regulatory and management system requirements;
- Completed within a specified time period.

A process shall be in place to ensure significant issues arising from audits are subject to regular review by senior FBO/GSP ground handling management. Audit results require to be made available to Hyperion Aviation upon simple request.

16 Aircraft

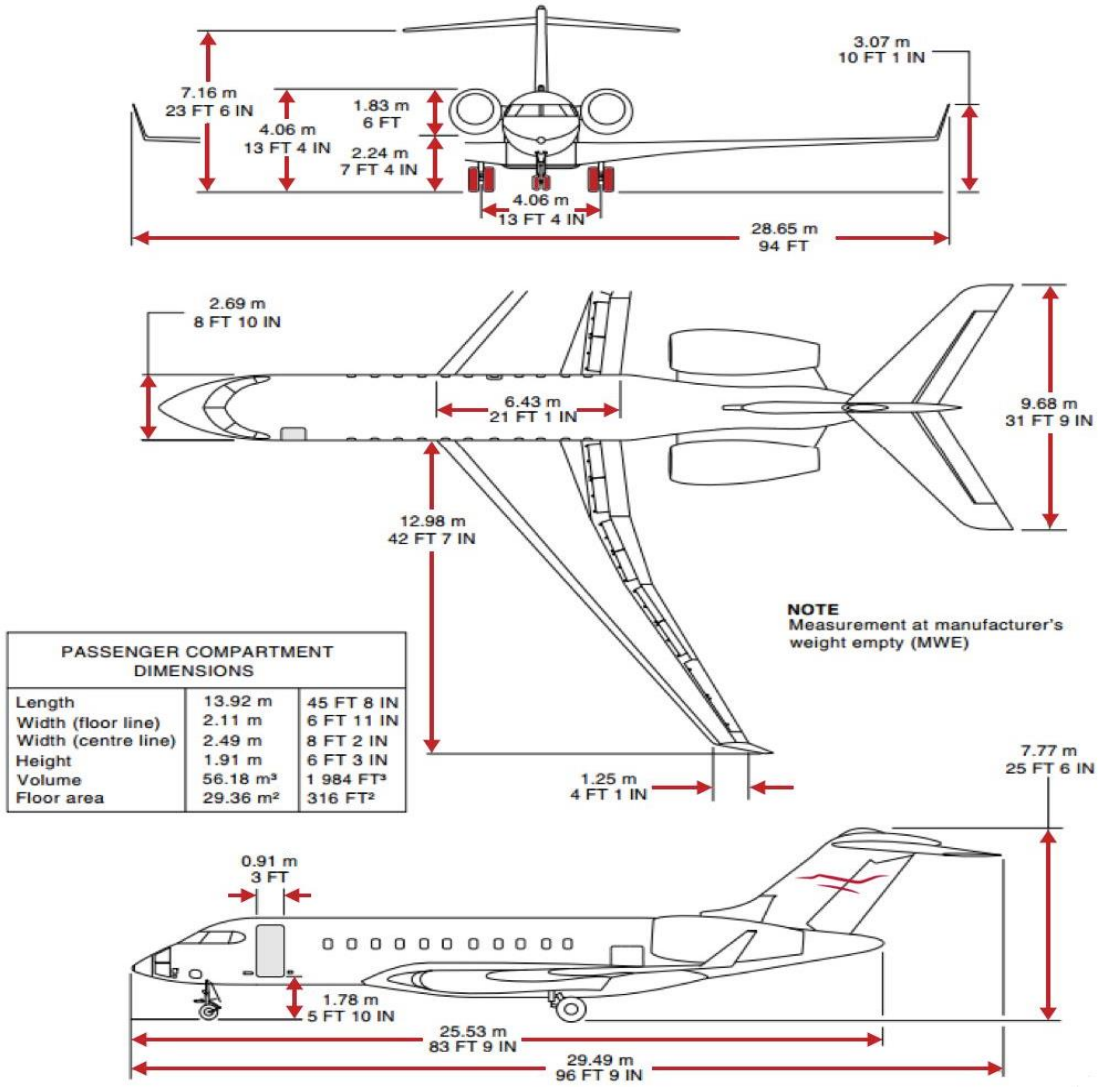
16.1 MALTA AOC - HYPERION AVIATION AIRCRAFT

Aircraft Type	Version	Serial Number	Registration	Seating Capacity	GOM/B Chapter
Bombardier Learjet 45	LJ45	45-055	9H-MSS	9	In Progress
Bombardier Challenger 850	CRJ2	8077	9H-VGA	15	In Progress
Bombardier Global Express 5000	GLEX	9186	9H-MBA	13	√
Bombardier Global Express 6000	GLEX	9437	9H-AMF	14	√
Bombardier Global Express 6000	GLEX	9847	9H-EROES	14	√
Bombardier Global Express 7500	GL7T	70172	9H-FMA	19	In Progress
Cessna Citation Bravo	C55B	1007	9H-SAL	8	√
Cessna CitationCJ3	C25B	173	9H-TGR	8	√
Bombardier Global Express 6000	GLEX	9554	9H-VEGA	8	√

Cessna 650 Citation VII	**C650**	**6507102**	**9H-GMG**	**7**	**In Progress**
Dassault Falcon 900LX	**F900**	**270**	**9H-DCD**	**14**	√
Bombardier Global Express 5000	**GLEX**	**9273**	**9H-ASB**	**8**	√
Bombardier Global 500	**GL5T**	**9633**	**9H-AVA**	**12**	**In Progress**
Dassault Falcon 8X	**FA8X**	**405**	**9H-GRC**	**14**	√
Bombardier Challenger 600	**CL60**	**5764**	**9H-ALD**	**9**	**In Progress**

16.2 AIRCRAFT PRESENTATION - BOMBARDIER GLOBAL 5000 (GLEX)

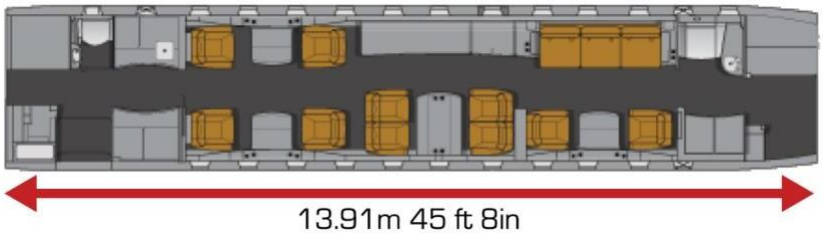
16.2.1 AIRCRAFT DIMENSIONS

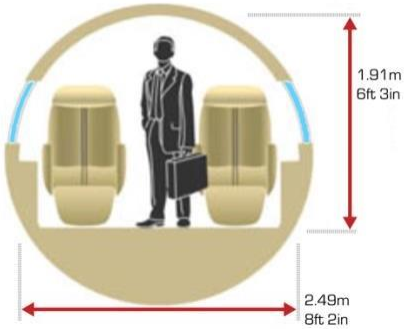


PASSENGER COMPARTMENT DIMENSIONS		
Length	13.92 m	45 FT 8 IN
Width (floor line)	2.11 m	6 FT 11 IN
Width (centre line)	2.49 m	8 FT 2 IN
Height	1.91 m	6 FT 3 IN
Volume	56.18 m³	1 984 FT³
Floor area	29.36 m²	316 FT²

16.2.2 DOORS & CABIN & INTERIOR DIMENSIONS

The cabin offers 15 seats with adjustable backrests, folding armrest and a large folding executive table in the centre.





Cabin Door, External Opening & Closing:

The passenger/crew door is the usual entrance and exit point for the passengers and crew. There is one passenger door on this aircraft.

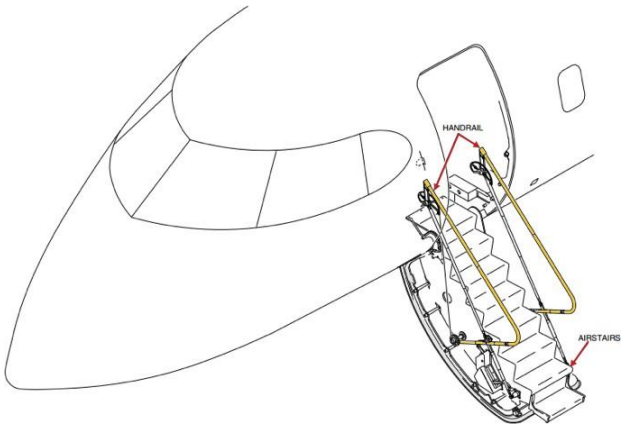
The door is on the left side of the forward fuselage. The door is a plug type door which is attached to airstairs on the inner side. The door and airstairs, which open out and down, turn on two brackets attached to the airstairs and hinge points in the fuselage. Handrails are attached to each side of the airstairs and the fuselage. The handrails extend and retract as the door opens and closes. It is possible to open and close the door from the inner side or outer side of the aircraft. It can also be closed electrically from inside the aircraft.

16.2.2.1 Opening

Open the door from the internal or external side as follows:

A. At the internal side of the door:
   1. Pull the handle up on the forward side of the door.
   2. Push the door out and it will lower automatically.

B. At the external side of the door:
   1. Disengage the door lock assembly to unlock the door.
   2. Push the flap in to get your fingers around the handle.
   3. Pull the handle out and push it up.
   4. Pull out on the handle and the door will lower automatical



Close the door from the internal side as follows:

Operate and hold the door switch for 2 seconds.

Note: The door will lift to the closed position.

Pull the handle down on the forward side of the door to lock it.

Close the door from the internal side as follows:

Note: The procedure that follows is applicable when the actuator motor does not operate, or when electrical power is not available.

Note: The procedure that follows is applicable when the passenger door manual lanyard is available.

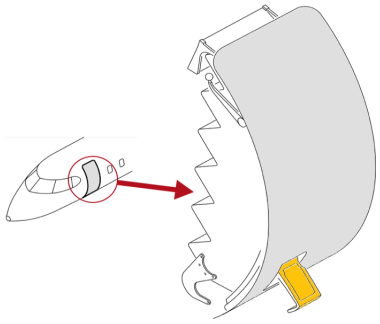
If installed, remove the airstairs mid side-cover (aft) to get access to the manual close pulley.
Wind the passenger door manual lanyard around the manual close pulley in a clockwise direction (as you lookforward).
Put the other end of the passenger door manual lanyard into the aircraft.
Pull the passenger door manual lanyard to rotate the manual close pulley and lift the door into the closed position.

Note: A force of approximately 50lbf (22.68kgf) is necessary to lift the door into the closed position.

Pull the handle down on the forward side of the door to lock it.
Remove the passenger door manual lanyard from the manual close pulley.

Close the door from the external side as follows:

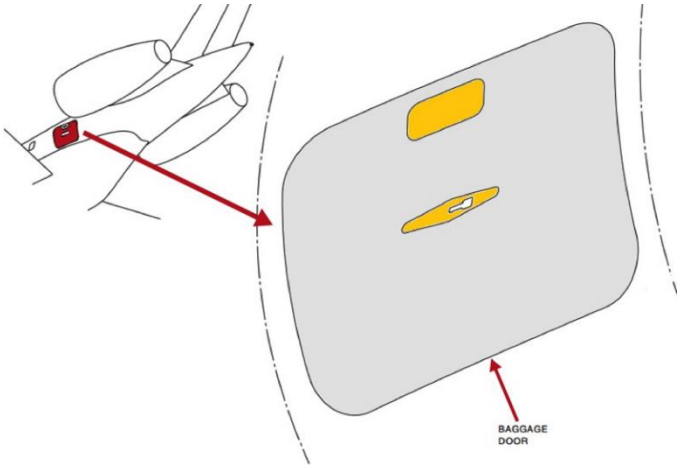
A. Operate and hold the switch found behind the access door until the door lifts to the closed position.
B. Pull the external handle down and push it into the recess to lock the door.
   1) Engage the door lock assembly to lock the door.
C. Close Out
   1) Close the passenger/crew door control panel door.
   2) Remove the electrical power from the aircraft



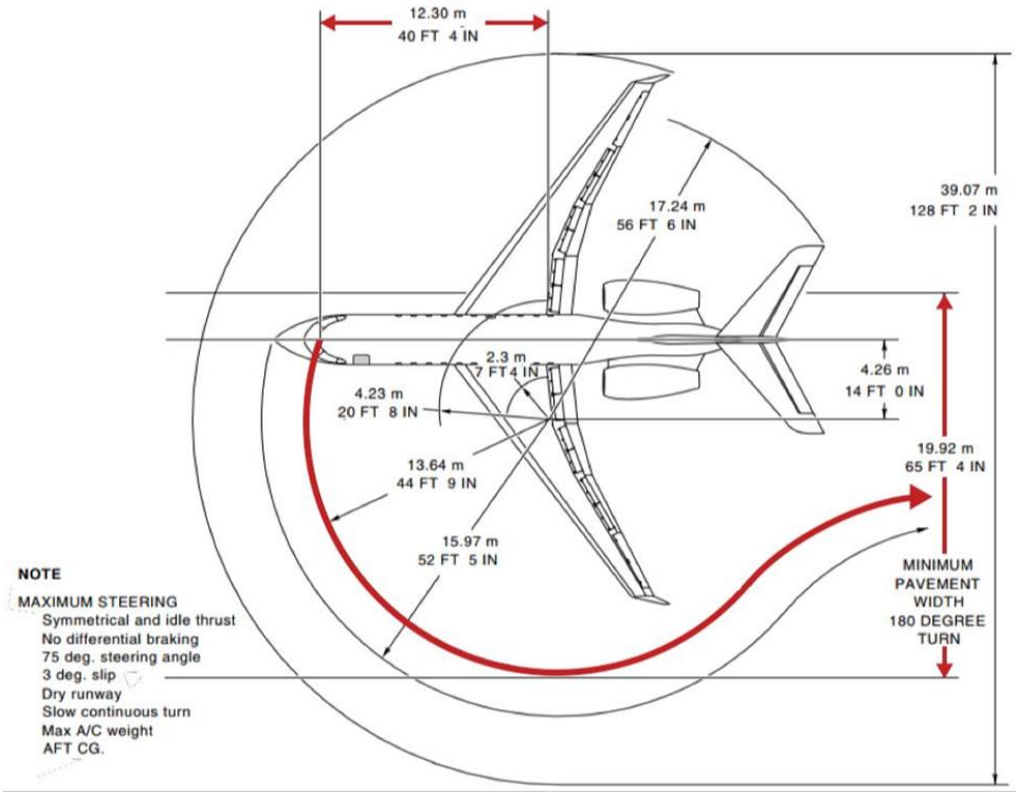
16.2.3 CARGO DOORS

Access to the cargo area is given by the baggage door. The baggage door is found on the left side of the fuselage. The baggage door is found on the left side of the rear fuselage.

It is installed immediately forward of the rear pressure bulkhead. It is a plug type door that opens in and moves up on tracks installed in the cargo area.



16.2.4 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS



16.2.5 NOSE GEAR TOWING PUSHBACK

You can tow or push the aircraft with a towing tractor when it is not possible to move the aircraft with its power. You can tow the aircraft with a tow bar that attaches to the axle of the nose landing gear. A minimum of two persons are necessary to tow the aircraft. Five persons are necessary to tow the aircraft in small areas.

You must taxi the aircraft with a person in the pilot's seat. The person moves the aircraft with the use of the engine power, the brakes and the nose wheel steering.

16.2.5.1 TOWING AIRCRAFT WITH TOWBAR

You can push or tow the aircraft with the towbar connected to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. When you tow the aircraft, you must disconnect the steering torque arms to let the nose wheel turn freely. When you push back the aircraft, you must disconnect the steering torque arms. When you disconnect the steering torque arms, you can turn the nose wheel 360° degrees.

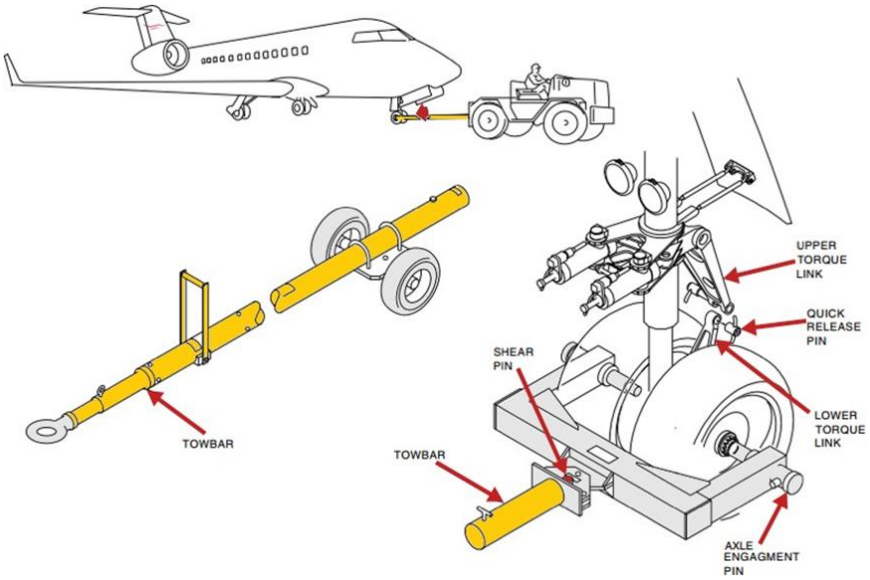
You pull the two quick−disconnect handles to disconnect the torque arms. You connect the towbar to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. The turn angle of the nose wheel must not be more than 70° degrees when you connect the steering torque arms.

The equipment necessary for a towing operation are as follows:

- Tow tractor.
- Main wheel chocks.
- Towbar: standard or collapsible.
- Two headsets with extension cords.

You can tow the aircraft with the standard towbar or with the collapsible tow bar which you find in the aft equipment compartment. The collapsible towbar is a telescopic type that you extend and lock with a pin to prepare the tow bar for use. Both towbar attach to the nose wheel with a tow head that engages with the holes in the ends of the nose wheel axle.

A shear pin installed in the towbar gives the aircraft protection from too much tow force. The shear pin will break if the push or pull force is more than the safe limit.



the nose wheel turn freely. When you push back the aircraft, you must disconnect the steering torque arms. When you disconnect the steering torque arms, you can turn the nose wheel 360° degrees.

You pull the two quick−disconnect handles to disconnect the torque arms. You connect the towbar to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. The turn angle of the nose wheel must not be more than 70° degrees when you connect the steering torque arms.

The equipment necessary for a towing operation are as follows:

- Tow tractor.
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You can tow the aircraft with the standard towbar or with the collapsible tow bar which you find in the aft equipment compartment. The collapsible towbar is a telescopic type that you extend and lock with a pin to prepare the tow bar for use. Both towbar attach to the nose wheel with a tow head that engages with the holes in the ends of the nose wheel axle.

A shear pin installed in the towbar gives the aircraft protection from too much tow force. The shear pin will break if the push or pull force is more than the safe limit.

The minimum number of persons in the crew are as follows:

- When you tow the aircraft in open areas, two persons are necessary.

Note: One person operates the tow vehicle (tug).

- The other person is the brake operator and operates the brakes in the flight compartment when there is an emergency stop.

- If you tow the aircraft in confined areas, five persons are necessary.

Note: One person operates the tug. Two persons, one at each wing end, are positioned to make sure that there is sufficient clearance for the wing ends. One person makes sure that the tail of the aircraft has sufficient clearance. The other person is the brake operator and operates the brakes in the flight compartment when there is an emergency stop.

- Make sure the person who operates the tug can hear, speak to or get signals from the other persons on the crew.

Note: The person who operates the tug controls the tow operation.

- If you tow the aircraft in low visibility, the ground crew must have light wands to give signals.
- Make sure that there is a crew member in the flight compartment to operate the parking brake in an emergency.

Caution: obey the precautions that follow when you tow the aircraft:

- Make sure that the nose-landing-gear shock strut Is correctly filled before you disconnect the torque links.
- Make sure that the torque links of the nose landing gear are disconnected. If the aircraft is pushed back in a straight line, the torque links can stay connected.
- Keep the turns as large as possible. Make only slow changes to speed and/or direction.
- Make sure that the load on the nose landing gear is not less than 1900 lb (862 kg) and that the c of g of the aircraft is within the "c of g" envelope limits. If necessary, make a ballast or fuel adjustment to get the correct load. If you do not do this, you can disconnect or damage the steering mechanism and/or cause the aircraft to tip over.

If you do not obey these precautions, damage to the aircraft and equipment can occur.

Towing Procedures - Towbar

- Install the towbar on the nose gear.
- Engage the axle engagement pins on the towing head with the holes in the ends of the nose gear axle.
- Connect the towbar to the towing vehicle.
- In the flight compartment, do the steps that follow:

1. Release the parking brake.
2. Signal the tug operator that the parking brake is released.

- Remove all the wheel chocks.
- Signal the tug operator that the wheel chocks are out.
- Close the passenger door, as applicable.

Note: Towing the aircraft with the main cabin door open or removed is permitted, but you must obey the speed limit and make sure that you do not have sudden stops and starts.

- Slowly tow the aircraft forward at a speed of not more than 5 mph (8 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes. Note: Do not stop the aircraft in a turn if it is not necessary.

- If necessary, push back the aircraft at a speed of not more than 3 mph (5 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes. Note: Do not stop the aircraft in a turn if it is not necessary.

- If the aircraft is turned before it is parked, move it forward or rearward in a straight line for a short distance.

Note: This is necessary to remove twist forces from the landing gear before you stop the aircraft.

- When the aircraft is in the correct position, stop the aircraft with the tug.

Make sure the wheel chocks are put at the nose and main wheel/tire assemblies. movement of the aircraft can cause injury to persons and damage to the equipment.

- Put the wheel chocks forward and aft of both the NLG and the MLG wheel assemblies.
- Signal the tug operator that the wheel chocks are in.
- In the flight compartment, do the steps that follow:

1. Set the parking brake as necessary.
2. Signal the tug operator that the parking brake is set

- Disconnect the towbar from the towing vehicle.
- Connect the torque links as follows:

1. Pull and hold the two quick−disconnect handles fully out.
2. Align the pivot of the top torque link with the pivot of the lower torque link.
3. Release the quick−disconnect handles.
4. Make sure that the two quick−disconnect pins engage fully with the pivot of the lower torque link.

- Disconnect the towbar from the nose landing gear.

Towing Procedures - Towbar less

Stay away from the torque link when you release the handle. The torque link is spring-loaded and will move up quickly when you pull the release handle. If you do not obey this safety precaution, you can cause injury to persons.

Note: When the torque links are disconnected, there is no limitation on the turn angle.
Note: Before you disconnect the steering torque links, measure the length of chrome that shows on the nose-wheel strut. The chrome that shows should be a minimum of 7.6 cm (3 in) and a maximum of 30.4 cm (12 in).

The nose wheel shock strut must be compressed sufficiently to ensure that the wheel centering cams remain disengaged during ground manoeuvres. if the shock strut is under serviced or bounces at large castor angles, damage may occur to the steering centering cams or shock strut internal.

- Disconnect the torque links as follows:

1. Pull the two quick−disconnect handles at the same time.
2. Disconnect the top torque link from the lower torque link.

- Connect a headset to the service interphone unit.
- In the flight compartment, perform following steps:

1. Set the parking brake.
2. Tell the tug operator that the parking brake is set.

- Remove all the wheel chocks.
- Visually examine the winch strap for possible damage and replace it if necessary.

Note: Replace the winch strap for a new one when it shows evidence of excessive wear. Note: Replace the winch strap as per the manufacturer's operator manual recommendation.

- Visually examine the strut strap and its protective sleeve for possible damage and clean it if necessary.

Note: Replace the strut strap as per the manufacturer's operator manual recommendation. Replace the strut strap any time it shows evidence of excessive wear. Examine the protective sleeve on the strut strap. Make sure it is free from grease, dirt

or grit that can cause damage to the piston chrome surface. Sheepskin or braided nylon protective sleeve worn through or abrasive materials can cause damage to the piston chrome surface.

If you move the tug to and from the nose wheels from the rear, make sure you and the vehicle will not touch aircraft components. If you do not obey this precaution, you can cause injury to yourself and damage to aircraft and components.

- Move the tug to 3ft. (1m) or less from the aircraft wheels. Make sure that the tug is in line with the nose wheels.

- Stop the tug and lower the nose wheel cradle to 1in (2.54cm) above the ground.

Do not put the strut strap around the outer cylinder when you tow or push back the aircraft with a towbarless vehicle. You can cause damage to the nose landing gear.

- Put the strut strap around the chrome piston of the NLG strut. If part of the strut strap is not on the piston, make sure that the shock strut has been serviced correctly.
- Attach the winch strap to the “D” rings of the strut strap.

Note: Make sure that the strut strap is the correct length as follows:
- The “D” rings and the winch strap hook do not come in contact with the winch drum
- The “D” rings and the winch strap hook do not come in contact with the nose−landing−gear.

- In the flight compartment, do the steps that follow:

1. Release the parking brake.
2. Tell the tug operator that the parking brake is released.

- Pull the aircraft on the cradle with the winch until the tire operates the winch cut−off and is tightly held against the
stop.
- Make sure that the protruding parts on the nose landing gear stay clear of the cradle and the tug body.
- Lift the cradle sufficiently until it is approximately 3in (7.62cm) above the pavement surface.

Note: The pavement surface must be free from obstacles.
Note: Towing on an irregular surface of more than 1in (2.54cm), including hangar entrance is not permitted.

- Make sure that the winch/strut strap tension is tight but allow approximately 0.50in (1.27cm) of downward movement of the strap when it is manually pushed.
- Close the passenger door, as applicable.

Note: Towing the aircraft with the passenger door open or removed is permitted, but you must obey the speed limit and make sure that you do not have sudden stops and starts.

- Slowly tow the aircraft forward at a speed of not more than 5 mph (8 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes.
Note: You must stop the towing operation immediately if the aircraft nose-wheel-assembly position is different from the cradle position. This can show that a torque force is transmitted to the steering system. If this condition occurs, you must examine the NLG tires and NLG wheels as well as the steering system. Monitor the tire chine and the wheel bead.
Note: Do not stop the aircraft in a turn if it is not necessary.

- If necessary, push back the aircraft at a speed of not more than 3mph (5km/h).

Note: Control the towing speed using only the tug, not the aircraft brakes.

Note: You must stop the towing operation immediately if the aircraft nose-wheel-assembly position is different from the cradle position. This can show that a torque force is transmitted to the steering system. If this condition occurs, you must examine the NLG tires and NLG wheels as well as the steering system. Monitor the tire chine and the wheel bead.
Note: Do not stop the aircraft in a turn if it is not necessary.

- If the aircraft is turned before it is parked, move it forward or rearward in a straight line for a short distance.
- When the aircraft is in the correct position, stop the aircraft with the tug.
- Lower the cradle.
- In the flight compartment, do the steps that follow:

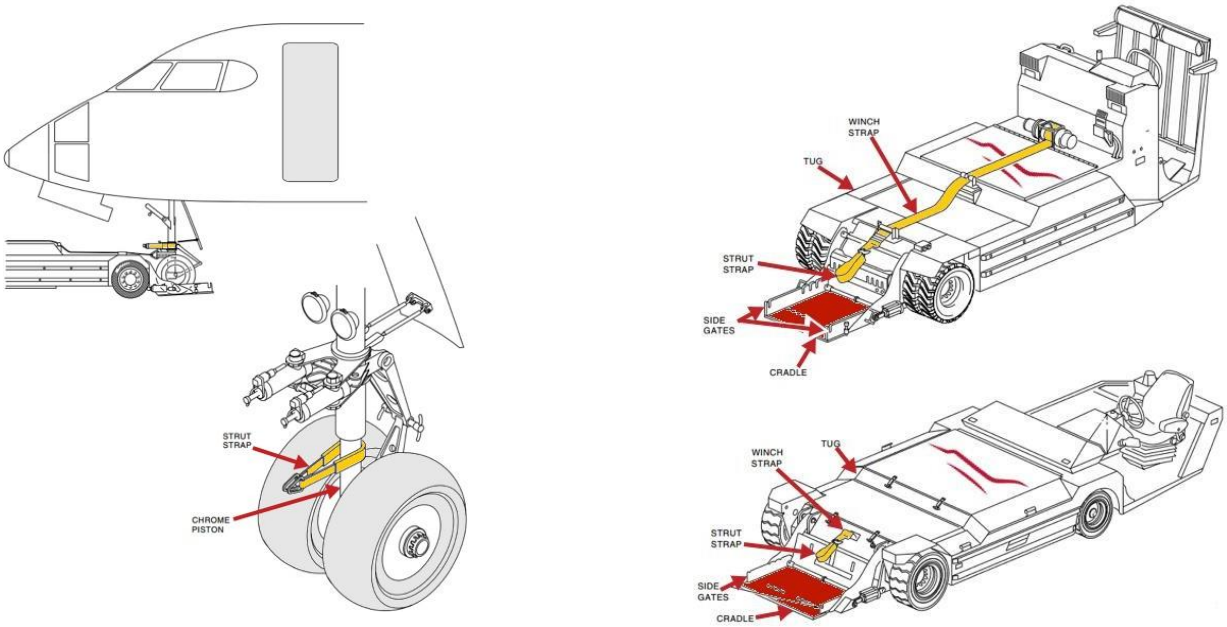
1. Set the parking brake.
2. Tell the tug operator that the parking brake is set.

- Put the wheel chocks forward and aft of the MLG wheel assemblies.
- Disconnect the winch strap from the NLG strut.
- Slowly move the tug away from the aircraft.

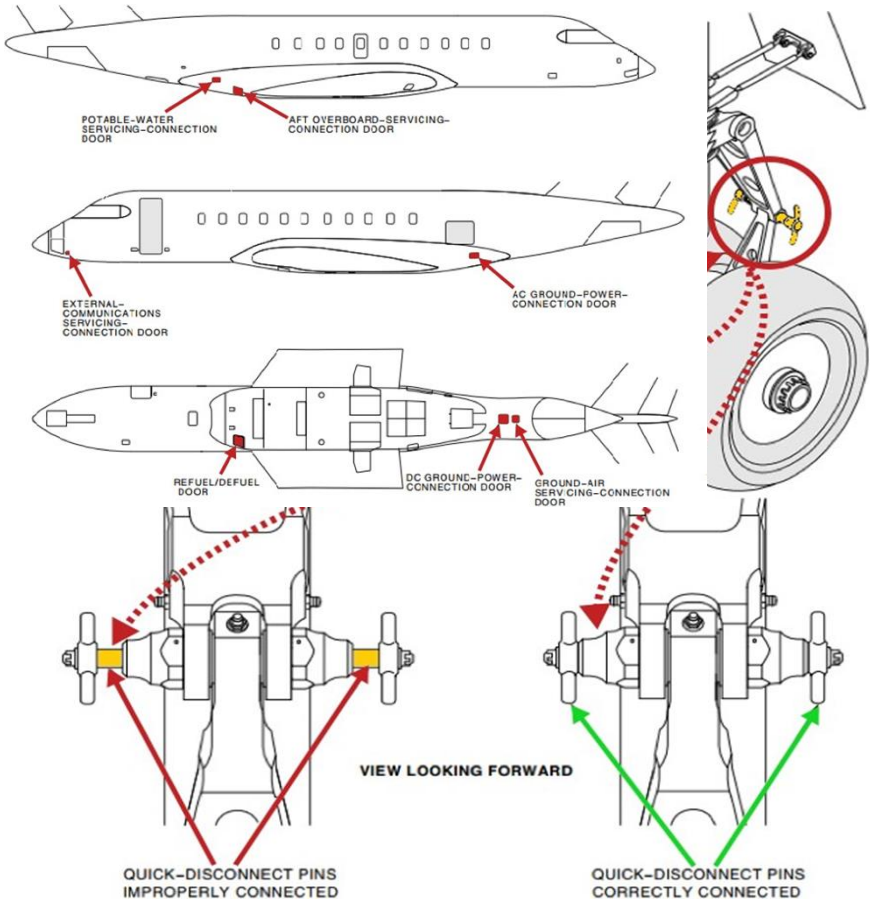
Make sure the wheel chocks are put at the nose and main wheel/tire assemblies. Movement of the aircraft can cause injury to persons and damage to the equipment.

- Put the wheel chocks forward and aft of the NLG wheel assembly.
- Install the ground wire.
- Release the parking brake as necessary.
- Connect the torque links as follows:

1. Pull out and hold the two quick−disconnect handles.
2. Align the pivot of the top torque link with the pivot of the lower torque link.
3. Release the quick−disconnect handles.
4. Make sure that the two quick−disconnect pins engage fully with the pivot of the lower torque link.



16.2.6 **SERVICE CONNECTIONS**



16.2.7 DOORS & CABIN & INTERIOR DIMENSIONS

The cabin offers 15 seats with adjustable backrests, folding armrest and a large folding executive table in the centre.

Cabin Door, External Opening & Closing:

The passenger/crew door is the usual entrance and exit point for the passengers and crew. There is one passenger door on this aircraft.

The door is on the left side of the forward fuselage. The door is a plug type door which is attached to airstairs on the inner side. The door and airstairs, which open out and down, turn on two brackets attached to the airstairs and hinge points in the fuselage. Handrails are attached to each side of the airstairs and the fuselage. The handrails extend and retract as the door opens and closes. It is possible to open and close the door from the inner side or outer side of the aircraft. It can also be closed electrically from inside the aircraft.

Opening

Open the door from the internal or external side as follows:

A. At the internal side of the door:
1. Pull the handle up on the forward side of the door.
2. Push the door out and it will lower automatically.
B. At the external side of the door:
1. Disengage the door lock assembly to unlock the door.
2. Push the flap in to get your fingers around the handle.
3. Pull the handle out and push it up.
4. Pull out on the handle and the door will lower automatically

Closing
Close the door from the internal side as follows:

A. Operate and hold the door switch for 2 seconds.
Note: The door will lift to the closed position.
B. Pull the handle down on the forward side of the door to lock it.

Close the door from the internal side as follows:

Note: The procedure that follows is applicable when the actuator motor does not operate, or when electrical power is not available.

Note: The procedure that follows is applicable when the passenger door manual lanyard is available.

A. If installed, remove the airstairs mid side-cover (aft) to get access to the manual close pulley.
B. Wind the passenger door manual lanyard around the manual close pulley in a clockwise direction (as you look forward).
C. Put the other end of the passenger door manual lanyard into the aircraft.
D. Pull the passenger door manual lanyard to rotate the manual close pulley and lift the door into the closed position.

Note: A force of approximately 50lbf (22.68kgf) is necessary to lift the door into the closed position.

E. Pull the handle down on the forward side of the door to lock it.
F. Remove the passenger door manual lanyard from the manual close pulley.

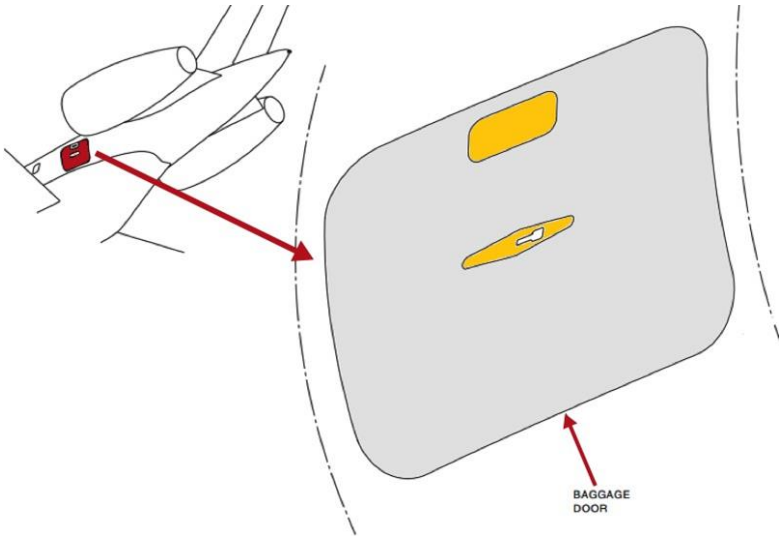
Close the door from the external side as follows:

A. Operate and hold the switch found behind the access door until the door lifts to the closed position.
B. Pull the external handle down and push it into the recess to lock the door.
1) Engage the door lock assembly to lock the door.
C. Close Out
1) Close the passenger/crew door control panel door.
2) Remove the electrical power from the aircraft.

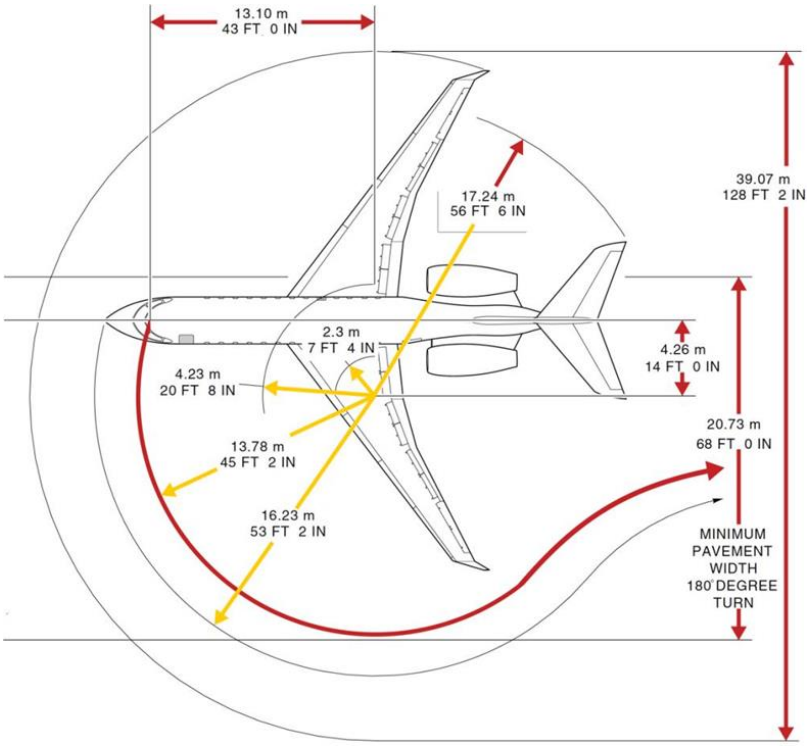
16.2.7.1 CARGO DOORS

Access to the cargo area is given by the baggage door. The baggage door is found on the left side of the fuselage. The baggage door is found on the left side of the rear fuselage.

It is installed immediately forward of the rear pressure bulkhead. It is a plug type door that opens in and moves up on tracks installed in the cargo area.

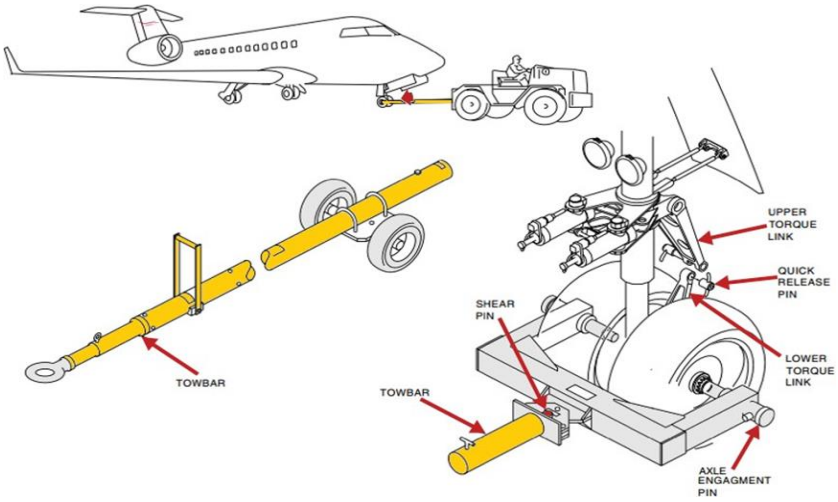


16.2.8 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS



16.2.9 NOSE GEAR TOWING PUSHBACK

You can tow or push the aircraft with a towing tractor when it is not possible to move the aircraft with its power. You can tow the aircraft with a tow bar that attaches to the axle of the nose landing gear. A minimum of two persons are necessary



to tow the aircraft. Five persons are necessary to tow the aircraft in small areas.

You must taxi the aircraft with a person in the pilot's seat. The person moves the aircraft with the use of the engine power, the brakes and the nose wheel steering.

16.2.9.1 TOWING AIRCRAFT WITH TOWBAR

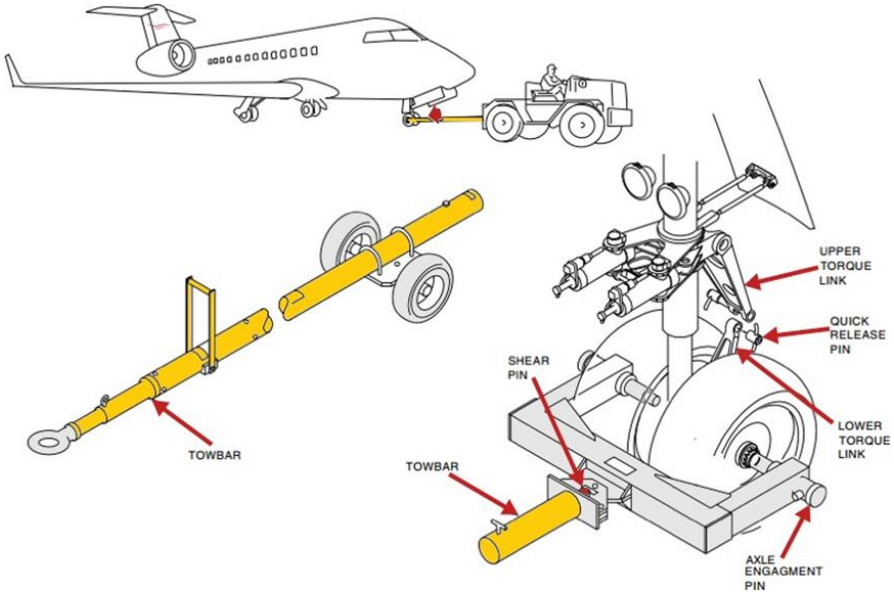
You can push or tow the aircraft with the towbar connected to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. When you tow the aircraft, you must disconnect the steering torque arms to let

the nose wheel turn freely. When you push back the aircraft, you must disconnect the steering torque arms. When you disconnect the steering torque arms, you can turn the nose wheel 360° degrees.

You pull the two quick−disconnect handles to disconnect the torque arms. You connect the towbar to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. The turn angle of the nose wheel must not be more than 70° degrees when you connect the steering torque arms.

The equipment necessary for a towing operation are as follows:

- Tow tractor.
- Main wheel chocks.
- Towbar: standard or collapsible.
- Two headsets with extension cords.



You can tow the aircraft with the standard towbar or with the collapsible tow bar which you find in the aft equipment compartment. The collapsible towbar is a telescopic type that you extend and lock with a pin to prepare the tow bar for use. Both towbar attach to the nose wheel with a tow head that engages with the holes in the ends of the nose wheel axle.

A shear pin installed in the towbar gives the aircraft protection from too much tow force. The shear pin will break if the push or pull force is more than the safe limit.
The minimum number of persons in the crew are as follows:

- When you tow the aircraft in open areas, two persons are necessary.

Note: One person operates the tow vehicle (tug).

- The other person is the brake operator and operates the brakes in the flight compartment when there is an emergency stop.

- If you tow the aircraft in confined areas, five persons are necessary.

Note: One person operates the tug. Two persons, one at each wing end, are positioned to make sure that there is sufficient clearance for the wing ends. One person makes sure that the tail of the aircraft has sufficient clearance. The other person is the brake operator and operates the brakes in the flight compartment when there is an emergency stop.

- Make sure the person who operates the tug can hear, speak to or get signals from the other persons on the crew.

Note: The person who operates the tug controls the tow operation.

- If you tow the aircraft in low visibility, the ground crew must have light wands to give signals.
- Make sure that there is a crew member in the flight compartment to operate the parking brake in an emergency.

Caution: obey the precautions that follow when you tow the aircraft:

- **Make sure that the nose-landing-gear shock strut Is correctly filled before you disconnect the torque links.**
- **Make sure that the torque links of the nose landing gear are disconnected. If the aircraft is pushed back in a straight line, the torque links can stay connected.**
- **Keep the turns as large as possible. Make only slow changes to speed and/or direction.**
- **Make sure that the load on the nose landing gear is not less than 1900 lb (862 kg) and that the c of g of the aircraft is within the "c of g" envelope limits. If necessary, make a ballast or fuel adjustment to get the correct load. If you do not do this, you can disconnect or damage the steering mechanism and/or cause the aircraft to tip over.**

If you do not obey these precautions, damage to the aircraft and equipment can occur.

Towing Procedures - Towbar

- Install the towbar on the nose gear.
- Engage the axle engagement pins on the towing head with the holes in the ends of the nose gear axle.
- Connect the towbar to the towing vehicle.
- In the flight compartment, do the steps that follow:

1. Release the parking brake.
2. Signal the tug operator that the parking brake is released.

- Remove all the wheel chocks.
- Signal the tug operator that the wheel chocks are out.
- Close the passenger door, as applicable.

Note: Towing the aircraft with the main cabin door open or removed is permitted, but you must obey the speed limit and make sure that you do not have sudden stops and starts.

- Slowly tow the aircraft forward at a speed of not more than 5 mph (8 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes. Note: Do not stop the aircraft in a turn if it is not necessary.

- If necessary, push back the aircraft at a speed of not more than 3 mph (5 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes. Note: Do not stop the aircraft in a turn if it is not necessary.

- If the aircraft is turned before it is parked, move it forward or rearward in a straight line for a short distance.

Note: This is necessary to remove twist forces from the landing gear before you stop the aircraft

	**Make sure the wheel chocks are put at the nose and main wheel/tire assemblies. movement of the aircraft can cause injury to persons and damage to the equipment.**

- Put the wheel chocks forward and aft of both the NLG and the MLG wheel assemblies.
- Signal the tug operator that the wheel chocks are in.
- In the flight compartment, do the steps that follow:
  1. Set the parking brake as necessary.
  2. Signal the tug operator that the parking brake is set
- Disconnect the towbar from the towing vehicle.
- Connect the torque links as follows:
  1. Pull and hold the two quick−disconnect handles fully out.
  2. Align the pivot of the top torque link with the pivot of the lower torque link.
  3. Release the quick−disconnect handles.
  4. Make sure that the two quick−disconnect pins engage fully with the pivot of the lower torque link.
- Disconnect the towbar from the nose landing gear.

Towing Procedures - Towbarless

	**Stay away from the torque link when you release the handle. The torque link is spring-loaded and will move up quickly when you pull the release handle. If you do not obey this safety precaution, you can cause injury to persons.**

Note: When the torque links are disconnected, there is no limitation on the turn angle.
Note: Before you disconnect the steering torque links, measure the length of chrome that shows on the nose-wheel strut.The chrome that shows should be a minimum of 7.6 cm (3 in) and a maximum of 30.4 cm (12 in).

	**The nose wheel shock strut must be compressed sufficiently to ensure that the wheel centering cams remain disengaged during ground manoeuvres. if the shock strut is under serviced or bounces at large castor angles, damage may occur to the steering centering cams or shock strut internal.**

- Disconnect the torque links as follows:
  1. Pull the two quick−disconnect handles at the same time.
  2. Disconnect the top torque link from the lower torque link.
- Connect a headset to the service interphone unit.
- In the flight compartment, perform following steps:
  1. Set the parking brake.
  2. Tell the tug operator that the parking brake is set.
- Remove all the wheel chocks.
- Visually examine the winch strap for possible damage and replace it if necessary.

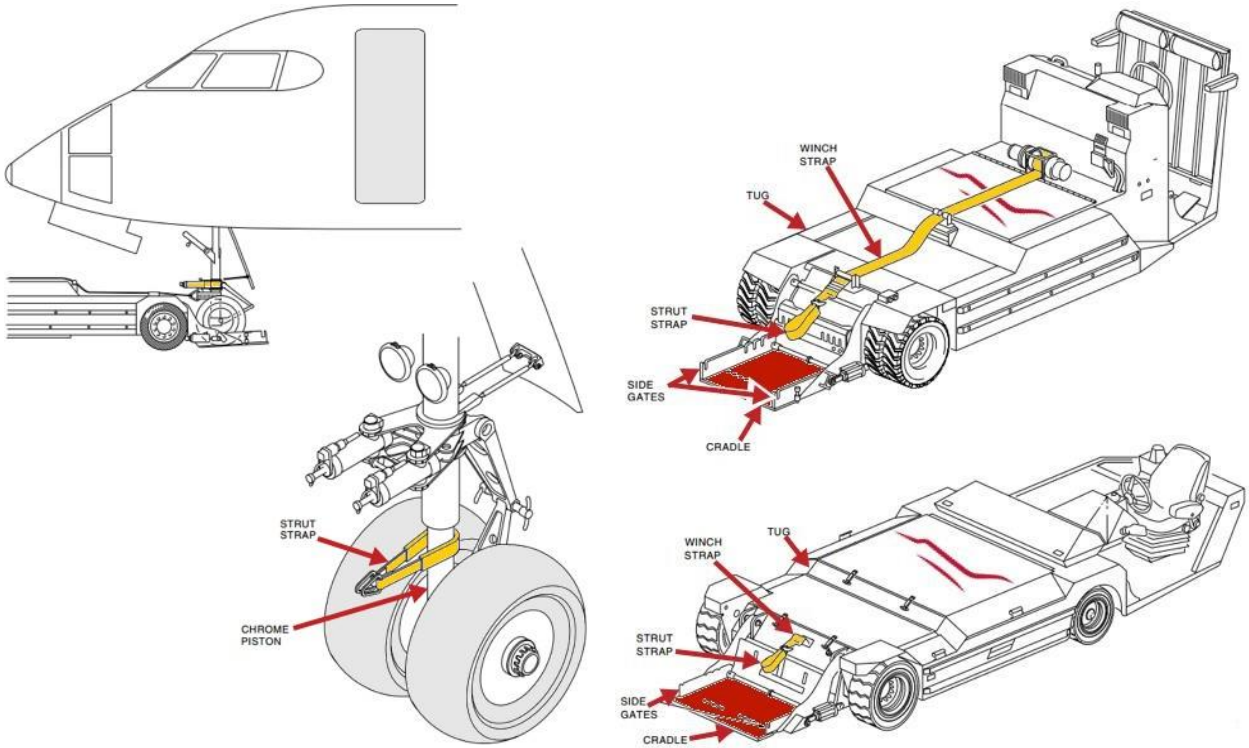
Note: Replace the winch strap for a new one when it shows evidence of excessive wear. Note: Replace the winch strap as per the manufacturer's operator manual recommendation.

- Visually examine the strut strap and its protective sleeve for possible damage and clean it if necessary.

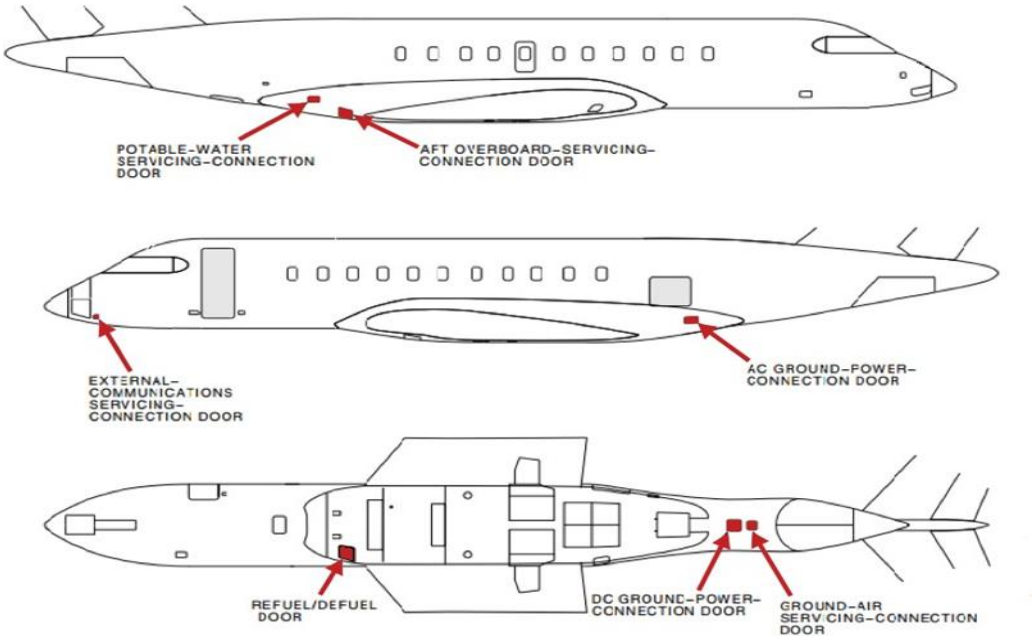
Note: Replace the strut strap as per the manufacturer's operator manual recommendation. Replace the strut strap any time it shows evidence of excessive wear. Examine the protective sleeve on the strut strap. Make sure it is free from grease, dirt or grit that can cause damage to the piston chrome surface. Sheepskin or braided nylon protective sleeve worn through or abrasive materials can cause damage to the piston chrome surface.

WARNING	**If you move the tug to and from the nose wheels from the rear, make sure you and the vehicle will not touch aircraft components. If you do not obey this precaution, you can cause injury to yourself and damage to aircraft and components.**

- Move the tug to 3ft. (1m) or less from the aircraft wheels. Make sure that the tug is in line with the nose wheels.



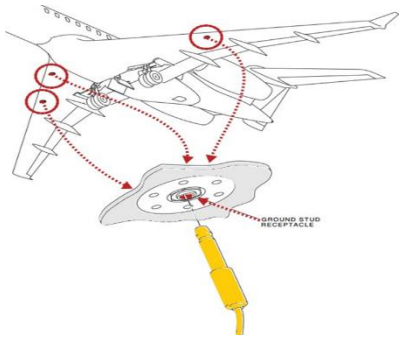
16.2.10 SERVICE CONNECTIONS



16.2.11 REFUELLING - SERVICING

16.2.11.1 AIRCRAFT GROUNDING/BONDING - ELECTROSTATIC LINK

Put the ground cable connector in the nearest ground cable receptacle on the wing leading edge as shown in the illustration.



16.2.11.2 PRESSURE REFUELLING

- Obey all fuel-system safety precautions.
- Move the wheel chocks approximately 6.0in (152.4mm) forward and aft of the tires (main landing gear and noselanding gear).

Note: You need to do this to easily remove the wheel chocks. It is possible for the tires to expand from the weight of the fuel.

WARNING	**Remove all persons, materials, and equipment from below the aircraft before you do the refuel procedure. The weight of the fuel added will compress the landing gear and lower the aircraft. This can cause injury to persons and damage to the equipment.**

- Make sure that you remove all personnel and equipment from below the aircraft.
- Make sure that the aircraft is on level ground.

Note: If the aircraft is not level, it will result in uneven fuel loads. This can cause fuel to come out of the NACA scoop.

- Make sure that the fuel tender and the aircraft are correctly grounded.
- Connect the electrical power to the aircraft.

Note: During refuelling procedures, do not change sources of power used (APU to battery, battery to aircraft electrical system, etc.

- In the AUTO Refuel Mode, make sure the throttle quadrant L Engine and R Engine switches are set to OFF.
- Open the REFUEL/DEFUEL PANEL access door.
- Make sure the fuel system conditions that follow are obeyed before you begin the refuel procedures:

Note: During refuelling procedures, do not change sources of power used (APU to battery, battery to aircraft electrical system, etc.).

- Make sure that the switches on the REFUEL/DEFUEL PANEL are set as follows:

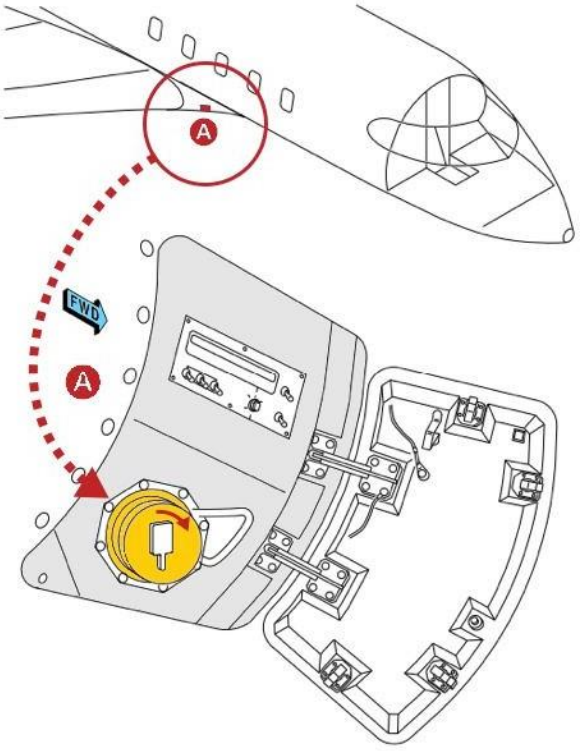
DESIGNATION	POSITION
MANUAL/AUTO	OFF
START/STOP/SOV TEST	Center
MANUAL LEFT	CLOSE
MANUAL CENTER	CLOSE
MANUAL RIGHT	CLOSE

Note: You can set the two MANUAL/AUTO rotary switches (on the external and flight compartment REFUEL/DEFUEL PANEL) out of the OFF position. The MANUAL/AUTO rotary switch which is first set out of OFF position will control the refuel/defuel system. If the first MANUAL/AUTO rotary switch is set to OFF, the second MANUAL rotary switch will then control the refuel/defuel system.

WARNING	**Warning: make sure that the fuel tender, the aircraft, and the fuel nozzle are grounded before you refuel/defuel the aircraft. A static electrical spark during the procedure can cause an explosion or fire.**

- Connect the fuel tender to the aircraftas follows:

1. Remove the cap from the refuel/defuel adapter.
2. Connect the fuel nozzle ground to the aircraft grou
3. Connect the fuel nozzle to the refuel/defuel adapt
4. Set the fuel pressure on the fuel tender to no more



WARNING	**When you refuel the aircraft (pressure or gravity), obey the instructions that follow:** • **during the refuelling procedure, the "fuel imbalance" caution message may display when the weight difference between the left and right-wing fuel tanks is more than 600 lbs (272.16 kg) to 1100 lbs (498.95 kg) depending of the wing tanks total fuel quantity.** • **when you complete the refuelling procedure, make sure the weight difference between the left and right-wing fuel tanks is not more than 200 lbs (90.72 kg).** **If the weight difference is more than the limit, the aircraft can move and cause injury to persons and damage to the equipment.**

.

- Refuel the aircraft as follows:
  1. Set the MANUAL/AUTO switch as follows:

Note: When the MANUAL/AUTO switch is set to a REFUEL position, a BITE test starts. The BITE test is completed whenthe fuel quantities for each tank show in the display.

  2. To refuel the wing and centre fuel tanks, set the switch to AUTO/REFUEL.

Note: If the refuel mode is changed and one of the R/D SOV switches is set to OPEN, the RDCP will show INHIB until allSOV switches are set to CLOSED. Refuelling or defueling can be started by setting the SOV OPEN, as necessary.

- Make sure that a fuel quantity shows in the display for each tank and in the TOTAL display. The fuel quantity inthe TOTAL and PRESEL displays must be the same.
- Use the INCR/DECR switch to set the quantity of fuel in the PRESEL display.
- Set the START/STOP/SOV TEST switch to START.

Note: The START message shows in PRESEL window and alternates with the preselected quantity.

- Make sure that the fuel quantity increases on the display while you add fuel.

When the pressure refuelling procedure is completed, do the steps that follow:

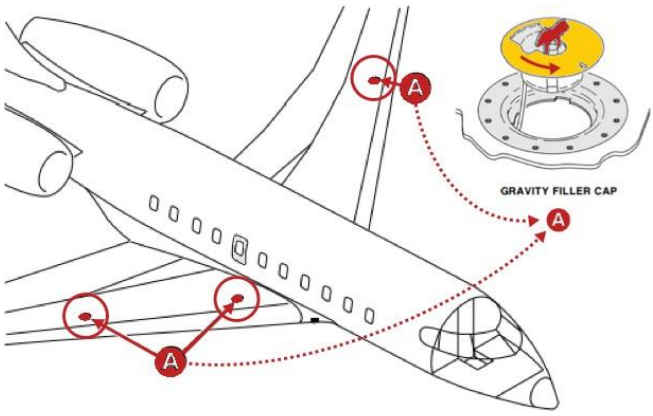
Note: The pressure refuelling procedure is completed when the quantity in the TOTAL and the PRESEL displays are equal. The COMPLETE message shows in PRESEL window and alternates with the preselected quantity after all related valvesclose at the end of the auto refuel.

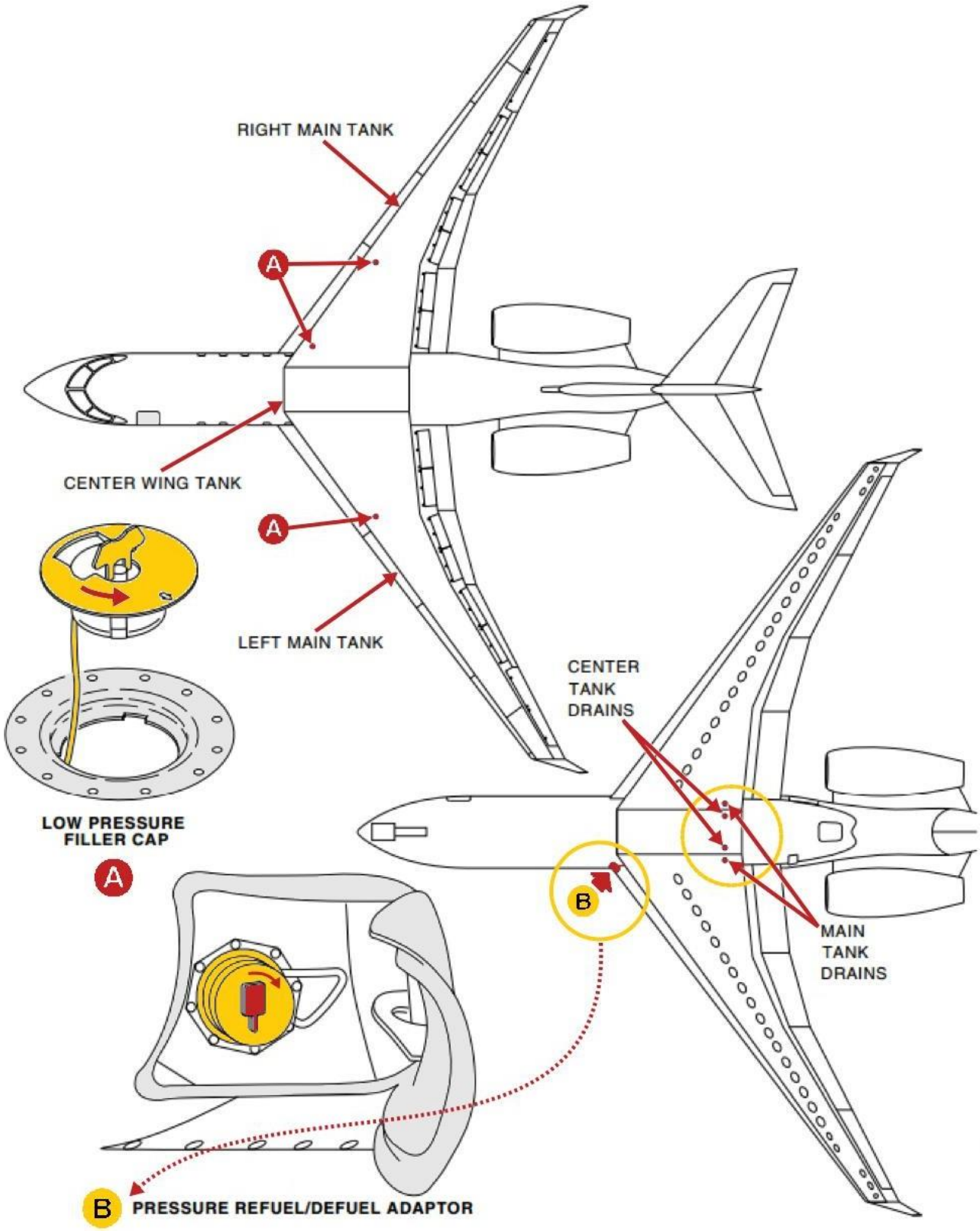
- Set the MANUAL/AUTO switch to the OFF position.
- Disconnect the fuel tender from the aircraft as follows:
- Set the fuel pressure on the fuel tender to 0psig (0kPa).
- Disconnect the fuel nozzle from the refuel/defuel adapter.
- Disconnect the fuel nozzle ground from the aircraft grounding p
- Install the cap on the refuel/defuel adapter

16.2.11.3 GRAVITY REFUELLING

Specific instruction exists for gravity refuelling which should be obtainedthrough the FLYINGGROUP FlightCrew.

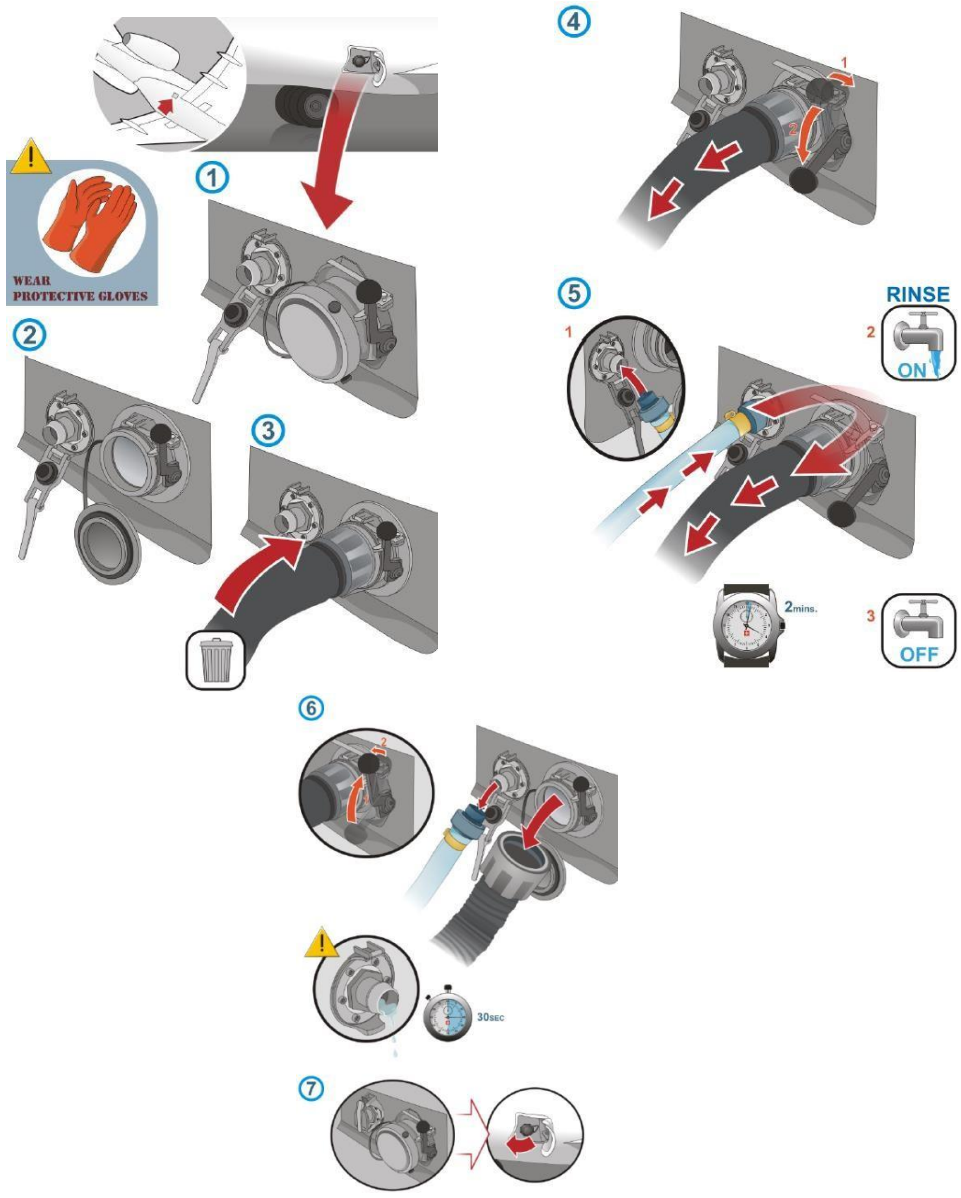
Gravity refuelling access points arelocated on the wing of the aircraft and closed by gravity filler caps as shown in the illustration.




RIGHT MAIN TANK
A
CENTER WING TANK
A
LEFT MAIN TANK
CENTER
TANK
DRAINS
LOW PRESSURE
FILLER CAP
A
B
MAIN
TANK
DRAINS
B
PRESSURE REFUEL/DEFUEL ADAPTOR

16.2.12 WASTE SYSTEM SERVICING

The Bombardier Global 5000 is equipped with a waste servicing station, located at the right-hand lower fuselage side,under the right-hand engine. Servicing instructions are provided as follows:



CAUTION	**After servicing all GSP/FBO staff in charge of performing waste service on the Bombardier Global 5000 aircraft must only use clear tap water to rinse the lavatory waste tank, as only clear tap water isallowed for use by Bombardier. Lavatory waste tank rinsing must last at least for 2 minutes.**

16.2.13 EXTERNAL POWER - GPU - CONNECTION

The Bombardier Global 5000 is equipped with a GPU connection receptacle which is used to connect GPU's (GroundPower Units, 115/208VAC, 3 Phase, 400HZ, 75KVA and 28VDC).

WARNING	**Warn all persons on the aircraft before you energize the electrical systems. If this is not done, it can cause injuries to persons and/or damage to equipment.**

Connecting

Connect and energize the external ac power as follows:

- Connect the ac connector of the ground power unit to the aircraft's external-power receptacle at the aft electrical service control-panel.
- Operate the ground power unit to apply ac ground power to the aircraft and set the voltage to 115 Vac.
- On the aft service control-panel, make sure the EXT AC AVAIL light comes on.

For ground service mode (limited loads), do the steps that follow:

- On the aft service control-panel, push one time the GROUND SERVICE switch to set it to ON.
- Make sure the GROUND SERVICE ON light comes on.
- Make sure the EXT AC AVAIL light goes off.
- Make sure the EXT AC IN USE light comes on.

Disconnecting

After ground service (ground service mode), do the steps that follow:

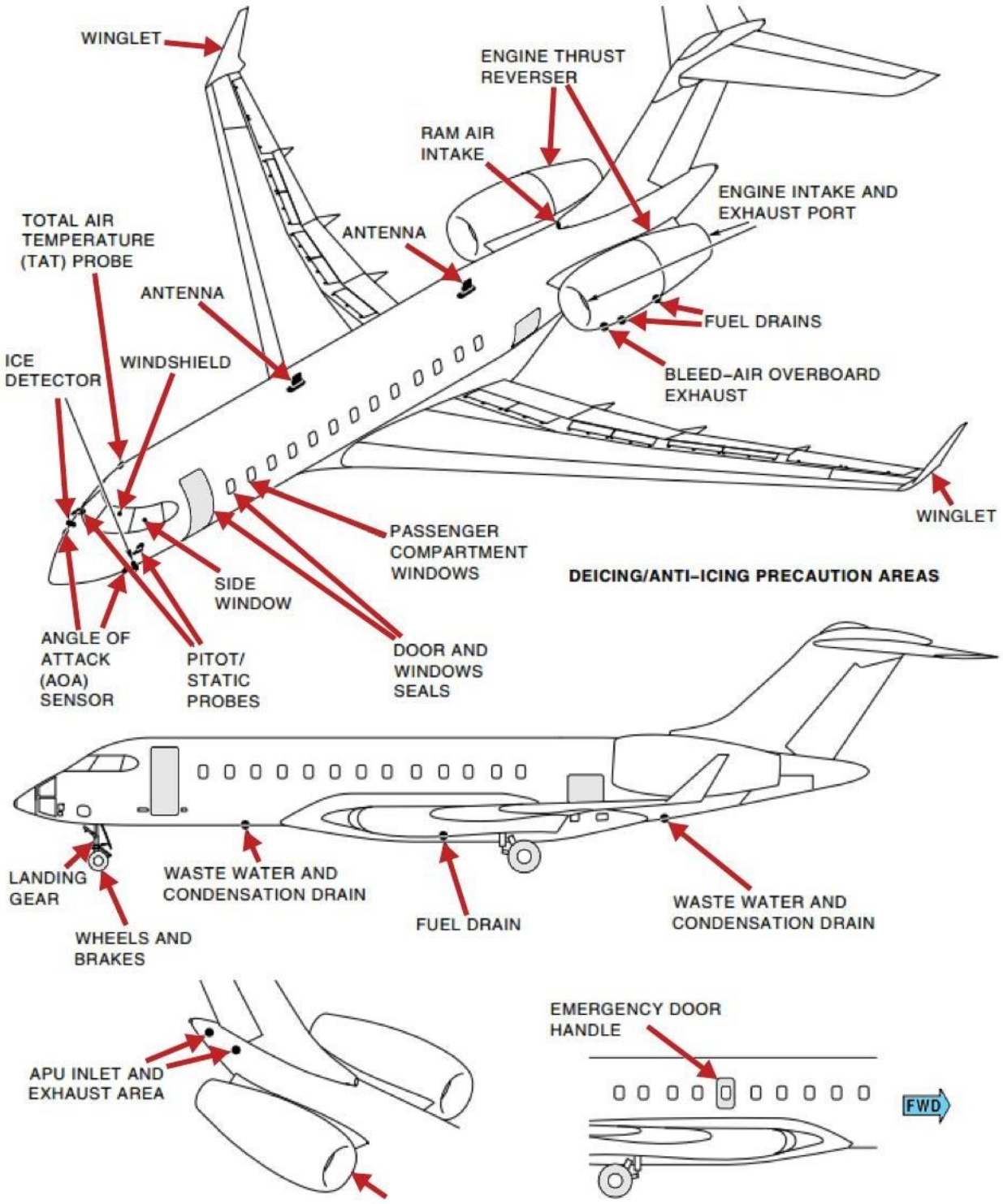
a) On the aft service control-panel, push one time the GROUND SERVICE switch to set it to off.
b) Make sure the GROUND SERVICE ON light goes off.
c) Make sure the EXT AC AVAIL light comes on.
d) Make sure the EXT AC IN USE light goes off.

- Operate the ground power unit to stop the supply of external ac power.
- On the aft service control-panel, make sure the EXT AC AVAIL light goes off.
- Disconnect the ac connector of the ground power unit from the aircraft external-power receptacle.
- Close the access door.

16.2.14 DE-ICING/ANTI-ICING - SPRAY/NO-SPRAY ZONES

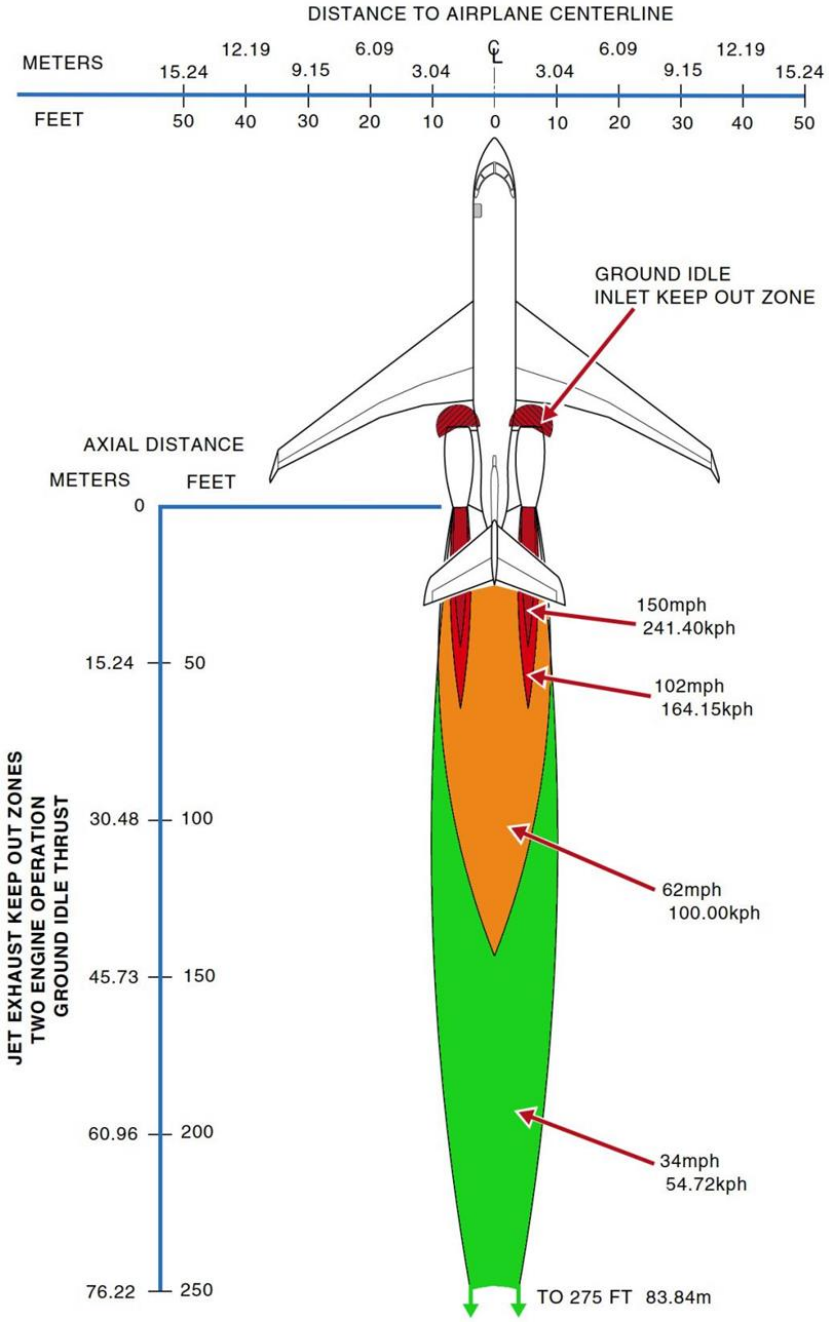
The first area to be De/Anti-Iced should be visible from the cabin/cockpit and should be used to provide a conservative estimate for unseen areas of the airplane before departure/take-off.

Refer also to generic information on De/Anti-Icing no spray zones in "GOM/A 8.4" The illustration shown is a Bombardier Global 6000, but also applies to Bombardier Global 5000 aircraft.

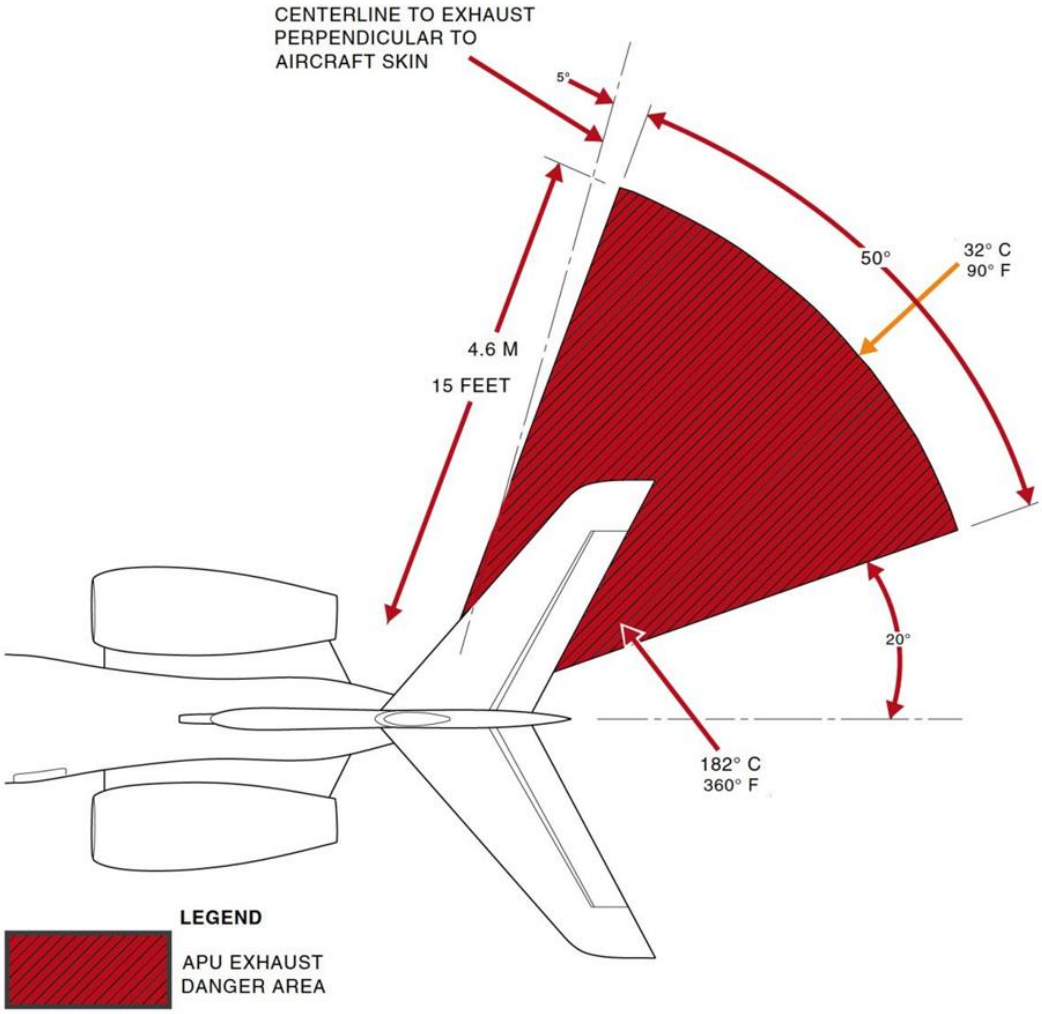

WINGLET
ENGINE THRUST REVERSER
RAM AIR INTAKE
ENGINE INTAKE AND EXHAUST PORT
TOTAL AIR TEMPERATURE (TAT) PROBE
ANTENNA
ANTENNA
FUEL DRAINS
ICE DETECTOR
WINDSHIELD
BLEED–AIR OVERBOARD EXHAUST
WINGLET
PASSENGER COMPARTMENT WINDOWS
DEICING/ANTI–ICING PRECAUTION AREAS
SIDE WINDOW
ANGLE OF ATTACK (AOA) SENSOR
PITOT/ STATIC PROBES
DOOR AND WINDOWS SEALS
LANDING GEAR
WASTE WATER AND CONDENSATION DRAIN
FUEL DRAIN
WASTE WATER AND CONDENSATION DRAIN
WHEELS AND BRAKES
APU INLET AND EXHAUST AREA
EMERGENCY DOOR HANDLE
FWD

16.2.15 ENGINE CLEAR – BLAST AREAS

16.2.15.1 ENGINES IDLE THRUST - BLAST AREAS



16.2.15.2 APU - BLAST AREAS



16.2.16 AIRCRAFT PARKING

When the aircraft is parked, or put in storage, some precautions are necessary to prevent damage to the aircraft. Wheel chocks must be installed when the aircraft is parked. Covers and plugs must be installed to keep contamination and foreign objects out of the different locations of the aircraft.

When the aircraft is parked, the following safety precautions are necessary:

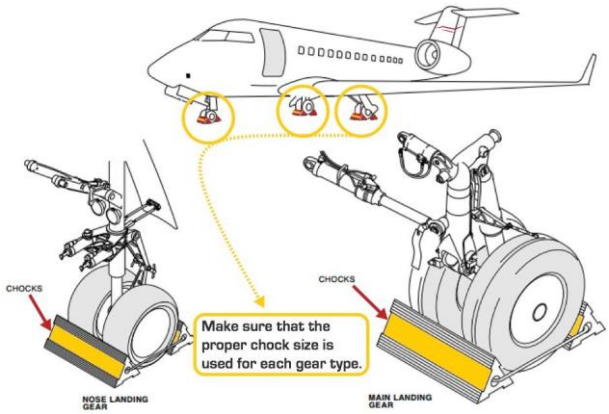
- Installation of all ground lock-pins.
- Installation of the wheel chocks and cones.
- Release the parking brake.
- The flight controls are placed at neutral.
- All access doors/panels are closed.
- Ground the aircraft.
- Installation of all applicable covers and plugs.

All of these precautions must be completed when the aircraft is put in the standard configuration for parking

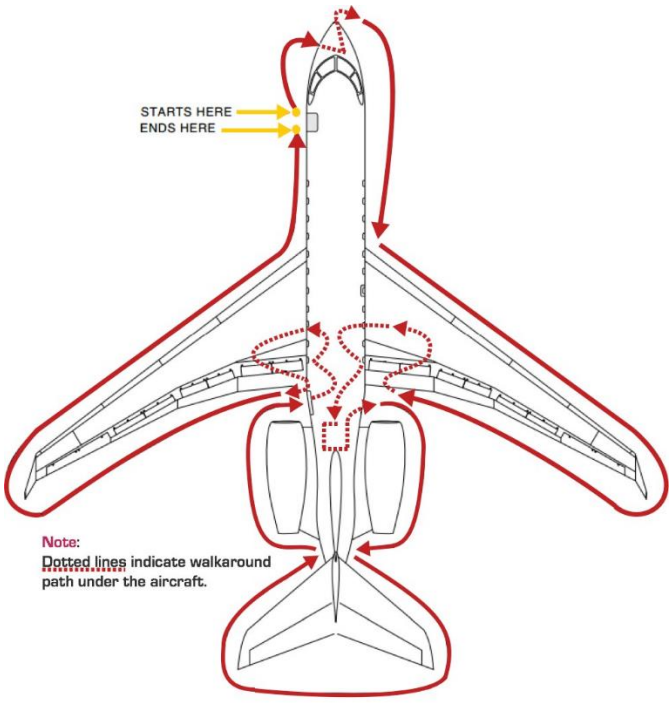
Covers & Plugs

You install covers and plugs to keep contamination and foreign objects out of the different openings on the external surfaces of the aircraft. Covers are also available for the tires, windshields, probes and engine nacelles to prevent damage that weather or accidents cause.

Chocks

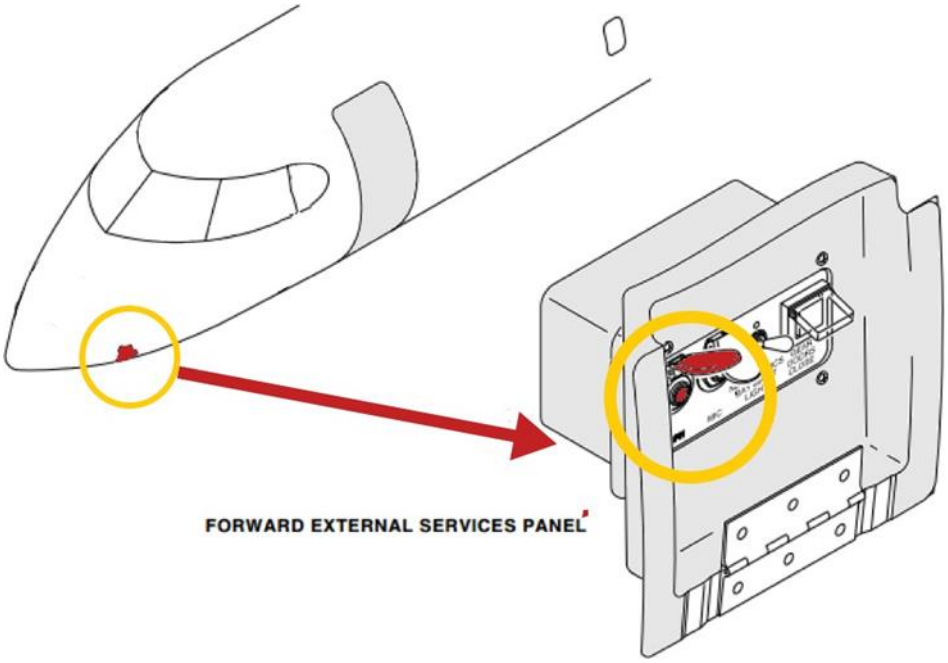


16.2.17 PRE-FLIGHT INSPECTION – WALKAROUND



16.2.18 INTERPHONE CONNECTION FOR HEADSET

The Bombardier Global 5000 is equipped with 3 interphone connections for headsets with plug jacks. GHA/FBO Handling Staff will normally only use the one located at the front left side of the aircraft, near the nose wheel well under the cockpit window.



16.2.19 CLEANING (INTERIOR & EXTERIOR)

16.2.19.1 CLEANING OF FLOOR (NON-TEXTILE)

WARNING	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.**

- Make the surface of the non-textile floor covering wet with warm water.
- Let the water stay on the surface area for 30 seconds to two minutes.

Note: Do not rub the surface of the non-textile floor covering when it is dry. Dirt particles are not easy to remove and can cause scratches in the surface.

- Apply a solution of warm water and detergent to the surfaces of the floor coverings.
- Lightly rub the surface of the non-textile floor covering with the scrubbing brush in a circular movement.
- Let the water and detergent solution stay on the surface area for 30 seconds to two minutes.
- Remove the dirty water from the non-textile floor covering with the vacuum cleaner in the wet mode.
- Clean the surface of the non-textile floor covering with a cloth moist with water.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.

To remove dried stains from the non-textile floor covering:

- Seal all the adjacent plastic and painted surfaces with tape as necessary to prevent contamination caused by leakage.
- Apply a solution of water and detergent to the stain with a sponge or a spray applicator.
- Let the detergent mixture soak for one minute.
- Lightly rub the stain with a plastic scraper to loosen it.
- Clean the surface of the non-textile floor covering with a cloth moist with water.

- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.
- If the stain is not removed, use a clean cloth or sponge to apply the solvent to the stain.
- Apply a solution of warm water and detergent to the dirty areas with a spray applicator or a sponge.
- Make the surfaces wet with a sponge moist with water.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.

16.2.19.2 CLEANING OF FLOOR (TEXTILE COVERINGS)

WARNING	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.**

To spot clean the textile covering:

Note: The procedure that follows is applicable only for aircraft with textile floor coverings installed. Only use the procedure that follows to spot clean small areas of the textile floor covering. If large areas are dirty, remove the covering and dry clean it. If the textile floor covering gets wet, some shrinkage can occur.

- Clean the textile floor covering with a vacuum cleaner in the dry mode.
- Mix the fabric shampoo to make a thick foam.
- Apply the foam to the textile floor covering.
- Use circular movements with a sponge or brush to make sure the textile floor covering absorbs the foam.
- Use a brush in one direction only on the fabric surface of the textile floor covering.
- Let the textile floor covering dry.
- Remove the dirt and the foam with the vacuum cleaner in the wet mode.

To remove dried stains from the textile floor covering:

- Perform following steps if you want to remove the stains caused by the liquids that follow:
  - Tea.
  - Coffee.
  - Fruit juices.
  - Wines.
  - Fruit.
  - Alcoholic beverages.
  - Chocolate.
  - Syrups.
  - Perfumes.
  - Vomit.
  - Urine.
- Apply a solution of water and detergent to the stain with a sponge or a spray applicator.
- Let the detergent mixture soak for one minute.
- Lightly rub the stain with a plastic scraper until there is foam.
- Remove the foam and the dirt with the vacuum cleaner in the wet mode.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.
- If the stain is not fully removed, apply a solution of sodium bicarbonate and water to the stain.
- Lightly rub the stain with a dry, clean cloth.

To remove stains caused by paints, greases, lipstick, inks, oils, jet fuel and hydraulic fluid:

- Absorb as much of the stain as possible with a clean, dry cloth.
- Apply a solution of water and detergent to the stain with a sponge or a spray applicator.
- Let the detergent mixture soak for one minute.
- Apply more water and detergent solution to the stain and lightly rub the stain with the plastic scraper until there is foam.
- Remove the foam and the dirt with the vacuum cleaner in the wet mode.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.
- Use a brush in one direction only on the fabric surface of the textile floor covering.

- Let the textile floor covering dry.
- Remove the foam and the dirt with the vacuum cleaner in the wet mode.

To remove stains caused by adhesives, sealants, paint, asphalt and gum:

- Seal all the adjacent plastic and painted surfaces with moisture resistance tape.
- Clean the area with a vacuum cleaner in the dry mode.
- Do the steps that follow until the stain is gone:
    a) a Apply the solvent to the stain with the spray applicato Let the solvent soak for one minute.
    b) c Lightly rub the stain with a plastic scraper to loosen it.
    c) d Lightly rub the area with a clean, dry cloth.
  - Apply a solution of water and detergent to the stain.
  - Lightly rub the stain with a plastic scraper until there is foam.
  - Let the detergent and water solution soak for two minutes.
  - Remove the foam and the dirt with a vacuum cleaner in the wet mode.

16.2.19.3 EXTERIOR CLEANING - AIRCRAFT WINDOWS

	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.** **Obey the precautions that follow when you do work on or near the windshield or the windows:** • **be careful because the window surfaces have high levels of static voltage for many hours after flight. this can cause injury.** • **make sure that you use only approved tools that do not scratch the surface of the wind-shield or the windows.** • **remove all jewellery from your person. Sharp objects can cause damage to the glass and acrylicsurfaces.** • **use only approved cleaning agents. Use only isopropyl alcohol or a weak cleaning agent mixed with water to clean all materials near the windshield and windows. toluene and other petroleum solvents can cause crazing damage to the acrylic surface.** • **do not use too much pressure on the window surface. the surface can become hot and can causedistortion of the window.** **If you do not obey these instructions, you can cause injury to persons and damage to the equipment.**
	Be careful when you use cleaning agents. Leakage of cleaning agents on internal components of theengines and thrust reversers can cause contamination. This can cause components to become unserviceable or damaged.

- Always use a moist cloth to clean a dirty window surface.

Note Do not rub a window with a dry cloth. This can cause damage to the window.

- Replace the cleaning cloth or sponge with a clean one at each step in the cleaning procedure.

Note: This will decrease the risk of scratches on the window surface.

- Do not rub a dry window surface with a dry cloth.

Note: You can make static electrical charges which can cause the attraction of dust to the window surface. You can also make the acrylic plastic of the passenger compartment windows become too hot which can cause distortion.

- Use only wrinkle cloth to clean the window surfaces.
- Do not clean a window surface that feels hot when touched.

Note: Make sure to allow sufficient time for the window surface to become cool before you clean it.

- Make sure no leakage of the water or cleaning solution occurs when you clean the internal surfaces of the aircraft.

Exterior Window Cleaning with Soap

If you use Ivory soap solution, you can use commercially available equivalent soap solution.

- Mix one cup of Ivory Soap Flakes in 1.0 U.S. gal (3.8 L) of warm water.
- Use a clean cloth to put the solution on the window.
- Lightly clean the surface with your bare hand.

Note: When you use your bare hands, you can easily find and remove dirt before it can cause scratches.

- Dry the surface with a clean cloth moist with clear water.

Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

- Use a new clean cloth and clear water to fully flush the surface.
- Dry the surface with a clean cloth moist with clear water.

Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

16.2.19.4 INTERIOR CLEANING - AIRCRAFT WINDOWS

WARNING	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.** **Obey the precautions that follow when you do work on or near the windshield or the windows:** • **be careful because the window surfaces have high levels of static voltage for many hours afterflight. this can cause injury.** • **make sure that you use only approved tools that do not scratch the surface of the windshield or the windows.** • **remove all jewellery from your person. Sharp objects can cause damage to the glass and acrylicsurfaces.** • **use only approved cleaning agents. Use only isopropyl alcohol or a weak cleaning agent mixed with water to clean all materials near the windshield and windows. toluene and other petroleum solvents can cause crazing damage to the acrylic surface.** • **do not use too much pressure on the window surface. the surface can become hot and can causedistortion of the window.** **If you do not obey these instructions, you can cause injury to persons and damage to the equipment.**

Interior Cockpit Window Cleaning with Soap

If you use Ivory soap solution, you can use commercially available equivalent soap solution.

- Mix one cup of Ivory Soap Flakes in 1.0 U.S. gal (3.8 L) of warm water.
- Use a clean cloth to put the solution on the window.
- Flush the surface with the solution.
- Lightly clean all the dirt and dust from the surface.
- With a clean cloth soaked in clean water, remove the solution.
- Dry the surface with a dry clean cloth.
- Replace the cloth with a dry clean cloth and dry the window.

Interior Passenger Cabin Window Cleaning with Soap

If you use Ivory soap solution, you can use commercially available equivalent soap solution.

- Mix one cup of Ivory Soap Flakes in 1.0 U.S. gal (3.8 L) of warm water.
- With a clean cloth moist with clean water, lightly rub the plastic surface.
- With a clean cloth moist with solution, lightly clean the plastic surface.
- Dry the surface with a clean cloth moist with clear water.

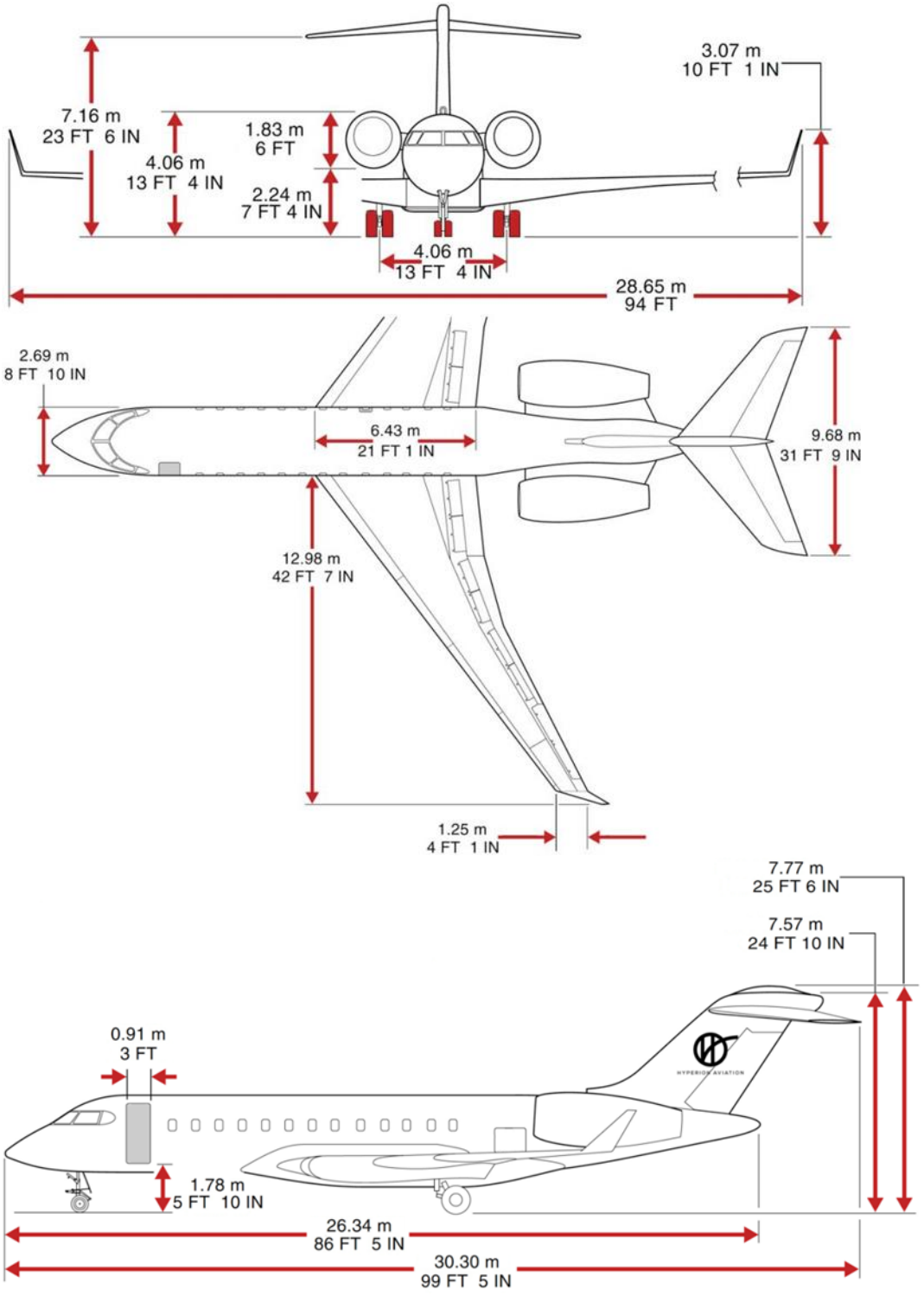
Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

- Use a new clean cloth and clear water to fully flush the surface.
- Dry the surface with a clean cloth moist with clear water.

Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

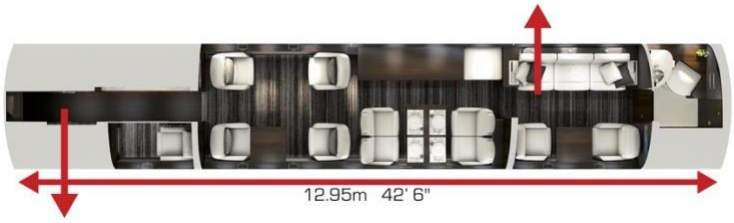
17 AIRCRAFT PRESENTATION - BOMBARDIER GLOBAL 6000 & BOMBARDIER GLOBAL XRS (GLEX)

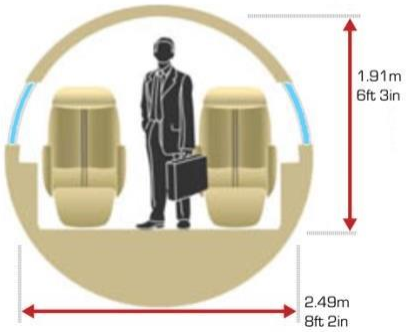
17.1 AIRCRAFT DIMENSIONS



17.1.1 **DOORS & CABIN & INTERIOR DIMENSIONS**

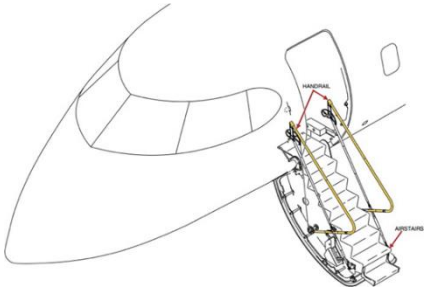
The cabin offers 15 seats with adjustable backrests, folding armrest and a large folding executive table in the centre.





Note: Cabin configuration shown may differ from aircraft configuration operated by FLYINGGROUP and/or Hyperion Aviation.

Cabin Door, External Opening & Closing:



The passenger/crew door is theusual entrance and exit point forthe passengers and crew. There is one passenger door onthis aircraft.

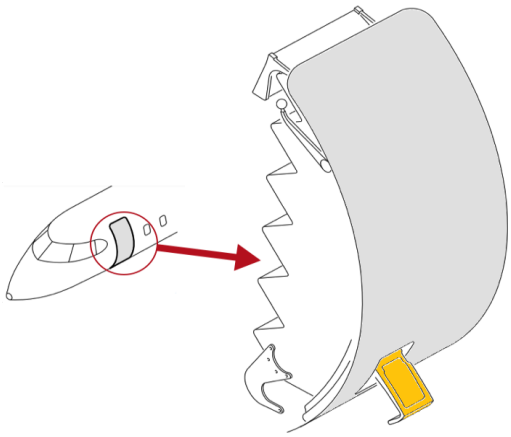
The door is on the left side of the forward fuselage. The door is a plug type door which is attached to airstairs on the innerside. The door and airstairs, which open out down, turn on two brackets attached to theairstairs and hinge points in thefuselage. Handrails are attached to each side of the airstairs and the fuselage. The handrails extend and retract asthe door opens and closes. It ispossible to open and close the door from the inner side or outerside of the aircraft. It can also be closed electrically from inside the aircraft.

Opening

Open the door from the internal or external side as follows:

A. At the internal side of the door:
   1. Pull the handle up on the forward side of the door.
   2. Push the door out and it will lower automatically.

B. At the external side of the door:
   1. Disengage the door lock assembly to unlock the door.
   2. Push the flap in to get your fingers around the handle.
   3. Pull the handle out and push it up.
   4. Pull out on the handle and the door will lower automatically



Closing

Close the door from the internal side as follows:

A. Operate and hold the door switch for 2seconds.

Note: The door will lift to the closed position.

B. Pull the handle down on the forwardside of the door to lock it.

Close the door from the internal side as follows:

Note: The procedure that follows is applicable when the actuator motor does not operate, or when electrical power is not available.

Note: The procedure that follows is applicable when the passenger door manual lanyard is available.

A. If installed, remove the airstairs mid side-cover (aft) to get access to the manual close pulley.
B. Wind the passenger door manual lanyard around the manual close pulley in a clockwise direction (as you look forward).
C. Put the other end of the passenger door manual lanyard into the aircraft.
D. Pull the passenger door manual lanyard to rotate the manual close pulley and lift the door into the closed position.

Note: A force of approximately 50lbf (22.68kgf) is necessary to lift the door into the closed position.

E. Pull the handle down on the forward side of the door to lock it.
F. Remove the passenger door manual lanyard from the manual close pulley.

Close the door from the external side as follows:

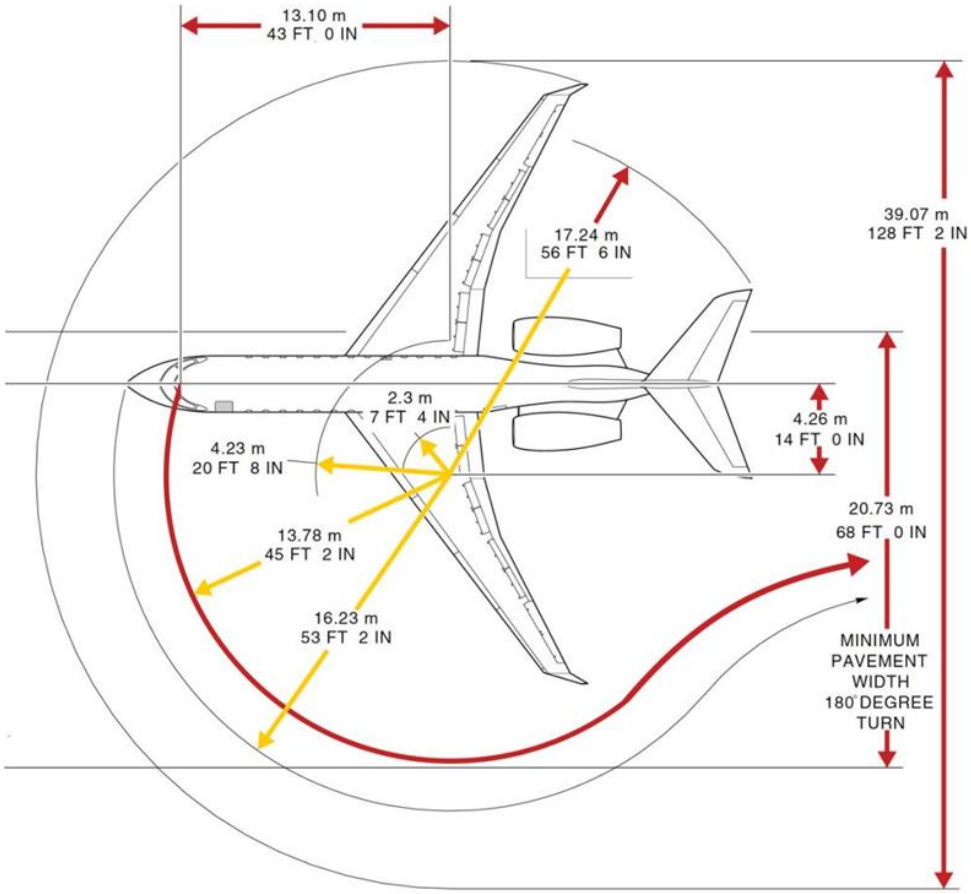
A. Operate and hold the switch found behind the access door until the door lifts to the closed position.
B. Pull the external handle down and push it into the recess to lock the door.
   1) Engage the door lock assembly to lock the door.
C. Close Out
   1) Close the passenger/crew door control panel door.
   2) Remove the electrical power from the aircraft.

17.1.2 **CARGO DOORS**

Access to the cargo area is given by the baggage door. The baggage door is found on the left side of the fuselage. The baggage door is found on the left side of the rear fuselage.

It is installed immediately forward of the rear pressure bulkhead. It is a plug type door that opens in and moves up on tracks installed in the cargo area.

17.1.3 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS



17.1.4 NOSE GEAR TOWING PUSHBACK

You can tow or push the aircraft with a towing tractor when it is not possible to move the aircraft with its power. You can tow the aircraft with a tow bar that attaches to the axle of the nose landing gear. A minimum of two persons are necessary to tow the aircraft. Five persons are necessary to tow the aircraft in small areas.

You must taxi the aircraft with a person in the pilot's seat. The person moves the aircraft with the use of the engine power, the brakes and the nose wheel steering.

17.1.4.1 TOWING AIRCRAFT WITH TOWBAR

You can push or tow the aircraft with the towbar connected to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. When you tow the aircraft, you must disconnect the steering torque arms to let the nose wheel turn freely. When you push back the aircraft, you must disconnect the steering torque arms. When you disconnect the steering torque arms, you can turn the nose wheel 360° degrees.

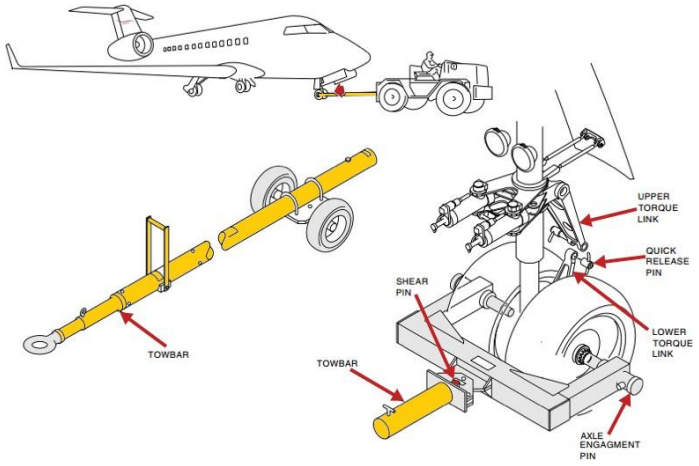
You pull the two quick−disconnect handles to disconnect the torque arms. You connect the towbar to the axle of the nose landing gear and to the tow tractor. The nose wheel steering system must be off. The turn angle of the nose wheel must not be more than 70° degrees when you connect the steering torque arms.

The equipment necessary for a towing operation are as follows:

- Tow tractor.
- Main wheel chocks.
- Towbar: standard or collapsible.
- Two headsets with extension cords.

You can tow the aircraft with the standard towbar or with the collapsible tow bar which you find in the aft equipment compartment. The collapsible towbar is a telescopic type that you extend and lock with a pin to prepare the tow bar for use. Both towbar attach to the nose wheel with a tow head that engages with the holes in the ends of the nose wheel axle.

A shear pin installed in the towbar gives the aircraft protection from too much tow force. The shear pin will break if the push or pull force is more than the safe limit.



The minimum number of persons in the crew are as follows:

- When you tow the aircraft in open areas, two persons are necessary.

Note: One person operates the tow vehicle (tug).

- The other person is the brake operator and operates the brakes in the flight compartment when there is an emergency stop.

- If you tow the aircraft in confined areas, five persons are necessary.

Note: One person operates the tug. Two persons, one at each wing end, are positioned to make sure that there is sufficient clearance for the wing ends. One person makes sure that the tail of the aircraft has sufficient clearance. The other personis the brake operator and operates the brakes in the flight compartment when there is an emergency stop.

- Make sure the person who operates the tug can hear, speak to or get signals from the other persons on the crew.

Note: The person who operates the tug controls the tow operation.

- If you tow the aircraft in low visibility, the ground crew must have light wands to give signals.
- Make sure that there is a crew member in the flight compartment to operate the parking brake in an emergency.

Caution: obey the precautions that follow when you tow the aircraft:

- **Make sure that the nose-landing-gear shock strut Is correctly filled before you disconnect thetorque links.**
- **Make sure that the torque links of the nose landing gear are disconnected. If the aircraft is pushedback in a straight line, the torque links can stay connected.**
- **Keep the turns as large as possible. Make only slow changes to speed and/or direction.**
- **Make sure that the load on the nose landing gear is not less than 1900 lb (862 kg) and that the c of g of the aircraft is within the "c of g" envelope limits. If necessary, make a ballast or fuel adjustment to get the correct load. If you do not do this, you can disconnect or damage the steering mechanism and/or cause the aircraft to tip over.**

If you do not obey these precautions, damage to the aircraft and equipment can occur.

Towing Procedures - Towbar

- Install the towbar on the nose gear.
- Engage the axle engagement pins on the towing head with the holes in the ends of the nose gear axle.
- Connect the towbar to the towing vehicle.
- In the flight compartment, do the steps that follow:
  1. Release the parking brake.
  2. Signal the tug operator that the parking brake is released.
- Remove all the wheel chocks.
- Signal the tug operator that the wheel chocks are out.
- Close the passenger door, as applicable.

Note: Towing the aircraft with the main cabin door open or removed is permitted, but you must obey the speed limit and make sure that you do not have sudden stops and starts.

- Slowly tow the aircraft forward at a speed of not more than 5 mph (8 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes.Note: Do not stop the aircraft in a turn if it is not necessary.

- If necessary, push back the aircraft at a speed of not more than 3 mph (5 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes.Note: Do not stop the aircraft in a turn if it is not necessary.

- If the aircraft is turned before it is parked, move it forward or rearward in a straight line for a short distance.

Note: This is necessary to remove twist forces from the landing gear before you stop the aircraft.

- When the aircraft is in the correct position, stop the aircraft with the tug.

Make sure the wheel chocks are put at the nose and main wheel/tire assemblies. movement of theaircraft can cause injury to persons and damage to the equipment.

- Put the wheel chocks forward and aft of both the NLG and the MLG wheel assemblies.
- Signal the tug operator that the wheel chocks are in.
- In the flight compartment, do the steps that follow:
  1. Set the parking brake as necessary.
  2. Signal the tug operator that the parking brake is set
- Disconnect the towbar from the towing vehicle.
- Connect the torque links as follows:
  1. Pull and hold the two quick−disconnect handles fully out.
  2. Align the pivot of the top torque link with the pivot of the lower torque link.

3. Release the quick−disconnect handles.
4. Make sure that the two quick−disconnect pins engage fully with the pivot of the lower torque link.

- Disconnect the towbar from the nose landing gear.

Towing Procedures - Towbarless

WARNING	**Stay away from the torque link when you release the handle. The torque link is spring-loaded and willmove up quickly when you pull the release handle. If you do not obey this safety precaution, you cancause injury to persons.**

Note: When the torque links are disconnected, there is no limitation on the turn angle.
Note: Before you disconnect the steering torque links, measure the length of chrome that shows on the nose-wheel strut.The chrome that shows should be a minimum of 7.6 cm (3 in) and a maximum of 30.4 cm (12 in).

CAUTION	**The nose wheel shock strut must be compressed sufficiently to ensure that the wheel centering cams remain disengaged during ground manoeuvres. if the shock strut is under serviced or bounces at large castor angles, damage may occur to the steering centering cams or shock strut internal.**

- Disconnect the torque links as follows:
  1. Pull the two quick−disconnect handles at the same time.
  2. Disconnect the top torque link from the lower torque link.
- Connect a headset to the service interphone unit.
- In the flight compartment, perform following steps:
  1. Set the parking brake.
  2. Tell the tug operator that the parking brake is set.
- Remove all the wheel chocks.
- Visually examine the winch strap for possible damage and replace it if necessary.

Note: Replace the winch strap for a new one when it shows evidence of excessive wear. Note: Replace the winch strap as per the manufacturer's operator manual recommendation.

- Visually examine the strut strap and its protective sleeve for possible damage and clean it if necessary.

Note: Replace the strut strap as per the manufacturer's operator manual recommendation. Replace the strut strap any time it shows evidence of excessive wear. Examine the protective sleeve on the strut strap. Make sure it is free from grease, dirt or grit that can cause damage to the piston chrome surface. Sheepskin or braided nylon protective sleeve worn through or abrasive materials can cause damage to the piston chrome surface.

WARNING	**If you move the tug to and from the nose wheels from the rear, make sure you and the vehicle will nottouch aircraft components. If you do not obey this precaution, you can cause injury to yourself and damage to aircraft and components.**

- Move the tug to 3ft. (1m) or less from the aircraft wheels. Make sure that the tug is in line with the nose wheels.

- Stop the tug and lower the nose wheel cradle to 1in (2.54cm) above the ground.

CAUTION	**Do not put the strut strap around the outer cylinder when you tow or push back the aircraft with atowbarless vehicle. You can cause damage to the nose landing gear.**

- Put the strut strap around the chrome piston of the NLG strut. If part of the strut strap is not on the piston, makesure that the shock strut has been serviced correctly.
- Attach the winch strap to the “D” rings of the strut strap.

Note: Make sure that the strut strap is the correct length as follows:

- *The "D" rings and the winch strap hook do not come in contact with the winch drum*
- *The "D" rings and the winch strap hook do not come in contact with the nose−landing−gear.*

- In the flight compartment, do the steps that follow:
  1. Release the parking brake.
  2. Tell the tug operator that the parking brake is released.
- Pull the aircraft on the cradle with the winch until the tire operates the winch cut−off and is tightly held against the stop.
- Make sure that the protruding parts on the nose landing gear stay clear of the cradle and the tug body.
- Lift the cradle sufficiently until it is approximately 3in (7.62cm) above the pavement surface.

Note: The pavement surface must be free from obstacles.
Note: Towing on an irregular surface of more than 1in (2.54cm), including hangar entrance is not permitted.

- Make sure that the winch/strut strap tension is tight but allow approximately 0.50in (1.27cm) of downward movement of the strap when it is manually pushed.
- Close the passenger door, as applicable.

Note: Towing the aircraft with the passenger door open or removed is permitted, but you must obey the speed limit and make sure that you do not have sudden stops and starts.

- Slowly tow the aircraft forward at a speed of not more than 5 mph (8 km/h).

Note: Use only the tug to control the towing speed and not the aircraft brakes.
Note: You must stop the towing operation immediately if the aircraft nose-wheel-assembly position is different from the cradle position. This can show that a torque force is transmitted to the steering system. If this condition occurs, you must examine the NLG tires and NLG wheels as well as the steering system. Monitor the tire chine and the wheel bead.
Note: Do not stop the aircraft in a turn if it is not necessary.

- If necessary, push back the aircraft at a speed of not more than 3mph (5km/h).

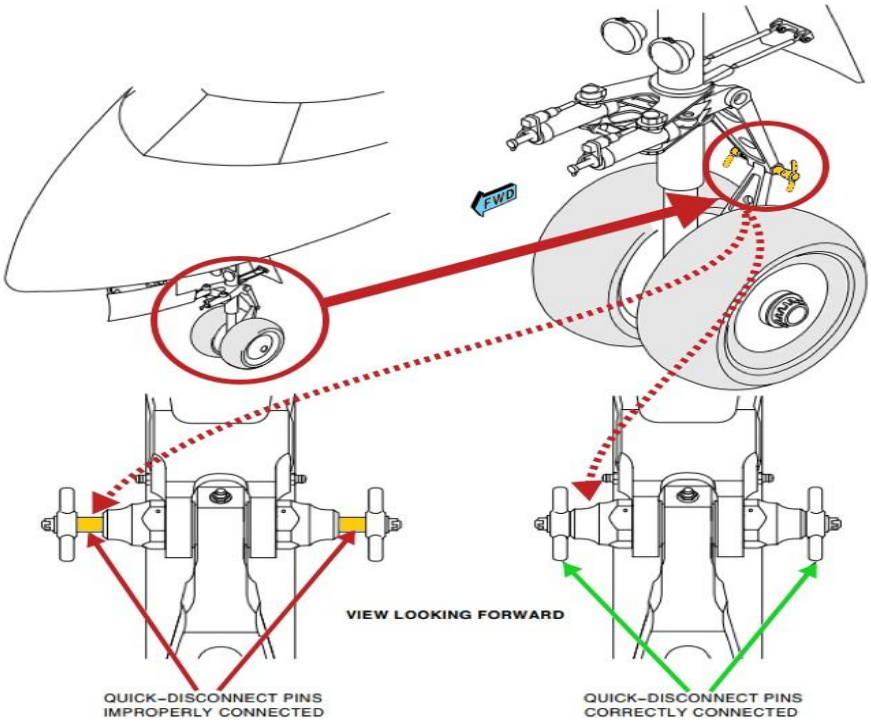
Note: Control the towing speed using only the tug, not the aircraft brakes.
Note: You must stop the towing operation immediately if the aircraft nose-wheel-assembly position is different from the cradle position. This can show that a torque force is transmitted to the steering system. If this condition occurs, you must examine the NLG tires and NLG wheels as well as the steering system. Monitor the tire chine and the wheel bead.
Note: Do not stop the aircraft in a turn if it is not necessary.

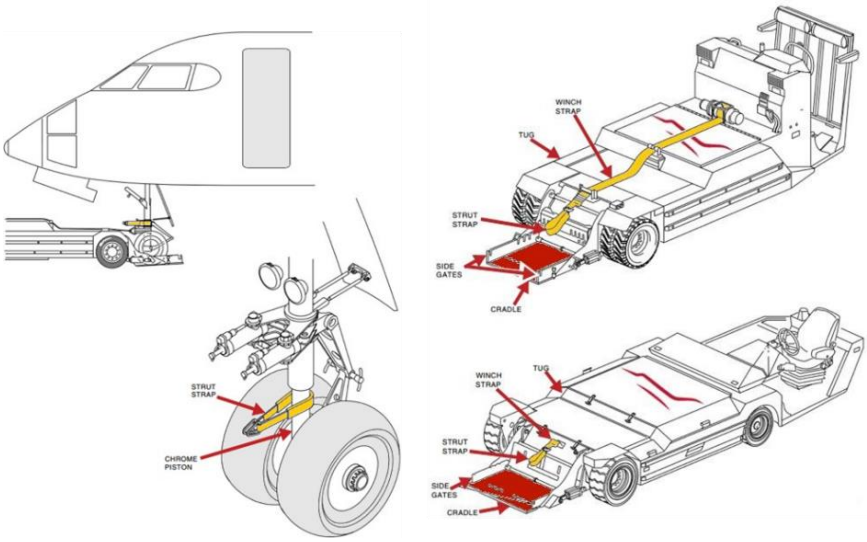
- If the aircraft is turned before it is parked, move it forward or rearward in a straight line for a short distance.
- When the aircraft is in the correct position, stop the aircraft with the tug.
- Lower the cradle.
- In the flight compartment, do the steps that follow:
  1. Set the parking brake.
  2. Tell the tug operator that the parking brake is set.
- Put the wheel chocks forward and aft of the MLG wheel assemblies.
- Disconnect the winch strap from the NLG strut.
- Slowly move the tug away from the aircraft.

WARNING	**Make sure the wheel chocks are put at the nose and main wheel/tire assemblies. Movement of theaircraft can cause injury to persons and damage to the equipment.**

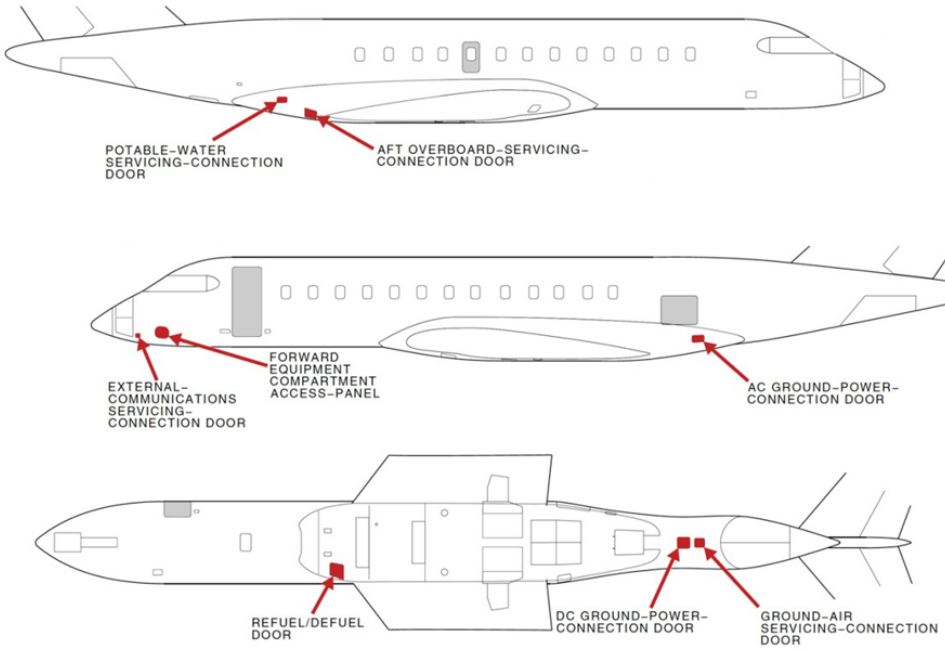
- Put the wheel chocks forward and aft of the NLG wheel assembly.
- Install the ground wire.
- Release the parking brake as necessary.
- Connect the torque links as follows:
  1. Pull out and hold the two quick−disconnect handles.
  2. Align the pivot of the top torque link with the pivot of the lower torque link.

3. Release the quick−disconnect handles.
4. Make sure that the two quick−disconnect pins engage fully with the pivot of the lower torque link.





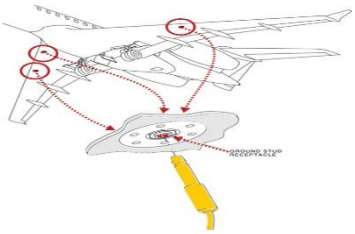
17.1.5 SERVICE CONNECTIONS



17.1.6 REFUELLING - SERVICING

17.1.6.1 AIRCRAFT GROUNDING/BONDING - ELECTROSTATIC LINK

Put the ground cable connector in the nearest ground cable receptacle on the wing leading edge as shown in the illustration.



17.1.6.2 PRESSURE REFUELLING

- Obey all fuel-system safety precautions.
- Move the wheel chocks approximately 6.0in (152.4mm) forward and aft of the tires (main landing gear and noselanding gear).

Note: You need to do this to easily remove the wheel chocks. It is possible for the tires to expand from the weight of the fuel.

WARNING	**Remove all persons, materials, and equipment from below the aircraft before you do the refuel procedure. The weight of the fuel added will compress the landing gear and lower the aircraft. This can cause injury to persons and damage to the equipment.**

-
- Make sure that you remove all personnel and equipment from below the aircraft.
- Make sure that the aircraft is on level ground.

Note: If the aircraft is not level, it will result in uneven fuel loads. This can cause fuel to come out of the NACA scoop.

- Make sure that the fuel tender and the aircraft are correctly grounded.
- Connect the electrical power to the aircraft.

Note: During refuelling procedures, do not change sources of power used (APU to battery, battery to aircraft electrical system, etc.

- In the AUTO Refuel Mode, make sure the throttle quadrant L Engine and R Engine switches are set to OFF.
- Open the REFUEL/DEFUEL PANEL access door.
- Make sure the fuel system conditions that follow are obeyed before you begin the refuel procedures:

Note: During refuelling procedures, do not change sources of power used (APU to battery, battery to aircraft electrical system, etc.).

- Make sure that the switches on the REFUEL/DEFUEL PANEL are set as follows:

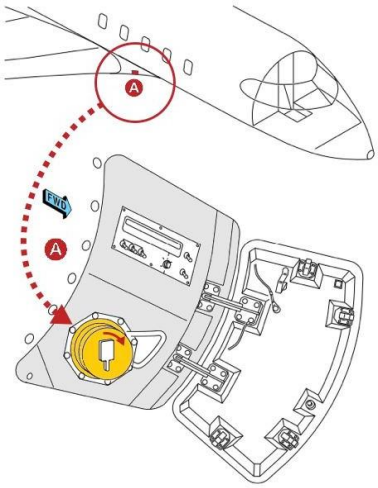
DESIGNATION	POSITION
MANUAL/AUTO	OFF
START/STOP/SOV TEST	Center
MANUAL LEFT	CLOSE
MANUAL CENTER	CLOSE
MANUAL RIGHT	CLOSE

Note: You can set the two MANUAL/AUTO rotary switches (on the external and flight compartment REFUEL/DEFUEL PANEL) out of the OFF position. The MANUAL/AUTO rotary switch which is first set out of OFF position will control the refuel/defuel system. If the first MANUAL/AUTO rotary switch is set to OFF, the second MANUAL rotary switch will then control the refuel/defuel system.

WARNING	**Warning: make sure that the fuel tender, the aircraft, and the fuel nozzle are grounded before you refuel/defuel the aircraft. A static electrical spark during the procedure can cause an explosion or fire.**

- Connect the fuel tender to the aircraftas follows:

1. Remove the cap from the refuel/defuel adapter.
2. Connect the fuel nozzle ground to the aircraft grounding point.
3. Connect the fuel nozzle to the refuel/defuel adapter.
4. Set the fuel pressure on the fuel tender to no more than 50psig (344.74kPa).



WARNING	**When you refuel the aircraft (pressure or gravity), obey the instructions that follow:** • **during the refuelling procedure, the "fuel imbalance" caution message may display when the weight difference between the left and right-wing fuel tanks is more than 600 lbs (272.16 kg) to 1100 lbs (498.95 kg) depending of the wing tanks total fuel quantity.** • **when you complete the refuelling procedure, make sure the weight difference between the left and right-wing fuel tanks is not more than 200 lbs (90.72 kg).** **If the weight difference is more than the limit, the aircraft can move and cause injury to persons and damage to the equipment.**

- Refuel the aircraft as follows:
  1. Set the MANUAL/AUTO switch as follows:

Note: When the MANUAL/AUTO switch is set to a REFUEL position, a BITE test starts. The BITE test is completed whenthe fuel quantities for each tank show in the display.

2. To refuel the wing and centre fuel tanks, set the switch to AUTO/REFUEL.

Note: If the refuel mode is changed and one of the R/D SOV switches is set to OPEN, the RDCP will show INHIB until allSOV switches are set to CLOSED. Refuelling or defueling can be started by setting the SOV OPEN, as necessary.

- Make sure that a fuel quantity shows in the display for each tank and in the TOTAL display. The fuel quantity in the TOTAL and PRESEL displays must be the same.
- Use the INCR/DECR switch to set the quantity of fuel in the PRESEL display.
- Set the START/STOP/SOV TEST switch to START.

Note: The START message shows in PRESEL window and alternates with the preselected quantity.

- Make sure that the fuel quantity increases on the display while you add fuel.

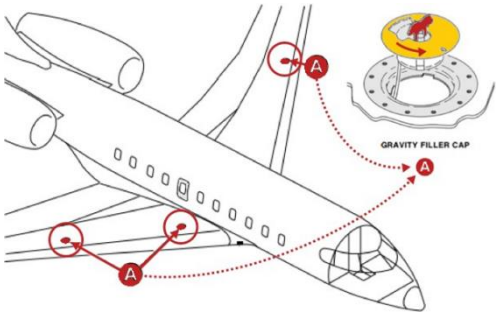
When the pressure refuelling procedure is completed, do the steps that follow:

Note: The pressure refuelling procedure is completed when the quantity in the TOTAL and the PRESEL displays are equal. The COMPLETE message shows in PRESEL window and alternates with the preselected quantity after all related valvesclose at the end of the auto refuel.

- Set the MANUAL/AUTO switch to the OFF position.
- Disconnect the fuel tender from the aircraft as follows:
- Set the fuel pressure on the fuel tender to 0psig (0kPa).
- Disconnect the fuel nozzle from the refuel/defuel adapter.
- Disconnect the fuel nozzle ground from the aircraft grounding point.
- Install the cap on the refuel/defuel adapter
-

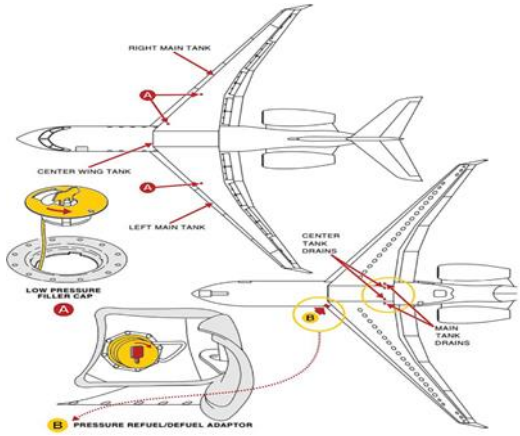
17.1.6.3 GRAVITY REFUELLING

Specific instruction exists for gravity refuelling which should be obtained through the Hyperion Flight Crew.



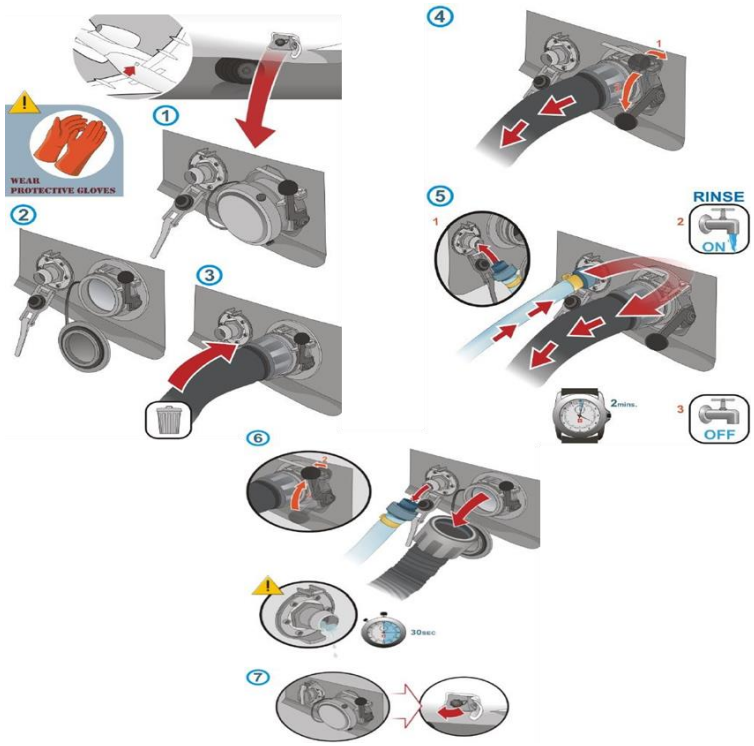
Gravity refuelling access points are located on the wing of the aircraft and closed by gravity filler caps as shown in the illustration.

Pressure refuelling connection is located on the right-hand wing root.



17.1.7 WASTE SYSTEM SERVICING

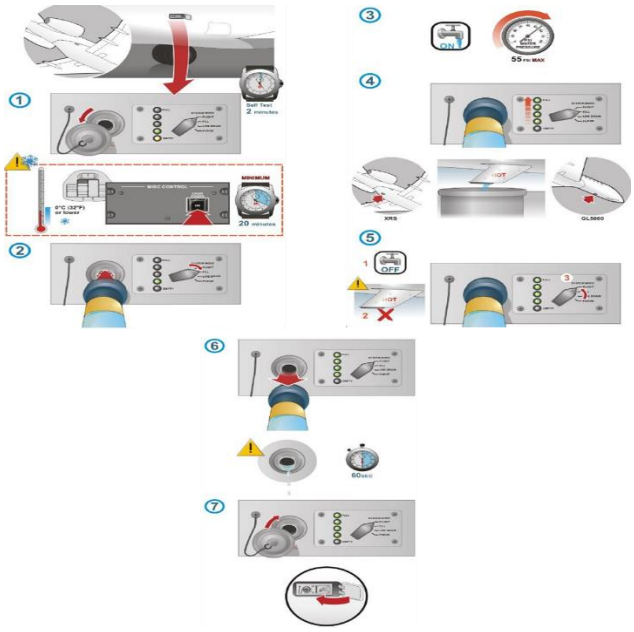
The Bombardier Global 6000 is equipped with a waste servicing station, located at the right-hand lower fuselage side, under the right-hand engine. Servicing instructions are provided as follows:



CAUTION	**After servicing all GSP/FBO staff in charge of performing waste service on the Bombardier Global 6000 aircraft must only use clear tap water to rinse the lavatory waste tank, as only clear tap water isallowed for use by Bombardier. Lavatory waste tank rinsing must last at least for 2 minutes.**

17.1.8 POTABLE WATER SERVICING

The Bombardier Global 6000 is equipped with a potable water servicing station, located at the right hand lower fuselage side, under the right-hand engine. Servicing instructions are provided as follows:



17.1.9 EXTERNAL POWER - GPU - CONNECTION

The Bombardier Global 6000 is equipped with a GPU connection receptacle which is used to connect GPU's (Ground Power Units, 115/208VAC, 3 Phase, 400HZ, 75KVA and 28VDC).

WARNING	**Warn all persons on the aircraft before you energize the electrical systems. If this is not done, it can cause injuries to persons and/or damage to equipment.**

Connecting

Connect and energize the external ac power as follows:

- Connect the ac connector of the ground power unit to the aircraft's external-power receptacle at the aft electricalservice control-panel.
- Operate the ground power unit to apply ac ground power to the aircraft and set the voltage to 115 Vac.
- On the aft service control-panel, make sure the EXT AC AVAIL light comes on.

For ground service mode (limited loads), do the steps that follow:

- On the aft service control-panel, push one time the GROUND SERVICE switch to set it to ON.
- Make sure the GROUND SERVICE ON light comes on.
- Make sure the EXT AC AVAIL light goes off.
- Make sure the EXT AC IN USE light comes on.

Disconnecting

After ground service (ground service mode), do the steps that follow:

a) On the aft service control-panel, push one time the GROUND SERVICE switch to set it to off.
b) Make sure the GROUND SERVICE ON light goes off.
c) Make sure the EXT AC AVAIL light comes on.
d) Make sure the EXT AC IN USE light goes off.

- Operate the ground power unit to stop the supply of external ac power.

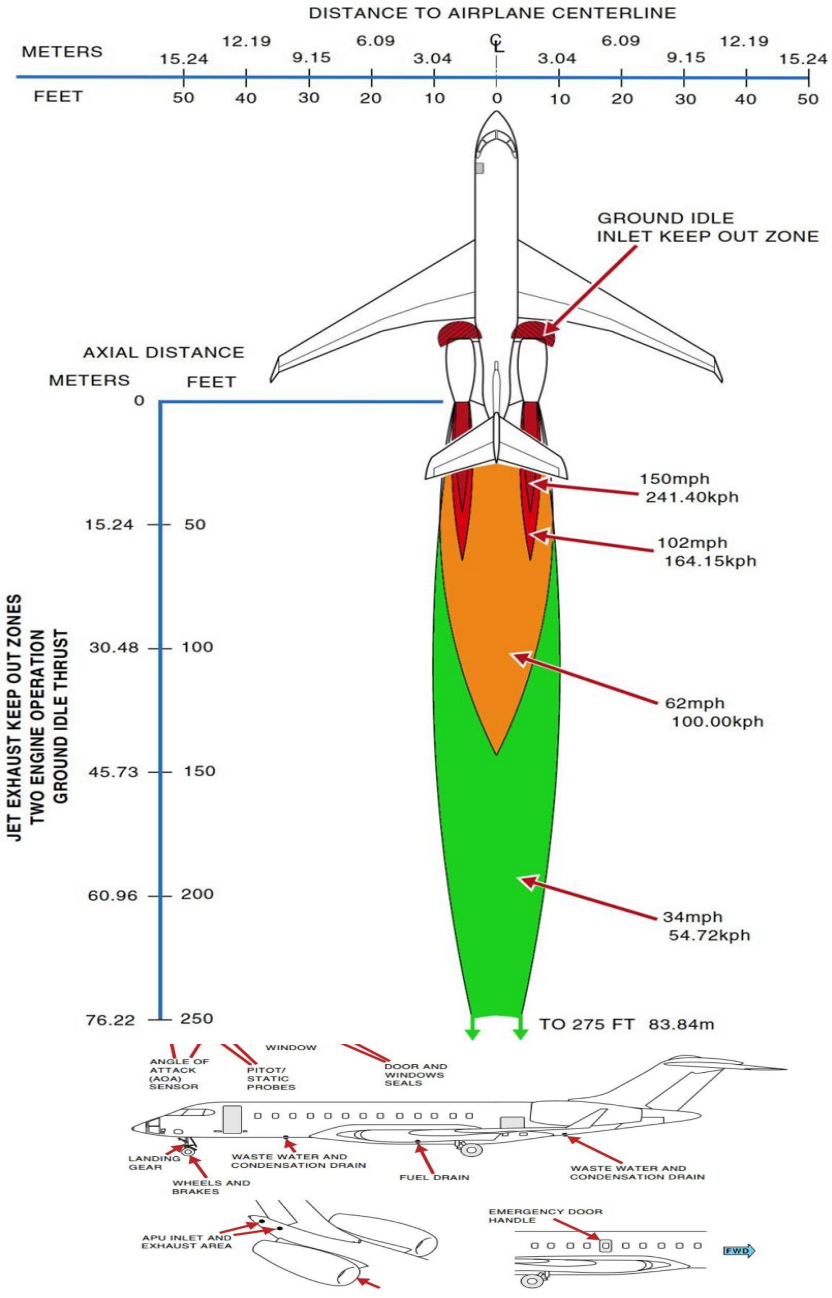
- On the aft service control-panel, make sure the EXT AC AVAIL light goes off.
- Disconnect the ac connector of the ground power unit from the aircraft external-power receptacle.
- Close the access door.

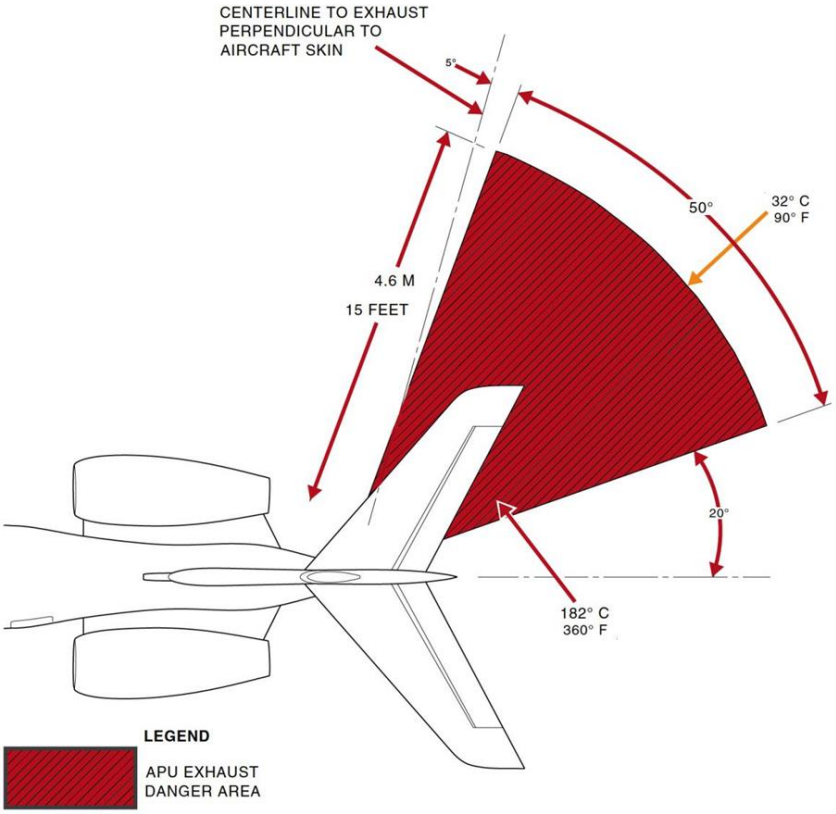
17.1.10 DE-ICING/ANTI-ICING - SPRAY/NO-SPRAY ZONES

The first area to be De/Anti-Iced should be visible from the cabin/cockpit and should be used to provide a conservative estimate for unseen areas of the airplane before departure/take-off.

Refer also to generic information on De/Anti-Icing no spray zones in "GOM/A 8.4".

17.1.11 ENGINES IDLE THRUST - BLAST AREAS





17.1.12 APU - BLAST AREAS

17.1.13 AIRCRAFT PARKING

When the aircraft is parked, or put in storage, some precautions are necessary to prevent damage to the aircraft. Wheel chocks must be installed when the aircraft is parked. Covers and plugs must be installed to keep contamination and foreign objects out of the different locations of the aircraft.

When the aircraft is parked, the following safety precautions are necessary:

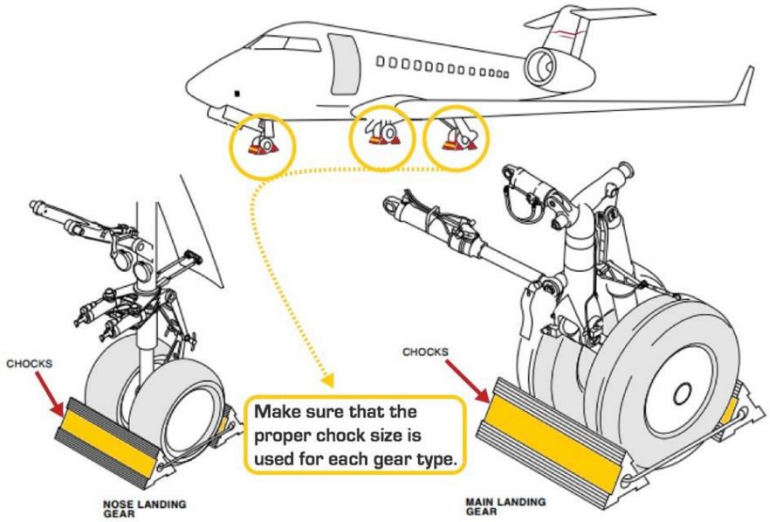
- Installation of all ground lock-pins.
- Installation of the wheel chocks and cones.
- Release the parking brake.
- The flight controls are placed at neutral.
- All access doors/panels are closed.
- Ground the aircraft.
- Installation of all applicable covers and plugs.

All of these precautions must be completed when the aircraft is put in the standard configuration for parking.

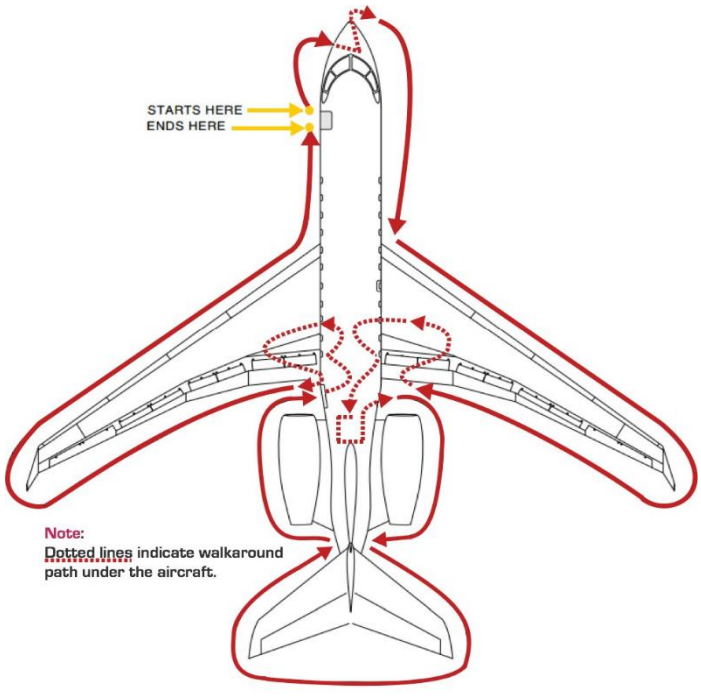
Covers & Plugs

You install covers and plugs to keep contamination and foreign objects out of the different openings on the external surfaces of the aircraft. Covers are also available for the tires, windshields, probes and engine nacelles to prevent damage that weather or accidents cause.

Chocks

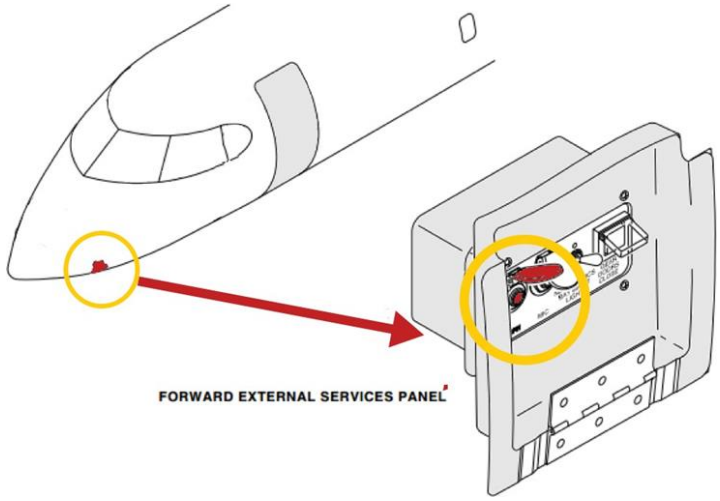


17.1.14 **PRE-FLIGHT INSPECTION - WALKAROUND**



17.1.15 INTERPHONE CONNECTION FOR HEADSET

The Bombardier Global 6000 is equipped with 3 interphone connections for headsets with plug jacks. GHA/FBO Handling Staff will normally only use the one located at the front left side of the aircraft, near the nose wheel well under the cockpit window.



17.1.16 CLEANING (INTERIOR & EXTERIOR)

WARNING	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.**

- Make the surface of the non-textile floor covering wet with warm water.
- Let the water stay on the surface area for 30 seconds to two minutes.

Note: Do not rub the surface of the non-textile floor covering when it is dry. Dirt particles are not easy to remove and can cause scratches in the surface.

- Apply a solution of warm water and detergent to the surfaces of the floor coverings.
- Lightly rub the surface of the non-textile floor covering with the scrubbing brush in a circular movement.
- Let the water and detergent solution stay on the surface area for 30 seconds to two minutes.
- Remove the dirty water from the non-textile floor covering with the vacuum cleaner in the wet mode.
- Clean the surface of the non-textile floor covering with a cloth moist with water.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.

To remove dried stains from the non-textile floor covering:

- Seal all the adjacent plastic and painted surfaces with tape as necessary to prevent contamination caused by leakage.
- Apply a solution of water and detergent to the stain with a sponge or a spray applicator.
- Let the detergent mixture soak for one minute.
- Lightly rub the stain with a plastic scraper to loosen it.
- Clean the surface of the non-textile floor covering with a cloth moist with water.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.
- If the stain is not removed, use a clean cloth or sponge to apply the solvent to the stain.
- Apply a solution of warm water and detergent to the dirty areas with a spray applicator or a sponge.
- Make the surfaces wet with a sponge moist with water.

- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.

CLEANING OF FLOOR (TEXTILE COVERINGS)

WARNING	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.**

To spot clean the textile covering:

Note: The procedure that follows is applicable only for aircraft with textile floor coverings installed. Only use the procedure that follows to spot clean small areas of the textile floor covering. If large areas are dirty, remove the covering and dry clean it. If the textile floor covering gets wet, some shrinkage can occur.

- Clean the textile floor covering with a vacuum cleaner in the dry mode.
- Mix the fabric shampoo to make a thick foam.
- Apply the foam to the textile floor covering.
- Use circular movements with a sponge or brush to make sure the textile floor covering absorbs the foam.
- Use a brush in one direction only on the fabric surface of the textile floor covering.
- Let the textile floor covering dry.
- Remove the dirt and the foam with the vacuum cleaner in the wet mode.

To remove dried stains from the textile floor covering:

- Perform following steps if you want to remove the stains caused by the liquids that follow:
  - Tea.
  - Coffee.
  - Fruit juices.
  - Wines.
  - Fruit.
  - Alcoholic beverages.
  - Chocolate.
  - Syrups.
  - Perfumes.
  - Vomit.
  - Urine.
- Apply a solution of water and detergent to the stain with a sponge or a spray applicator.
- Let the detergent mixture soak for one minute.
- Lightly rub the stain with a plastic scraper until there is foam.
- Remove the foam and the dirt with the vacuum cleaner in the wet mode.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.
- If the stain is not fully removed, apply a solution of sodium bicarbonate and water to the stain.
- Lightly rub the stain with a dry, clean cloth.

To remove stains caused by paints, greases, lipstick, inks, oils, jet fuel and hydraulic fluid:

- Absorb as much of the stain as possible with a clean, dry cloth.
- Apply a solution of water and detergent to the stain with a sponge or a spray applicator.
- Let the detergent mixture soak for one minute.
- Apply more water and detergent solution to the stain and lightly rub the stain with the plastic scraper until there is foam.
- Remove the foam and the dirt with the vacuum cleaner in the wet mode.
- Lightly rub the area with a clean, dry cloth to remove the remaining moisture.
- Use a brush in one direction only on the fabric surface of the textile floor covering.
- Let the textile floor covering dry.
- Remove the foam and the dirt with the vacuum cleaner in the wet mode.

To remove stains caused by adhesives, sealants, paint, asphalt and gum:

- Seal all the adjacent plastic and painted surfaces with moisture resistance tape.
- Clean the area with a vacuum cleaner in the dry mode.
- Do the steps that follow until the stain is gone:
  a) a Apply the solvent to the stain with the spray applicator.
  b) b Let the solvent soak for one minute.
  c) c Lightly rub the stain with a plastic scraper to loosen it.
  d) d Lightly rub the area with a clean, dry cloth.
  - Apply a solution of water and detergent to the stain.
  - Lightly rub the stain with a plastic scraper until there is foam.
  - Let the detergent and water solution soak for two minutes.

Remove the foam and the dirt with a vacuum cleaner in the wet mode

EXTERIOR CLEANING - AIRCRAFT WINDOWS

	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.** **Obey the precautions that follow when you do work on or near the windshield or the windows:** • **be careful because the window surfaces have high levels of static voltage for many hours after flight. this can cause injury.** • **make sure that you use only approved tools that do not scratch the surface of the wind-shield or the windows.** • **remove all jewellery from your person. Sharp objects can cause damage to the glass and acrylicsurfaces.** • **use only approved cleaning agents. Use only isopropyl alcohol or a weak cleaning agent mixed with water to clean all materials near the windshield and windows. toluene and other petroleum solvents can cause crazing damage to the acrylic surface.** • **do not use too much pressure on the window surface. the surface can become hot and can causedistortion of the window.** **If you do not obey these instructions, you can cause injury to persons and damage to the equipment.**
	**Be careful when you use cleaning agents. Leakage of cleaning agents on internal components of theengines and thrust reversers can cause contamination. This can cause components to become unserviceable or damaged.**

- Always use a moist cloth to clean a dirty window surface.

Note Do not rub a window with a dry cloth. This can cause damage to the window.

- Replace the cleaning cloth or sponge with a clean one at each step in the cleaning procedure.

Note: This will decrease the risk of scratches on the window surface.

- Do not rub a dry window surface with a dry cloth.

Note: You can make static electrical charges which can cause the attraction of dust to the window surface. You can also make the acrylic plastic of the passenger compartment windows become too hot which can cause distortion.

- Use only wrinkle cloth to clean the window surfaces.
- Do not clean a window surface that feels hot when touched.

Note: Make sure to allow sufficient time for the window surface to become cool before you clean it.

- Make sure no leakage of the water or cleaning solution occurs when you clean the internal surfaces of the aircraft.

Exterior Window Cleaning with Soap

If you use Ivory soap solution, you can use commercially available equivalent soap solution.

- Mix one cup of Ivory Soap Flakes in 1.0 U.S. gal (3.8 L) of warm water.
- Use a clean cloth to put the solution on the window.
- Lightly clean the surface with your bare hand.

Note: When you use your bare hands, you can easily find and remove dirt before it can cause scratches.

- Dry the surface with a clean cloth moist with clear water.

Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

- Use a new clean cloth and clear water to fully flush the surface.
- Dry the surface with a clean cloth moist with clear water.

Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

INTERIOR CLEANING - AIRCRAFT WINDOWS

WARNING	**Do not stand on aircraft surfaces that are wet. Wet surfaces can cause you to fall. This can cause injury.** **Obey the precautions that follow when you do work on or near the windshield or the windows:** • **be careful because the window surfaces have high levels of static voltage for many hours afterflight. this can cause injury.** • **make sure that you use only approved tools that do not scratch the surface of the windshield orthe windows.** • **remove all jewellery from your person. Sharp objects can cause damage to the glass and acrylicsurfaces.** • **use only approved cleaning agents. Use only isopropyl alcohol or a weak cleaning agent mixed with water to clean all materials near the windshield and windows. toluene and other petroleum solvents can cause crazing damage to the acrylic surface.** • **do not use too much pressure on the window surface. the surface can become hot and can causedistortion of the window.** **If you do not obey these instructions, you can cause injury to persons and damage to the equipment.**

Interior Cockpit Window Cleaning with Soap

If you use Ivory soap solution, you can use commercially available equivalent soap solution.

- Mix one cup of Ivory Soap Flakes in 1.0 U.S. gal (3.8 L) of warm water.
- Use a clean cloth to put the solution on the window.
- Flush the surface with the solution.
- Lightly clean all the dirt and dust from the surface.
- With a clean cloth soaked in clean water, remove the solution.
- Dry the surface with a dry clean cloth.
- Replace the cloth with a dry clean cloth and dry the window.

Interior Passenger Cabin Window Cleaning with Soap

If you use Ivory soap solution, you can use commercially available equivalent soap solution.

- Mix one cup of Ivory Soap Flakes in 1.0 U.S. gal (3.8 L) of warm water.
- With a clean cloth moist with clean water, lightly rub the plastic surface.
- With a clean cloth moist with solution, lightly clean the plastic surface.
- Dry the surface with a clean cloth moist with clear water.

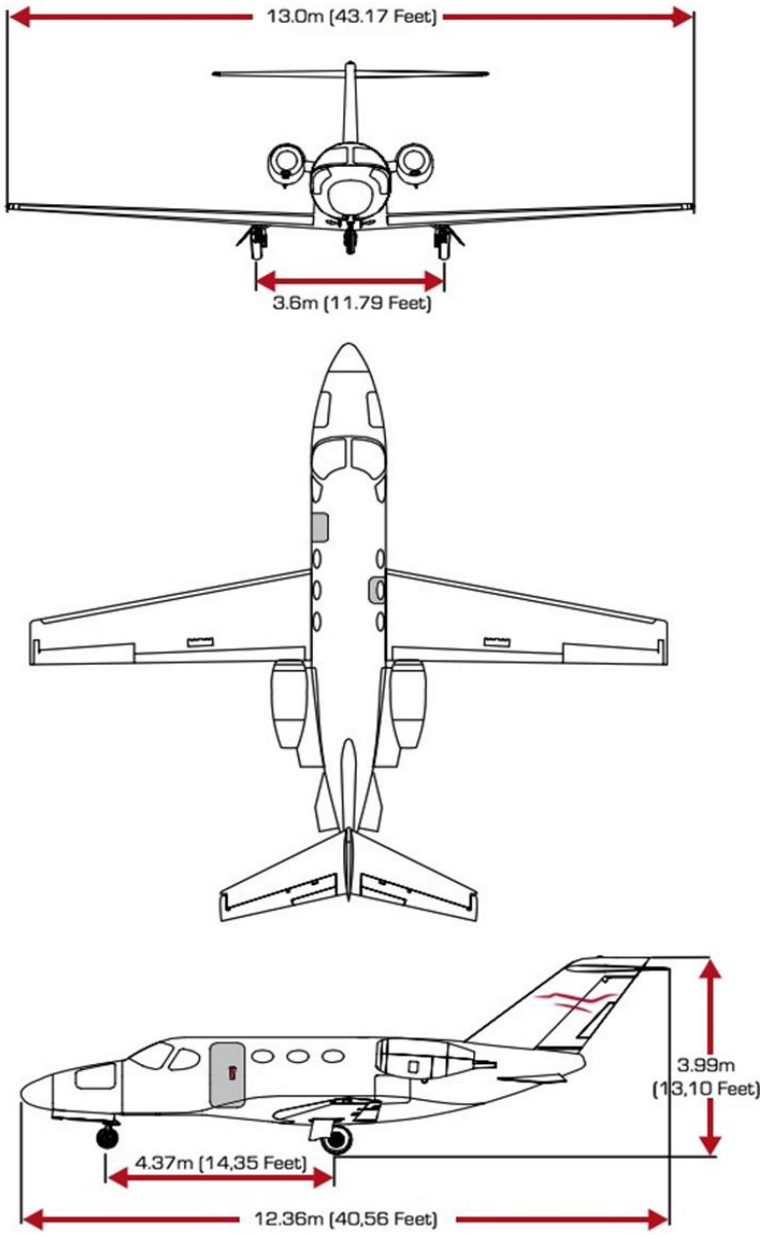
Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

- Use a new clean cloth and clear water to fully flush the surface.
- Dry the surface with a clean cloth moist with clear water.

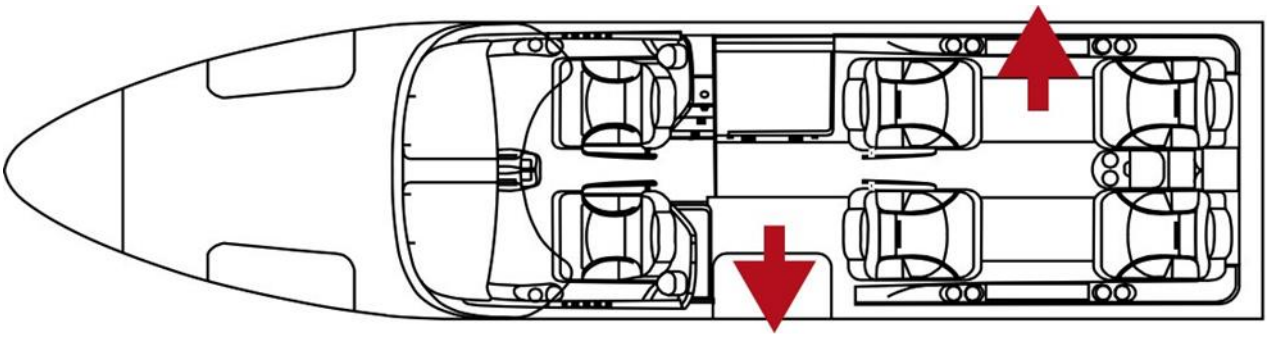
Note: Do not continue to rub the surface after it dries. This can cause damage to the window.

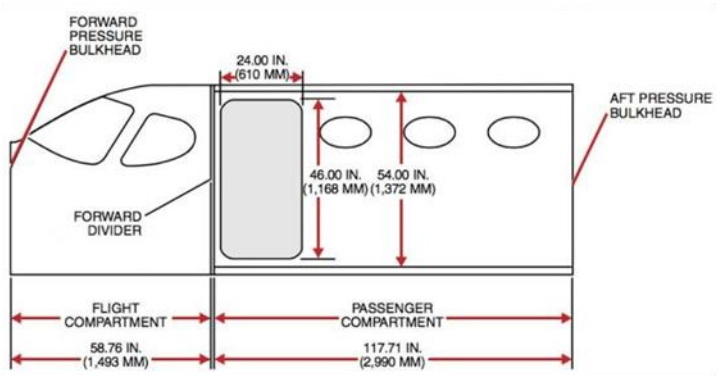
17.2 AIRCRAFT PRESENTATION – CESSNA CITATION MUSTANG (C510)

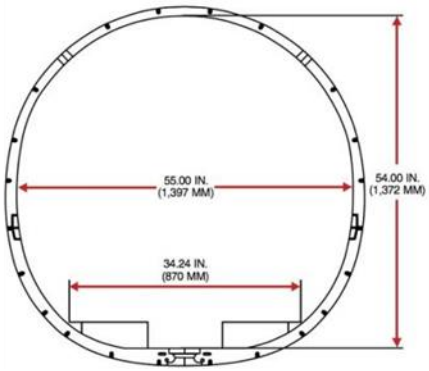
AIRCRAFT DIMENSIONS



17.2.1 DOORS & CABIN & INTERIOR DIMENSIONS







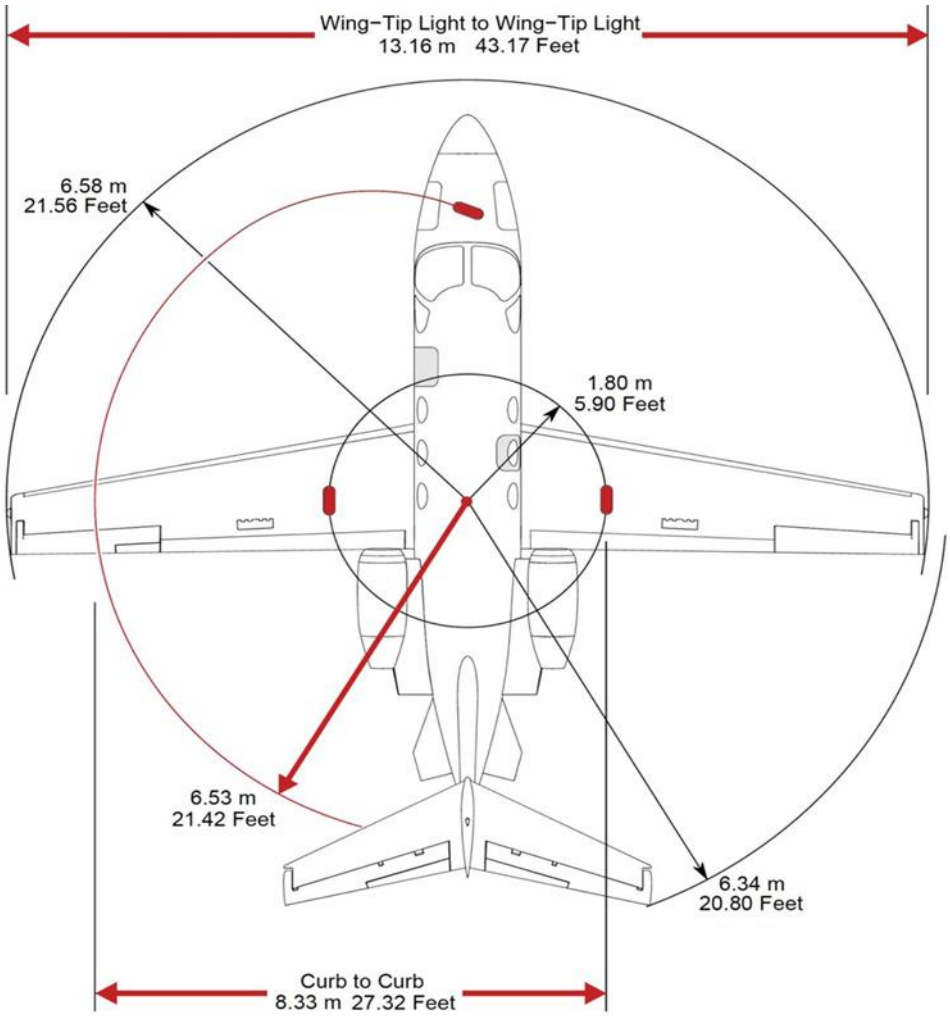
The aircraft cabin door is on the forward left side of the fuselage. The entrance door opens outboard and forward. The door can be opened from inside and outside the airplane. The exterior handle can be secured with a key.

CAUTION	**It must be checked that the key is removed from the entrance door prior to flight to prevent possible ingestion of the key into an engine.**

An adjustable stop prevents the door from opening too far. Once the door is fully open, a hook locks the door into position. To unlatch the hook and let the door close, a release button inside the cabin (inside left of door opening) must be pushed. This lets the door move freely.

CAUTION	**The locking pins will contact and damage the painted surface of the fuselage if an attempt is made to shut the door with the handle in the closed (up) position.**

17.2.2 GROUND CLEARANCE & STEERING ARC & TOWING RAD



17.2.3 NOSE GEAR TOWING & PUSHBACK

CAUTION	**Towing instructions and safety guidelines/warnings in "GOM/A 4.13" should also be consulted and applied.**

The airplane can be towed with a yoke-type towbar attached to the nose wheel. The airplane also can be towed by the nose wheel held on the platform of an electric towbarless tow vehicle.

CAUTION	**Do not turn the nose gear more than its turn limit. If you do, the nose gear turn angle will break the stop bolts on the top of the trunnion.**

(1) When the airplane is towed, the vehicle operator must make sure that they do not turn the nose gear more than itslimits.
(2) Steering is done with the towbar or the towbarless vehicle when the airplane is towed.

An approved person must be in the airplane during the tow operation to be prepared for dangerous conditions.

Put personnel to walk with the wing and/or the tail to make sure that there is sufficient clearance between the airplane and adjacent equipment and structures.

NOSE GEAR TOWING

Towbar Towing

	• **Make sure that there is sufficient weight forward of the centre of gravity.** • **Add weight or remove weight as necessary to adjust the centre of gravity for interiorconfigurations or an airplane without fuel.** • **Do not turn the nose landing gear more than an angle of 75 degrees to the right or to the left side of centre. A nose gear that goes beyond the tow stop (75 degree limit) will break the stop bolts on the top of the trunnion and cause damage to the nose-wheel steering system.** • **Do not move the airplane in 15 minutes or less after the standby attitude indicator gyro has stopped. This can cause damage to the gyro.** • **Make sure that the recommended towbar is used. Make sure that the towbar is in good condition, inspect the towbar at intervals for cracks and condition.** • **Do not use the nose landing gear to release the airplane if it becomes caught in soft dirt. Contact Citation Customer Service.** • **Make sure that you disengage the rudder control lock before you tow the airplane. If you do not disengage it, damage to the airplane can occur.**

Note: The airplane can be towed with the elevator and aileron control locks installed in the control column.

1) Position the towbar at the nose-wheel and insert the towbar into the nose-wheel axle.
2) Engage the towbar locking handle.
3) Connect the towbar to the tow vehicle.
4) Put an approved person in the pilot's seat.
5) Disengage the rudder control lock.
6) Disengage the parking brake.
7) Make sure that the wheel chocks, static ground cables, and mooring ropes are removed.
8) Put personnel at the wing and/or the tail to walk and to look for sufficient clearance between the airplane and adjacent equipment or structures.
9) Tow the airplane and make smooth starts and stops during the procedure.
10) When the tow operation is complete, make sure that you do as follows:
    (a) Put the nose-wheel to the centre position.
    (b) Engage the parking brake.
    (c) If necessary, install the elevator and aileron control locks.
    (d) Put the chocks in position at the wheels.
    (e) Connect the static ground cables.
    (f) Engage the rudder control lock.
    (g) Remove the towbar from the airplane.

Towbarless Towing, with Electric Vehicle

CAUTION

- **Make sure that there is sufficient weight forward of the centre of gravity.**
- **Add weight or remove weight as necessary to adjust the centre of gravity for interiorconfigurations or an airplane without fuel.**
- **Do not turn the nose landing gear more than an angle of 75 degrees to the right or to the left side of centre. A nose gear that goes beyond the tow stop (75 degree limit) will break the stop bolts on the top of the trunnion and cause damage to the nose-wheel steering system.**
- **Do not move the airplane in 15 minutes or less after the standby attitude indicator gyro has stopped. This can cause damage to the gyro.**
- **Make sure the recommended electric towbarless vehicle is used.**
- **Make sure that the electric towbarless vehicle is not more than 8 400 pounds (3 810.18 kg).**
- **Make sure that you disengage the rudder control lock before you tow the airplane. If you do not disengage it, damage to the airplane can occur.**

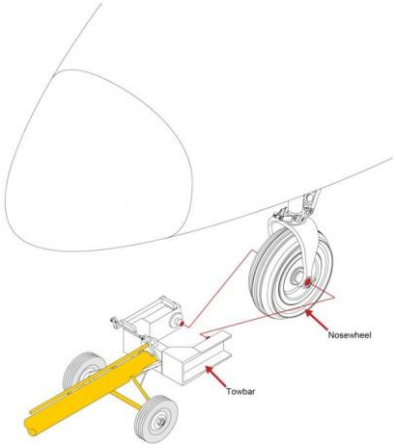
Note: The airplane can be towed with the elevator and aileron control locks installed in the control column.

1) Wind a winch-strap around the nose landing gear strut immediately above the fork and the electric towbarless vehicle.
2) Put an approved person in the pilot's seat.
3) Disengage the rudder control lock.
4) Disengage the parking brake.
5) Make sure that the wheel chocks, static ground cables, and mooring ropes are removed.
6) Put personnel at the wing and/or the tail to walk and to look for sufficient clearance between the airplane and adjacent equipment or structures.

CAUTION

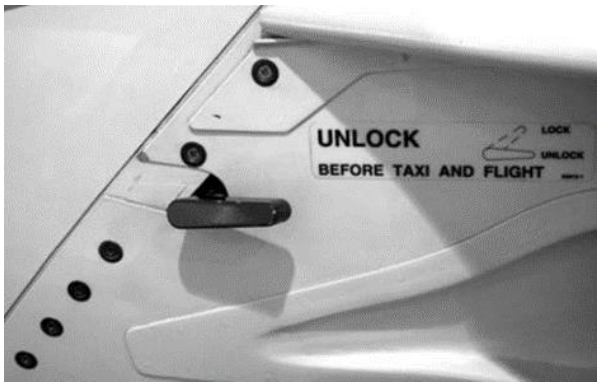
- **Make sure that the tail stand is removed before you lift the nose. If it is not removed, the tail stand can hit the ground and cause damage to the airplane.**

7) Lift the nose landing gear into theelectric towbarless tow vehicle.
8) Tow the airplane and make smooth starts and stops during the procedure.
9) When the tow operation is complete,make sure that you do as follows:
   (a) Put the nose wheel to the centreposition.
   (b) Engage the parking brake.
   (c) If necessary, engage the controllocks.
   (d) Put the chocks in position at thewheels.



RUDDER LOCK

The rudder control lock must be operated from outside the aircraft. To lock the rudder the Flight Crew rotates a handle on an external lever on the left side of the tail cone, 60° counter clockwise (up), which inserts a pin into the aft rudder pulley to lock the rudder torque tube.



The lock disengages when the external lever is rotated to point aft (streamlined). The lock can also be disengaged from the cockpit by pulling the control yoke aft from the neutral position.

CAUTION	**With the rudder lock engaged, the nose wheel system allows up to 55° of free castering. Disengage the rudder lock before towing. The rudder lock can be released and re-engaged externally.**

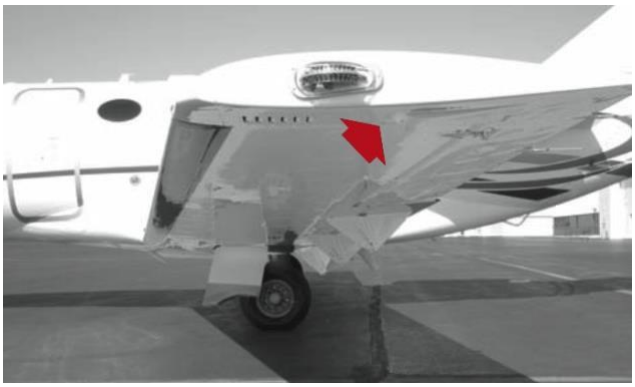
17.2.4 REFUELLING - SERVICING

The aircraft has one fuel tank filler assembly on the upper surface of each wing, between main spar and aileron. The filler assembly consists of a flush-type cap and a standpipe.

Fuel servicing includes procedures necessary for fuelling, and procedures used to check the fuel for contamination or condensation. The fuel is serviced through the flush-type cap on the outboard section of either wing.

17.2.4.1 AIRCRAFT GROUNDING/BONDING

There are two approved grounding points on the aircraft.They are located on the outboard end of each wing.



17.2.5 WASTE SYSTEM - SERVICING

A simple toilet can be installed in the airplane.

Toilet Servicing

The toilet installed on the airplane has a waste bucket that can be removed.

1) Lift the seat cover on the toilet.
2) Remove the bucket from the inside of the toilet compartment.
3) Remove the bag from the bucket and seal the bag for disposal.
4) Put a new bag inside the bucket.
5) Put the bucket into the toilet compartment and close the lid.

17.2.6 POTABLE WATER - SERVICING

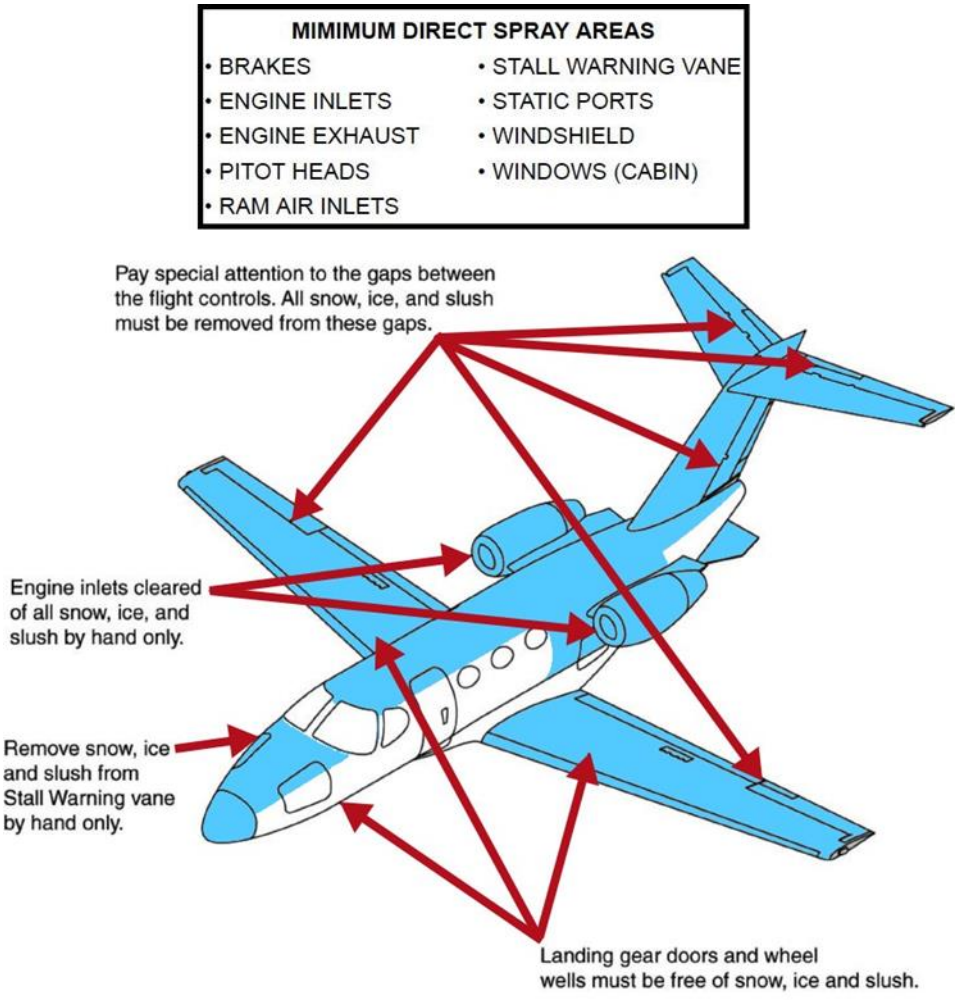
Feature not available on this aircraft type.

17.2.7 EXTERNAL POWER – GPU – CONNECTIONS

A GPU can be connected to the aircraft DC system through a receptacle in the fuselage below the right engine nacelle. A GPU providing a maximum of 29VDC may be used. Before connecting the GPU GHA/FBO Handling Staff will ensure that the voltage of the GPU is regulated to 28-29 volts, the amperage output between 800 and 1100 amps.

CAUTION	**Always disconnect the GPU from the aircraft when not in use. (Aircraft battery may rapidly dischargeor damaged when GPU is connected but not in operation)**

17.2.8 De-icing – no spray zones

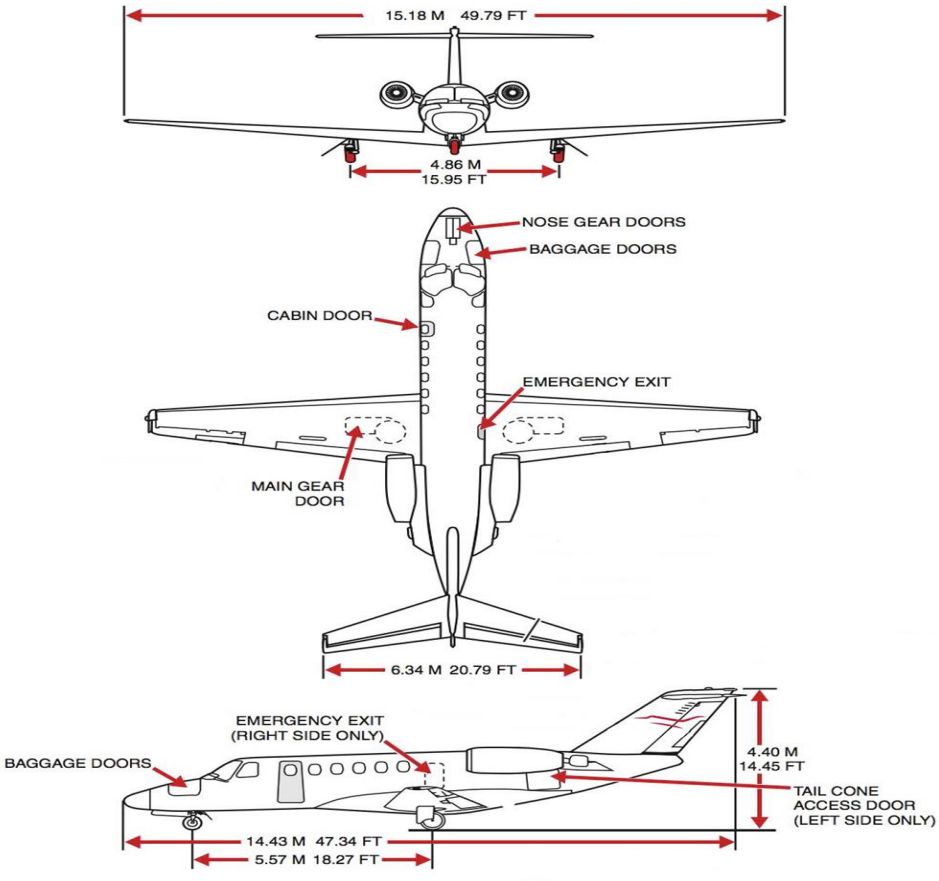


17.2.9 **Engine Covers**

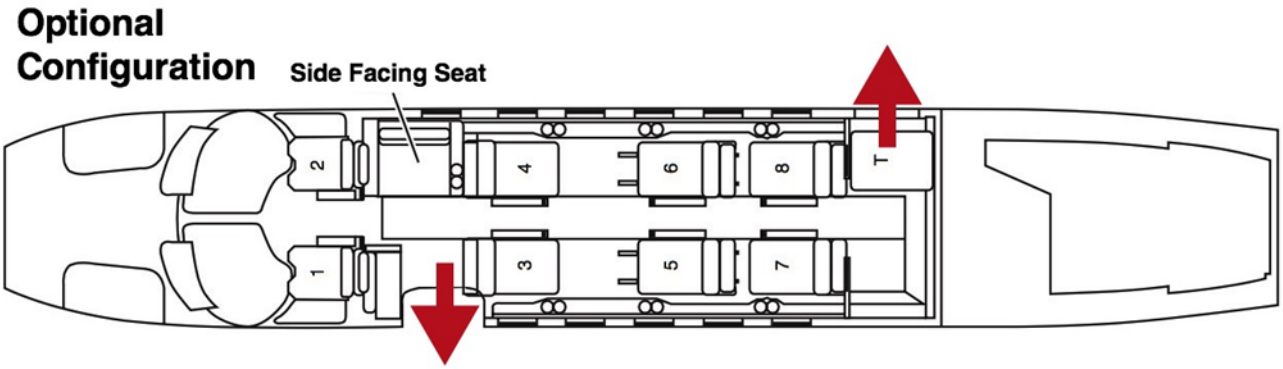
The engine covers are manufactured to be placed over the engine and protect it from damage. They should be placed whenever possible.

17.3 AIRCRAFT PRESENTATION – CESSNA CITATION CJ3 (C525B)

17.3.1 **AIRCRAFT DIMENSIONS**

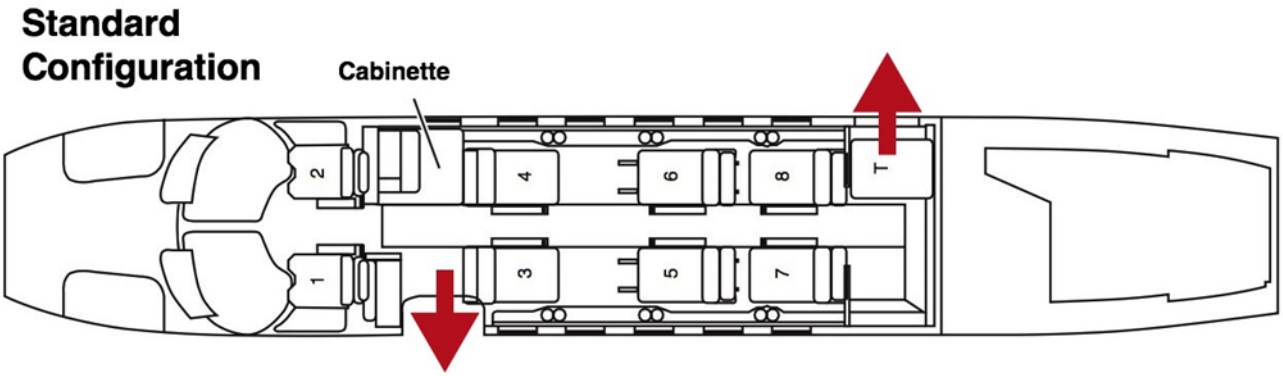


17.3.2 DOORS & CABIN & INTERIOR DIMENSIONS



Cabin Dimensions

Height: 1.42m - 4' 8"
Width: 1.45m - 4' 9"
Length: 4.29m - 14' 1"

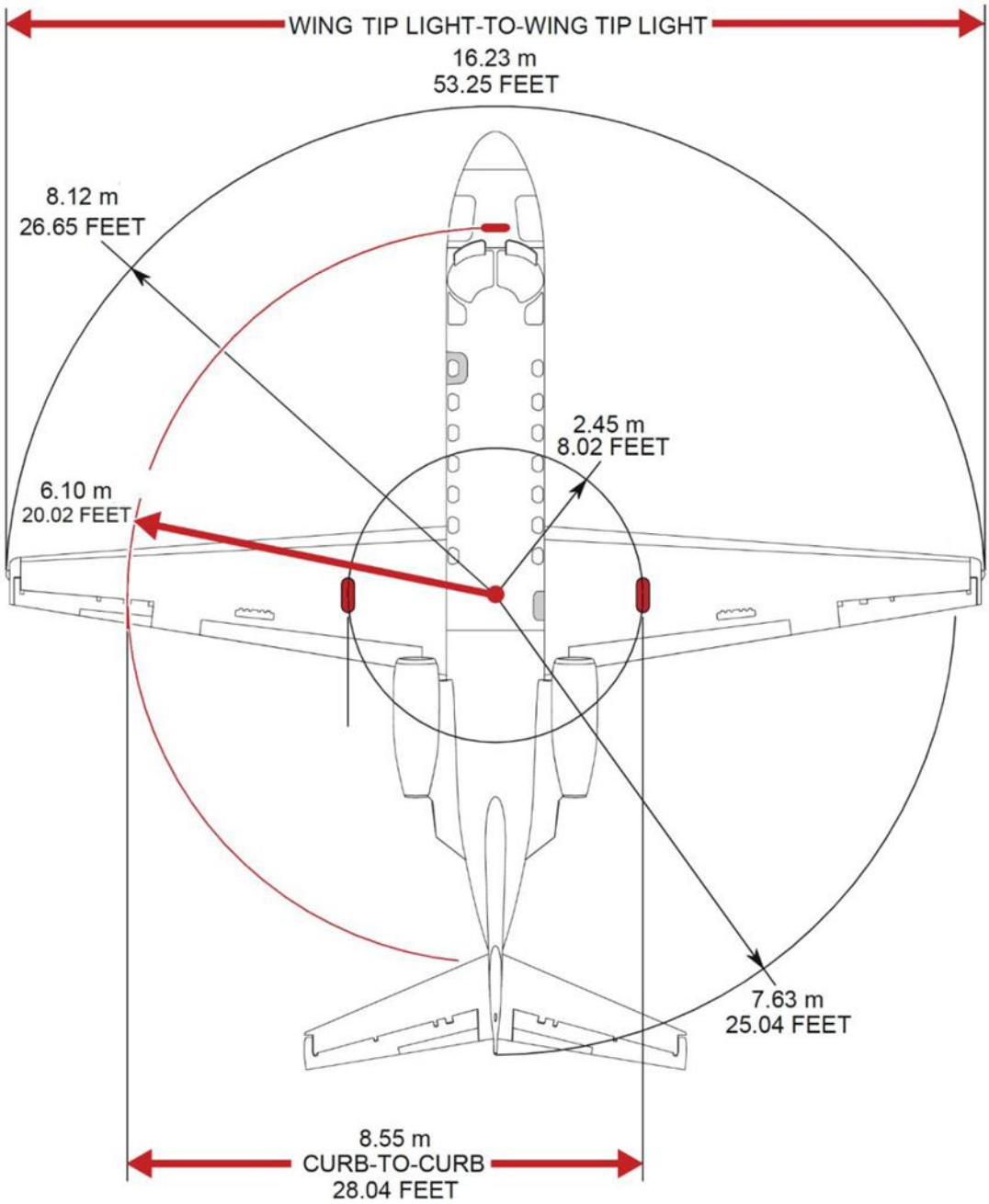


The entrance door is located on the forward left- hand side of the fuselage.

The entrance door opens outboard and is held open by a mechanical "pull to release" latch.

The latch release is located in the interior of the cabin on the forward edge of the door opening, next to the light switch. This latch release must be pulled before the door can be closed.
The exterior handle can be secured with a key lock for security.

17.3.3 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS



17.3.4 NOSE GEAR TOWING & PUSHBACK

Towing instructions and safety guidelines/warnings in "GOM/A 4.13" should also be consulted and applied.
The airplane can be towed with a yoke-type towbar attached to the nose wheel. The airplane also can be towed by the nose wheel held on the platform of an electric towbarless tow vehicle.
Do not turn the nose gear more than its turn limit. If you do, the nose gear turn angle will break the stop bolts on the top of the trunnion.

1) When the airplane is towed, the vehicle operator must make sure that they do not turn the nose gear more than its limits.
2) Steering is done with the towbar or the towbarless vehicle when the airplane is towed.

An approved person must be in the airplane during the tow operation to be prepared for dangerous conditions.

Put personnel to walk with the wing and/or the tail to make sure that there is sufficient clearance between the airplane and adjacent equipment and structures.

TOWBAR TOWING

- Make sure there is sufficient weight forward of the centre of gravity.
- Add weight or take away weight as necessary to adjust the centre of gravity for interior configurations or a defueled airplane.
- Do not turn the nose gear more than an angle of 95 degrees to the right or to the left side of centre. A nose gear that goes beyond the tow stop (95-degree limit) will break the bolts that attach the steering gear assembly to the cylinder.
- Do not move the airplane within 15 minutes after the gyros are shut down. This can cause damage to the gyros.
- Make sure the recommended towbar is used. Make sure the towbar is in good condition, do a periodic inspection of the towbar for cracks and condition.
- Note: The airplane can be towed with the control locks engaged. When the control locks are engaged, do not turn the nose wheel more than 60 degrees to prevent unnecessary loads on the control system. If a turn angle of more than 60 degrees is needed, release the control lock.
-

1) Put the towbar at the nose wheel and insert the towbar into the nose wheel axle.
2) Engage the towbar locking handle.
3) Connect the towbar to the tow vehicle.
4) Put an approved person in the pilot's seat.
5) Disengage the control lock.
6) Disengage the parking brake.
7) Make sure the wheel chocks, static ground cables, and mooring ropes are removed.
8) Put personnel at the wing and/or tail to walk and look for sufficient clearance between the airplane and adjacent equipment or structures.
9) Tow the airplane and make smooth starts and stops during the procedure.
10) When the tow operation is complete, make sure these steps are done as follows:

a) Put the nose wheel to the centre position.
b) Engage the parking brake.
c) Engage the lock controls.
d) Put the chocks in position at the wheels.
e) Connect the static ground cables.
f) Remove the towbar from the airplane.

TOWBARLESS TOWING, WITH ELECTRIC VEHICLE

- Make sure there is sufficient weight forward of the centre of gravity.
- Add weight or take away weight as necessary to adjust the centre of gravity for interior configurations or a defueled airplane.
- Do not turn the nose gear more than an angle of 95 degrees to the right or to the left side of centre. A nose gear that goes beyond the tow stop (95-degree limit) will break the bolts that attach the steering gear assembly to the cylinder.
- Do not move the airplane within 15 minutes after the gyros are shut down. This can cause damage to the gyros.
- Make sure the recommended electric towbarless vehicle is used.
- Note: The airplane can be towed with the control locks engaged. When the control locks are engaged do not turn the nose wheel more than 60 degrees to prevent unnecessary loads on the control system. If a turn angle of more than 60 degrees is needed, release the control lock.

1) Wind a winch-strap around the nose gear strut just above the fork and the electric towbarless vehicle.
2) Put an approved person in the pilot's seat.
3) Disengage the control locks.

4) Disengage the parking brake.
5) Make sure the wheel chocks, static ground cables, and mooring ropes are removed.
6) Put personnel at the wing and/or tail to walk and airplane and adjacent equipment or structures.

- Make sure the tail stand is removed before the nose is lifted.

1) Lift the nose gear into the electric towbarless tow vehicle.
2) Tow the airplane and make smooth starts and stops with the tow vehicle.
3) When the tow operation is complete, make sure the steps are done as follows:
   a. Put the nose wheel to the centre position.
   b. Engage the parking brake.
   c. Engage the lock controls.
   d. Put the chocks in position at the wheels.
   e. Connect the static ground cables.
   f. Remove the towbar from the airplane.

CONTROL LOCK SYSTEM
The nose wheel steering and the rudder are connected through the rudder pedal linkage. The airplane must not be towed with the locks engaged. To do so can damage the steering system.

For Cessna 525B aircraft crews will apply the procedure to LOCK the Gust Locks when the airplane has to be secured. As a habit crews will lock the controls with the control locking mechanism. This will certainly be applied for an overnight or when the airplane has to stay outside for a couple of hours in adverse & windy conditions.

When towing the aircraft with Gust Locks locked there is a limit of 60° to the nose wheel movement. Towing with “tiller” equipment:

- When using “tiller” equipment nose wheel deflection is nearly non-existent and therefore no damage could happen even with Gust Locks locked.

- Towing with tow-bars:

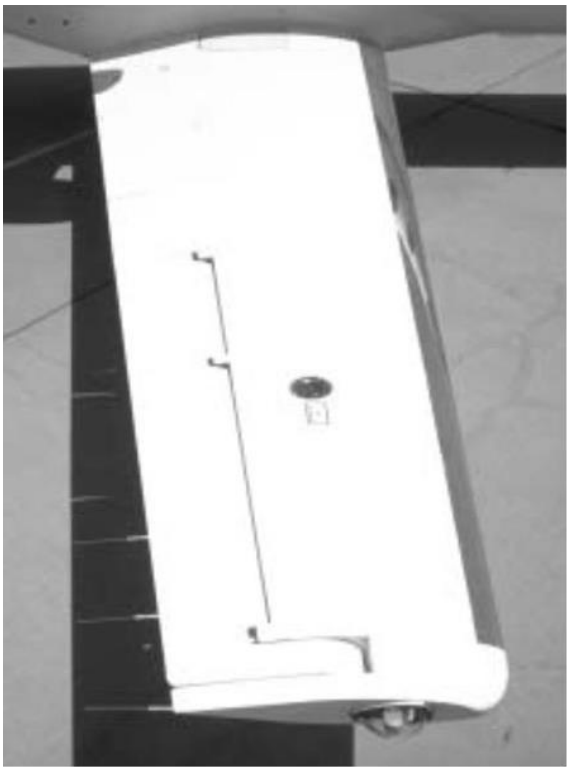
- When using tow-bars nose wheel deflection is limited to 60° and this should be scrupulously respected in order to avoid serious aircraft damage.

17.3.5 Refuelling – Servicing

The “wet-wing” fuel tank in each wing is an integral part of the wing structure, sealed to contain fuel. Each tank includes all the wing area forward of the rear spar and aft of the front spar, except for the main gear wheel well.

Each wing has one, identical, flush-mounted fuel filler assembly located on the upper surface near the wingtip. The filler assembly consists of an adapter, a military-type cap, and a chain attached to the cap that is secured to a flat metal tap halfway down the inside of the filler neck. The full mark is visibly stamped on the metal tab. Fuel is not to be loaded above the full mark.

Each cap is recessed with flush-fitting tabs and is marked to indicate open and closed positions. To remove the cap, lift the tab and rotate counter-clockwise. The tab should be down and aft when properly fastened.



Fuel Port Assemblies

Fuel Filler Cap

Fuel servicing includes procedures necessary for fuelling, and procedures used to check the fuel for contamination or condensation. The fuel is serviced through the flush-type cap on the outboard section of either wing.

REFUEL PROCEDURES

- **Perform the refuel procedures in an area where the fire equipment can move freely.**
- **Make sure**
- **that the fuel supply unit is grounded and that the ground to airplane is connected.**

1) Connect the fuelling nozzle ground to the airplane grounding receptacle on the lower surface of the wing outboard of the filler cap.
2) Put a protective pad on the wing adjacent to the fuel filler and remove the filler cap.

Note: Because of the position of the key holes, locks can freeze on airplanes with locking-type filler caps. The usual technique is to apply heat to the key before it is inserted into the lock. However, if you put jet fuel, or anti-ice spray or liquid into the lock during inclement weather, it can help to decrease the number of times that the lock freezes.

3) Fuel Tanks.

CAUTION	**When you use this procedure to fill the tank, do not put more pressure on the filler inlet screen than is necessary to keep the nozzle against the screen.**

4) To get the maximum fill rate, put the fuelling nozzle opening against the screen at the filler inlet.
5) Remove the fuelling nozzle.
6) Remove the protective pad.
7) Disconnect the fuelling nozzle ground.

8) Make sure that the fuel filler cap is tight.
9) Install the fuel filler cap.

Aircraft Grounding/Bonding

One approved grounding point is installed unde

Safety Precautions

10) Connect the static ground cable between a known good ground point and the airplane.
11) Ground the equipment used to refuel and defuel the airplane (vehicle or fuel hydrant equipment) to the airplane with approved grounding cable(s). Make sure that the equipment is grounded to a known good ground point. Use a grounding cable and ground the airplane to a known good static ground. Ground the fuel nozzle to an approved ground near the fuel filler.
    (a) Ground the airplane first.
    (b) Ground the vehicle (or hose cart) to the same ground as the airplane.
    (c) Bond the vehicle (or hose cart) to the airplane.
    (d) Bond the refuel nozzle to the airplane.
12) Make sure that the fire-fighting equipment is put in position and immediately available.
13) Do not put on clothing that can cause static electricity.
14) Do not put metal taps on your shoes.
15) Put the airplane in an approved area to do the fuel servicing.
16) Do not operate high wattage, pulse transmitting avionic equipment near the area during the fuel servicing.

Note: Nylon or synthetic fabrics can cause static electricity.

17.3.6 **WASTE SYSTEM - SERVICING**

The flush-type toilet reservoirs must be serviced after each flight, when the liquid level becomes too low to operate correctly, or when the liquid looks like it has an incorrect chemical balance.

An anti-freeze solution that contains ethylene glycol and an anti-foam agent can be added to the flush liquid to make sure the recirculating system of the flush-type toilet operates correctly during conditions that could cause the fluid to freeze.

17.3.6.1.1.1 Remove & Clean the Flush-Type Toilet.

1) Open the access door at the bottom of the toilet structure.
2) Push the knife valve to the fully closed position.
3) Unlock the disconnect lock ring.
4) Disconnect the hose coupling from the quick-disconnect.
5) Insert the plug into the hose disconnect.

6) Push the two Pres-Loc fasteners that attach the tank to toilet assembly.
7) Pull the tank out and away from the slide plate assembly.
8) Discard the tank contents.
   (a) Hold the tank upside-down over a sewer or toilet.
   (b) Pull the knife valve actuator handle, open the valve and let the tank drain.
9) Rinse the tank to remove all material from inside the tank.
   (a) Fill the tank until it is one-half full with water.
   (b) Close the knife valve and shake tank vigorously.
   (c) Hold the tank upside-down over a sewer or toilet.
   (d) Pull the knife valve actuator handle, open the valve and let the tank drain.
   (e) Complete the procedure again and again until the tank is clean.
10) Use a cloth wet with clear water and disinfectant to clean the exterior surfaces of the tank.

Note: Commercial detergents and disinfectants can be included in the rinse water if needed, but, do not use these materials in the tank pre-charge.

Pre-Charge & Install the Tank

1) Fill the tank with a mixture of 2 quarts (1.9 L) of water and 3 ounces (88 ml) of Monogram DG-19 chemical.
2) Insert the tank slides on each side of the knife valve into the slide plate assembly on the bottom of the toilet structure.
3) Push the tank into position in the toilet assembly.
4) Push two Pres-Loc fasteners in to the first detent to hold the tank in the toilet structure.
5) Remove the plug from the flush hose quick-disconnect.
6) Connect the hose coupling to the quick-disconnect.
7) Lock the disconnect ring into position.
8) Pull the knife valve actuator to fully open the valve.
9) Lift the toilet seat and shroud assembly off the top of the toilet and wipe with cloth moistened with clear water and disinfectant.
10) Use a cloth moistened with water and disinfectant to clean the toilet bowl and adjacent area.
11) Close the access door.

Note: Ethylene glycol base antifreeze that has an anti-foam agent can be added to the flush fluid to make sure the toilet recirculation system operation during freezing weather.

17.3.7 POTABLE WATER - SERVICING

Feature not available on this aircraft type.

17.3.8 EXTERNAL POWER - GPU – CONNECTIONS

A GPU can be connected to the aircraft DC system through a receptacle located in the fuselage on the left tail cone.

A GPU providing a maximum of 29VDC may be used. Before connecting the GPU GHA/FBO Handling Staff will ensure that the voltage of the GPU is regulated to 28-29 volts, the amperage output between 800 and 1100 amps.

The GPU connection is located on the left hand side of the aircraft, positioned right of the tail cone access door under the elevator.

Note: Normal starter current draw is approximately 1,000 amperes at peak. External power units with variable maximum current shutoff should be set to 1,100 amperes. Use of external power sources with voltage in excess of 29VDC or current in excess of 1,100 amperes may damage the starter.

Always disconnect the GPU from the aircraft when not in use. (Aircraft battery may rapidly discharge or damaged when GPU is connected but not in operation)

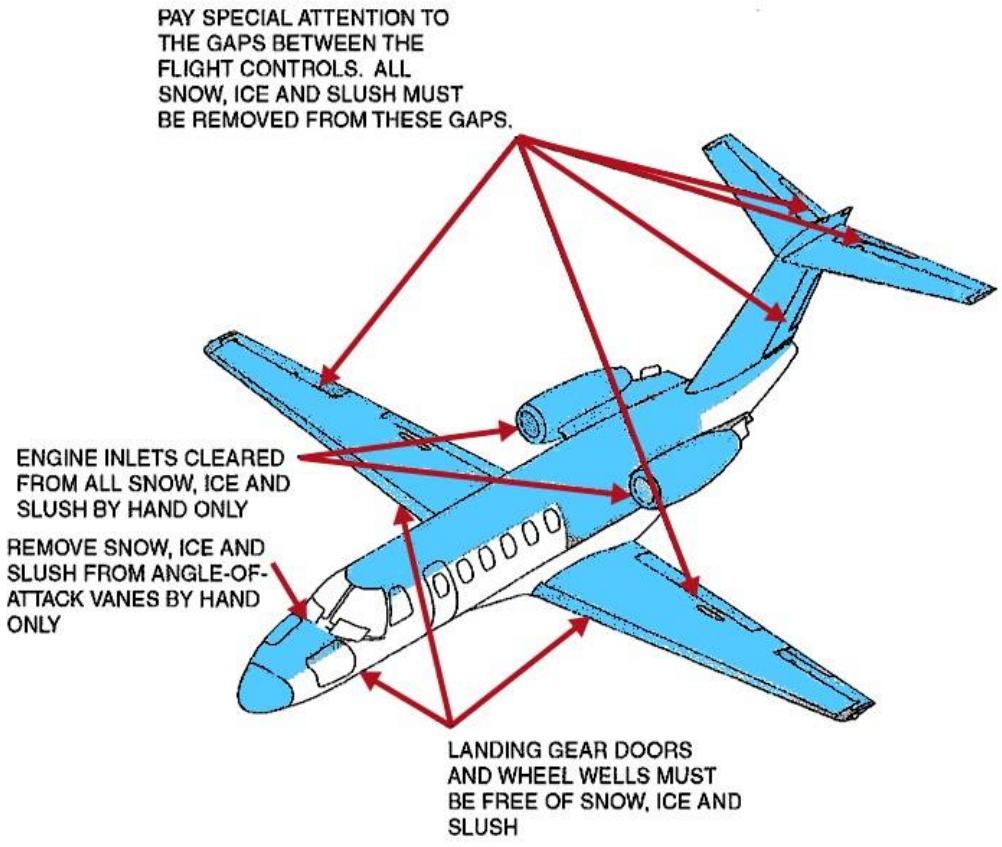
17.3.9 DE-ICING - SPRAY ZONES

The first area to be De/Anti-Iced should be visible from the cabin/cockpit and should be used to provide a conservative estimate for unseen areas of the airplane before departure/take-off.

Aircraft De-Icing

MINIMUM DIRECT SPRAY AREAS: ENGINE INLETS, ENGINE EXHAUST, RAM AIR INLETS, BRAKES, PITOT HEADS, STATIC PORTS, WINDSHIELD, CABIN WINDOWS, AND AOA VANES.

NOTE: SHADED AREAS INDICATE ESSENTIAL AREAS TO BE DEICED.

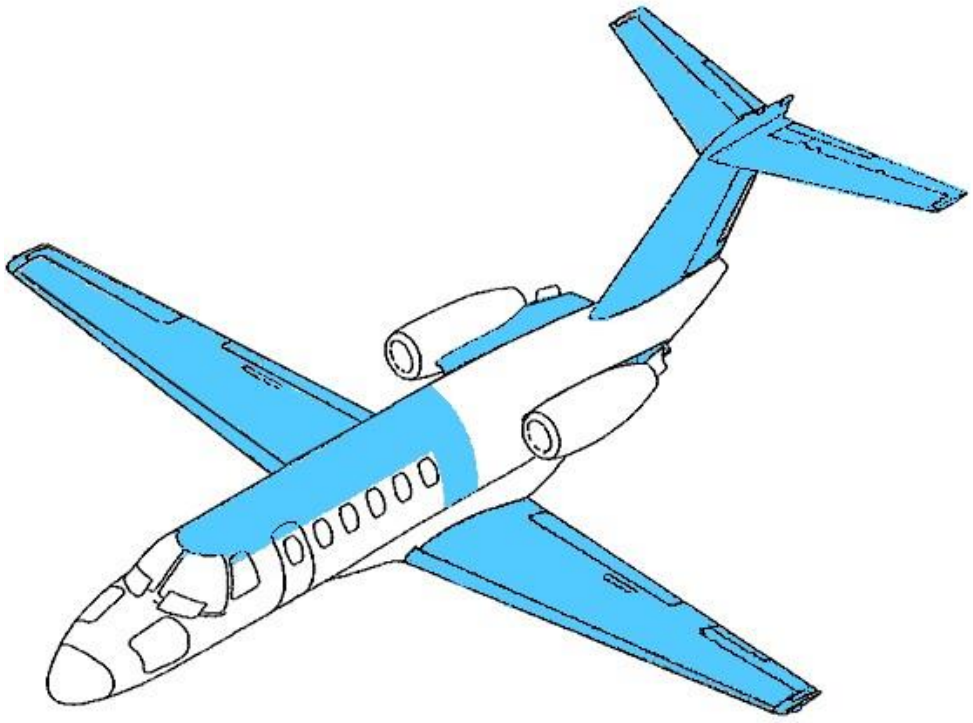


Refer also to generic information on De/Anti-Icing no spray zones in "GOM/A 8.4"

Aircraft Anti-Icing

MINIMUM DIRECT SPRAY AREAS:	ENGINE INLETS, ENGINE EXHAUST, RAM AIR INLETS, BRAKES, PITOT HEADS, STATIC PORTS, WINDSHIELD, CABIN WINDOWS, AND AOA VANES.

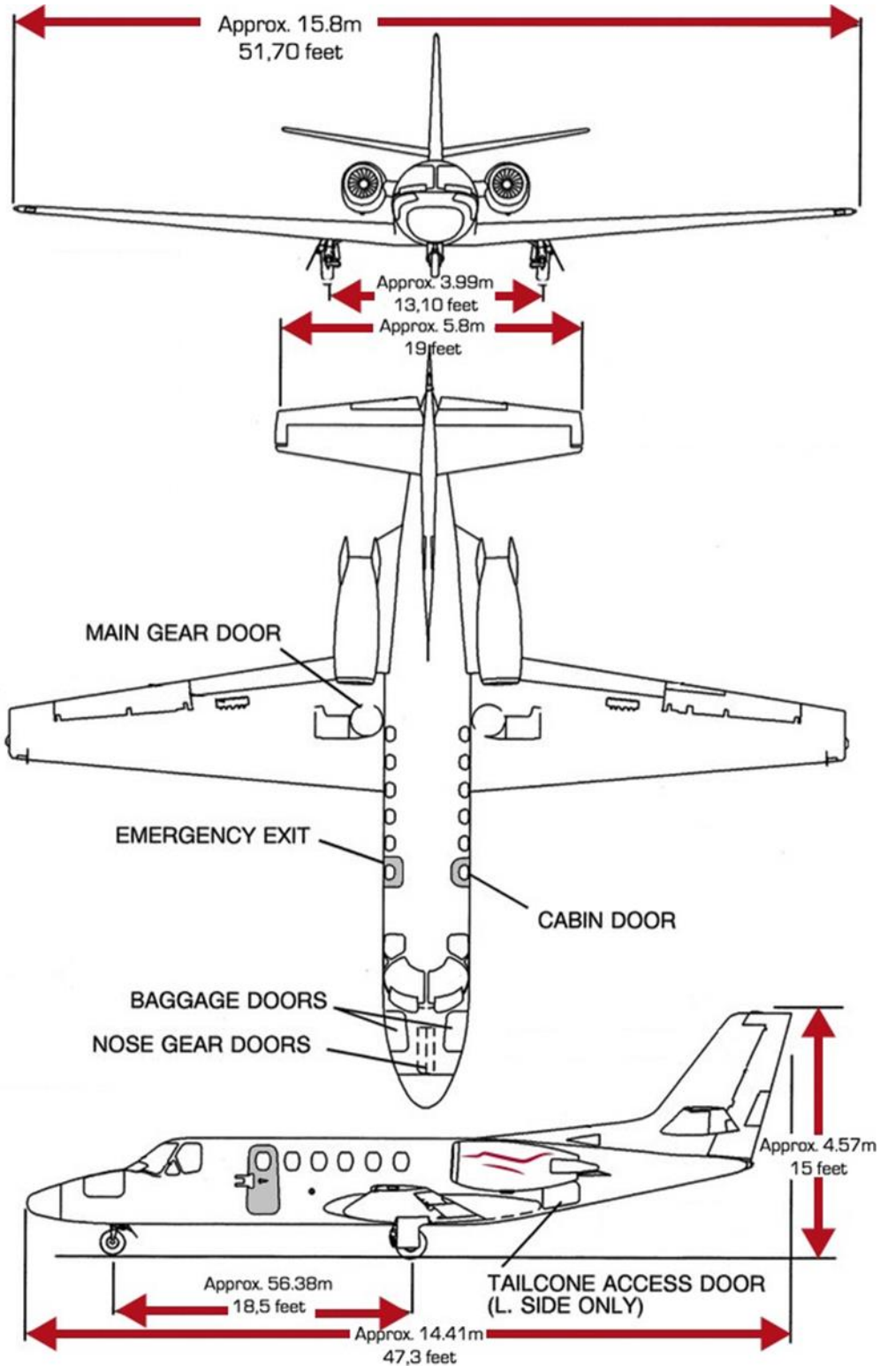
NOTE: SHADED AREAS INDICATE AREAS WHERE ANTI-ICE FLUID IS APPLIED. UPPER FUSELAGE IS ANTI-ICED TO PRECLUDE ICE FORMATION WHICH COULD BE INGESTED INTO ENGINE INLETS.



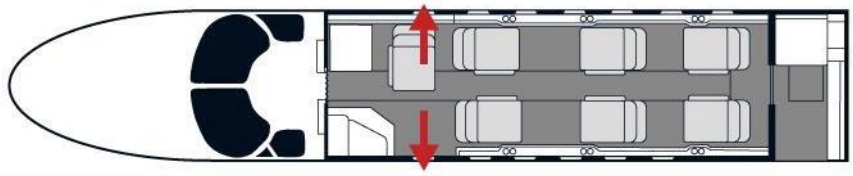
Refer also to generic information on De/Anti-Icing no spray zones in "GOM/A 8.4"

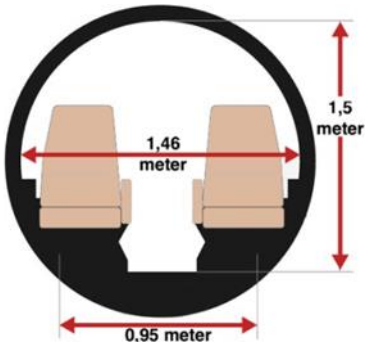
17.4 AIRCRAFT PRESENTATION – CESSNA CITATION BRAVO (C550)

17.4.1 AIRCRAFT DIMENSIONS



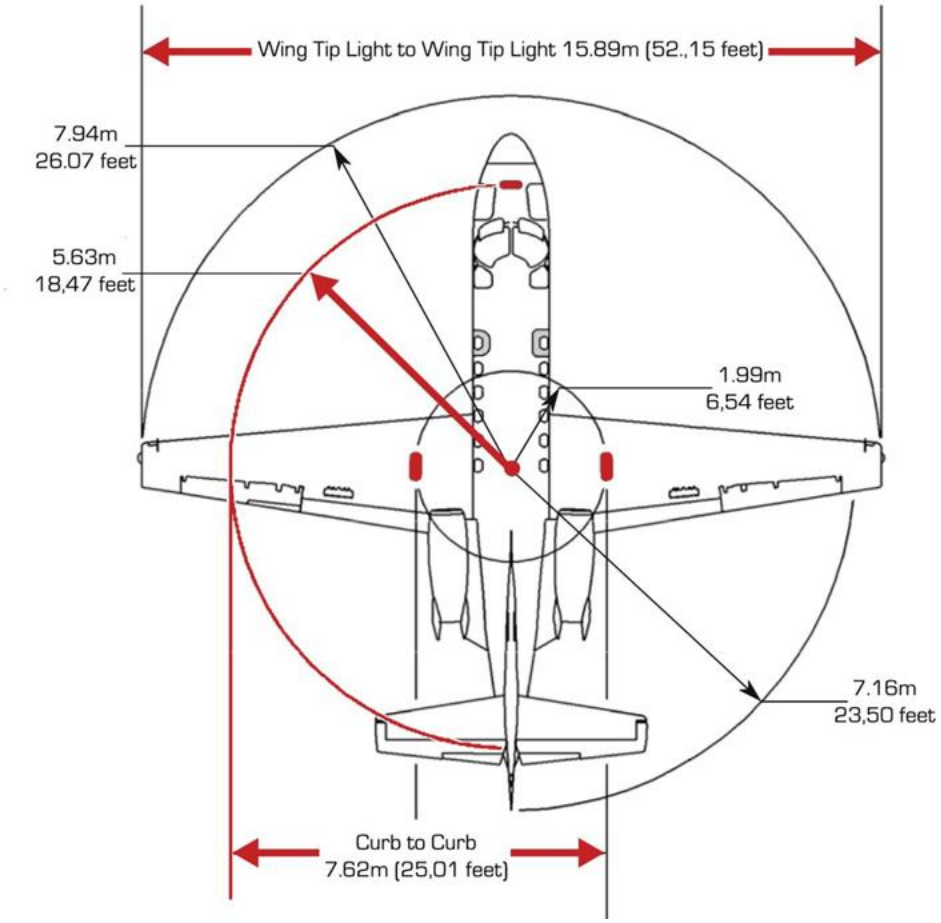
17.5 DOORS & CABIN & INTERIOR DIMENSIONS





The entrance door is located on the forward left- hand side of the fuselage. The entrance door opens outboard and is held open by a mechanical “pull to release” latch. The latch release is located in the interior of the cabin on the forward edge of the door opening, next to the light switch. This latch release must be pulled before the door can be closed. The exterior handle can be secured with a key lock for security.

17.5.1 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS



17.5.2 NOSE GEAR TOWING & PUSHBACK

GENERAL

	**Towing instructions and safety guidelines/warnings in "GOM/A 4.13" should also be consulted and applied.**

Towing of airplane is normally accomplished through nose gear axle, using a yoke-type towbar and a tow vehicle or by an electric towbarless tow vehicle.

1) During the towing operation, the vehicle operator must ensure that the turning limits of the nose gear are not exceeded. Exceeding the turning angle will shear the steering gear attaching bolts.
2) During nose gear wheel towing, all turning is accomplished through the towbar or towbarless tow vehicle.
3) If the airplane is off the runway or taxiway in sand, soft ground or mud, towing may be accomplished with the aid of cables or ropes attached to each main gear towing adapter. When towing is accomplished by attaching cables or ropes to the main landing gear assemblies, steering is accomplished through the rudder pedals.

A qualified person may be stationed in the airplane during towing operations to be prepared for hazardous conditions as follows:

1) Towbar breaks or becomes detached between the airplane and the towing vehicle.
2) In congested areas, station wing and/or tail walkers to ensure adequate clearance between airplane and adjacent equipment and structures.

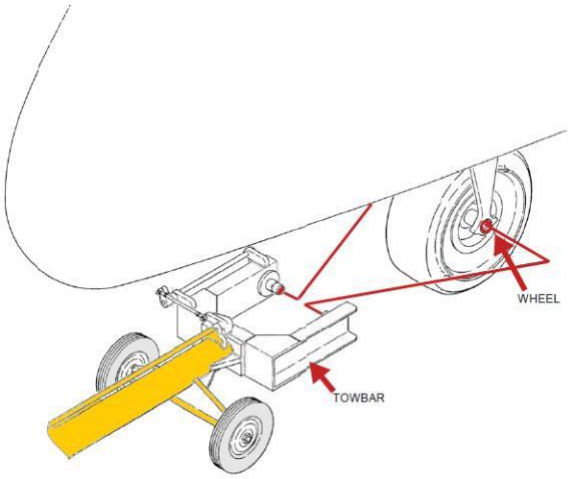
Towbar Towing

	**The maximum nose gear towing turning angle limit is 95 degrees either side of centre. Nose gear forced beyond the towing stop (95-degree limit) will shear bolts attaching steering gear assembly to cylinder.** **Do not move the airplane within 15 minutes after the gyros have been shut down, or damage to the gyros may occur.** **When towing the airplane, ensure the recommended towbar is used. Also, to ensure integrity of the towbar for operational use, perform a periodic inspection of the towbar for cracks and condition.**

Place towbar at nose wheel; insert towbar into nose wheel axle and secure towbar locking handle.
Connect towbar to towing vehicle.
Station person in pilot's seat.

Note: The airplane may be towed without entering the airplane if the parking brake is not set. Towing can be accomplished with the control locks engaged. When towing the airplane with the control locks engaged, to prevent unnecessary loads on the control system, limits the nose wheel turning angle to approximately 60 degrees. When extreme turning angles are required, release the control lock system.

Disengage control lock.
Disengage parking brake.
Ensure that wheel chocks, static ground cables and mooring ropes are removed.
If area is congested, station wing and/or tail walkers to check clearance between airplane and adjacent equipment or structures.
Tow airplane, making smooth starts and stops with towing vehicle.
When towing operation is complete, centre nose wheel, engage parking brake, lock controls, chock wheels, connect static ground cables and remove towbar from airplane.



Towbarless Towing

CAUTION	· **Airplanes which have had interiors and/or accessories removed, have been defueled and/or have particular configurations (e.g. Aft vapour cycle system) can be susceptible to an aft cg condition. This condition could cause tail to come down, causing structural damage to airplane. Approximately 80 to 100 pounds (36 to 45 kg) of ballast weight should be added to prevent such an occurrence.** · **The maximum nose gear towing turning angle limit is 95 degrees either side of centre. Nose gear forced beyond the towing stop (95-degree limit) will shear bolts attaching steering gear assembly to cylinder.** · **Do not move the airplane within 15 minutes after the gyros have been shut down, or damage to the gyros may occur. When towing airplane, ensure recommended electric towbarless vehicle is used.**

1) Wrap winch-strap around nose gear strut just above fork.
2) Station person in pilot's seat.

Note: The airplane may be towed without entering the airplane if the parking brake is not set. Towing can be accomplished with the control locks engaged. When towing the airplane with the control locks engaged, to prevent unnecessary loads on the control system, limit the nose wheel turning angle to approximately 60 degrees. When extreme turning angles are required, release the control lock system.

3) Disengage control lock.
4) Disengage parking brake.
5) Ensure that wheel chocks, static ground cables and mooring ropes are removed.
6) If area is congested, station wing and/or tail walkers to check clearance between airplane and adjacent equipment or structures.

CAUTION	· **Ensure tail stand is removed before lifting nose or winching airplane.**

7) Winch nose gear into towbarless tow vehicle.
8) Tow airplane, making smooth starts and stops with towing vehicle.
9) When towing operation is complete, centre nose wheel, remove winch strap, remove nose gear from cradle, engage parking brake, lock controls, chock wheels, and connect static ground cables.

Note: Setting the parking brake is optional. If the parking brake is not set, the airplane can be relocated without entering airplane.

Cold Weather Towing

	· **Dry snow provides better traction than wet snow. Wet snow thaws and refreezes, causing hazardous driving conditions while towing airplanes. Heavy traffic and the exhaust from parked vehicles can warm and thaw ice and snow on the ramps and cause the ramp surface to become wet and slippery.** · **Brakes applied suddenly or too hard may cause the towing vehicle to jack-knife. On hard packed snow, apply brakes until the wheels start to slide, then release them slightly to reduce speed and maintain control of the vehicle.** · **Use proper towing vehicle with chains installed, if required, and proper towbar or towbarless vehicle. Make gradual starts and turns, steering smoothly. Traction can be reduced with fast starts, which may cause towing vehicle wheels to spin.** · **On a slick ramp, position the airplane so it will not be required to make sharp turns during taxi. Position airplane directly on the taxi way to minimize turns and allow lower power settings which reduces blowing snow and foreign object damage.**

During winter months and cold weather operations, the following concerns and safety requirements that maintenance personnel and ground support personnel must be aware of:

1) Reduced visibility;
2) Poor traction; and
3) Increased stopping distance.

TOWBAR TOWING

	· **Ensure all external equipment is disconnected from the airplane. Do not push or pull on control surfaces when manoeuvring airplane.** · **Do not exceed 50 degrees turning limitation.** · **Using chocks on ice may cause them to slide. Ensure the chocks are in position and are tied together.** · **Do not set parking brake during cold weather, as accumulated moisture may freeze brakes.**

1) Insert towbar into nose wheel axle.
2) Station person in pilot's seat to assist with braking of airplane.

Note: Chocks may be frozen to the ground. If chocks are frozen to the ground ensure that the wheels are not frozen to the ground.

3) Remove wheel chocks, static ground cables and mooring cables.
4) Ensure the wheels are not frozen to the parking surface.
5) Release rudder gust lock.
6) If area is congested, station wing walkers and tail walkers around the airplane to ensure adequate clearance between airplanes and adjacent equipment or structures.
7) When towing is complete, centre nose wheel, chock wheels and apply gust locks as required.
8) Disconnect towbar

Towbarless Towing

	· **Ensure all external equipment is disconnected from the airplane. Do not push or pull on control surfaces when manoeuvring airplane.** · **Do not exceed 50 degrees turning limitation.** · **Using chocks on ice may cause them to slide. Ensure the chocks are in position and are tied together.** · **Do not set parking brake during cold weather, as accumulated moisture may freeze brakes.**

1) Remove wheel chocks, static ground cables and mooring cables
2) Release control lock.
3) If area is congested, station wing walkers and tail walkers around airplane to ensure adequate clearance between airplanes and adjacent equipment or structures.
4) Attach winch strap, remove tail stand and winch nose wheel into towbarless cradle.
5) When towing is complete, centre nose wheel, chock wheels and lock controls.
6)

Control Lock System

The nose wheel steering and the rudder are connected through the rudder pedal linkage. The airplane must not be towed with the locks engaged. To do so can damage the steering system.

For Cessna 550 aircraft crews will apply the procedure to LOCK the Gust Locks when the airplane has to be secured. As a habit crews will lock the controls with the control locking mechanism. This will certainly be applied for an overnight or when the airplane has to stay outside for a couple of hours in adverse & windy conditions.

When towing the aircraft with Gust Locks locked there is a limit of 60° to the nose wheel movement. Towing with "tiller" equipment:

- When using "tiller" equipment nose wheel deflection is nearly non-existent and therefore no damage could happen even with Gust Locks locked.

Towing with tow-bars:

- When using tow-bars nose wheel deflection is limited to 60° and this should be scrupulously respected in order to avoid serious aircraft damage.

17.5.3 REFUELLING - SERVICING

Over-wing Tank Filling Procedures.

1) Connect fuelling nozzle ground to the airplanes grounding receptacle, located on the lower side of the wing outboard of the filler cap.
2) Place a protective pad on the wing adjacent to the fuel filler and remove the filler cap.

Note: Due to the position of the key holes, lock freezing may be encountered on airplanes with locking- type filler caps. Heating the key prior to inserting it in the lock will normally thaw the lock; however, putting jet fuel, anti-ice spray or liquid into the lock during inclement weather can reduce the freezing possibilities.

3) Service as follows:
   a) If the turbine fuel has fuel system icing inhibitor added, fill wing tanks.
   b) If the turbine fuel does not have fuel system icing inhibitor added, select an inhibitor. Refer to Tools and Equipment and add as described by the inhibitor manufacturer or in accordance with Mixing Icing Inhibitor Procedures.
4) Ensure filler cap is secured.
5) Remove fuel nozzle and protective pad; disconnect fuelling nozzle ground and install fuel filler cap.

Aircraft Grounding/Bonding

One approved grounding point is installed under each wingtip, in the middle of the wing.

Ground the fuelling/defueling equipment (vehicle or fuel hydrant equipment) to the airplane with designated grounding cable(s). Ensure fuelling/defueling equipment is grounded to an approved static ground.

Ground the airplane to an approved static ground with grounding cable.

a) Ground airplane.
b) Ground vehicle (or hose cart) to the same ground as the airplane.
c) Bond vehicle (or hose cart) to airplane.
d) Bond refuel nozzle to airplane.

1) Ensure fire-fighting equipment is positioned and immediately available.
2) Do not wear clothing that has a tendency to generate static electricity, such as nylon or synthetic fabrics.
3) Do not wear metal taps on shoes.

4) The airplane should be in a designated fuel loading/unloading area.
5) High-wattage, pulse transmitting avionics equipment shall not be operated in the vicinity of the fuelling/defueling operation.

17.5.4 WASTE SYSTEM - SERVICING

GENERAL

The aft flush-type toilet utilizes a waste container for solid and liquid waste and a liquid reservoir for flushing the bowl assembly.

The flush-type toilet reservoirs should be serviced after each flight; however, they must be serviced when liquid level becomes too low for proper operation or when liquid appears to have incorrect chemical balance.

To ensure flush-type toilet recirculating systems operate properly during freezing conditions, an ethylene-glycol base antifreeze containing anti-foam agent may be added to the flush liquid.

Servicing Flush-Type Toilet

Note: General instructions for servicing are provided on a decal applied to the front side of the removable tank.

Tank Removal

1) Gain access to the toilet tank by opening door on front of seat assembly.
2) Depress the lock ring of the flush hose quick-disconnect coupling located on the right side at the front of the tank top.
3) Drain any residue of flush fluid in the hose by partially disengaging the plug from the quick-disconnect and manipulating the hose to assist drainage.
4) Remove the flush hose from the quick-disconnect. Place hose in the retaining clip located on the underside of the toilet mounting plate.
5) Install the plug attached to the quick-disconnect to seal the coupling.
6) Close the knife valve at the bottom of the toilet bowl by pushing the actuator handle until the valve is fully closed.
7) Press the two Pres-Loc fasteners on each side of the knife valve actuator to unlock the tank.
8) Remove the tank by pulling the recessed carrying handle on the tank top.

Tank Cleaning

1) Dispose of tank contents by holding the tank upside down over a sewer or toilet. Pull the knife valve actuator handle, open the valve and allow the tank to drain.
2) Rinse the tank by filling one-half full with water. Close the knife valve and shake vigorously. Drain tank again; repeat procedure until tank is clean.

Note: Commercial detergents and disinfectants may be included in the rinse water if desired; however, do not include these materials in the tank pre-charge.
Note: Rinse and drain tank several times to ensure tank is thoroughly clean.

3) Wipe the exterior surfaces of tank using a cloth moistened with clear water and disinfectant.

Tank Pre-Charge

1) Charge tank with a mixture of 2 quarts of water and 3 ounces of Monogram DG-19 chemical.

Note: To ensure toilet recirculation system operation during freezing weather, ethylene glycol base antifreeze containing antifoam agent may be added to the flush fluid.

Tank Installation

1) Reinstall tank by inserting the slides located on each side of the knife valve into the slide plate assembly on the bottom of toilet and slide tank into place.

2) Press the two Pres-Loc fasteners to the first detent to secure tank.
3) Remove plug in the flush hose quick disconnect and connect hose coupling to the quick disconnect. Lock the disconnect lock-ring.
4) Pull the knife valve actuator to fully open the valve.
5) Lift toilet seat and shroud assembly from the top of toilet and wipe with cloth moistened with clear water and disinfectant. Wipe the bowl and surrounding area.
6) Check flushing operation of the toilet and check for leaks.
7) Close access door.

17.5.5 POTABLE WATER - SERVICING

Feature not available on this aircraft type.

17.5.6 EXTERNAL POWER - GPU - CONNECTIONS

A GPU can be connected to the aircraft DC system through a receptacle in the fuselage below the left engine nacelle.

Note: Normal starter current draw is approximately 1,000 amperes at peak. External power units with variable maximum current shutoff should be set to 1,100 amperes. Use of external power sources with voltage in excess of 29VDC or current in excess of 1,100 amperes may damage the starter.

CAUTION	**Always disconnect the GPU from the aircraft when not in use. (Aircraft battery may rapidly discharge or damaged when GPU is connected but not in operation)**

17.5.7 DE-ICING - SPRAY ZONES

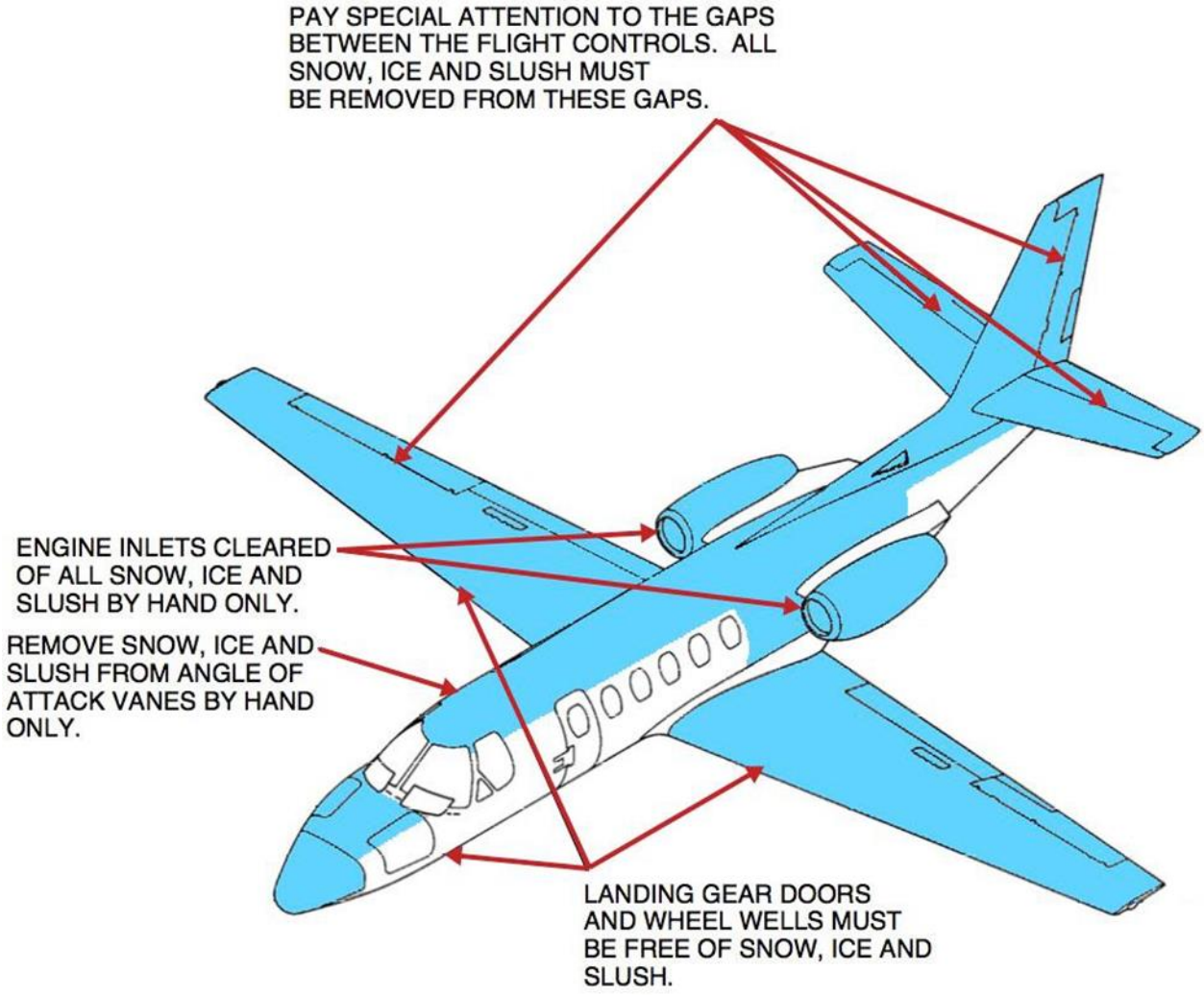
The first area to be De/Anti-Iced should be visible from the cabin/cockpit and should be used to provide a conservative estimate for unseen areas of the airplane before departure/take-off.

SHADED AREAS INDICATE ESSENTIAL AREAS TO BE DEICED

NOTE

AVOID DIRECT SPRAYING OF DEICING FLUID ON/IN THE FOLLOWING AREAS:

ENGINE INLETS	BRAKES	PITOT HEADS
ENGINE EXHAUST	WINDSHIELD	STATIC PORTS
RAM AIR INLETS	CABIN WINDOWS	AOA VANES



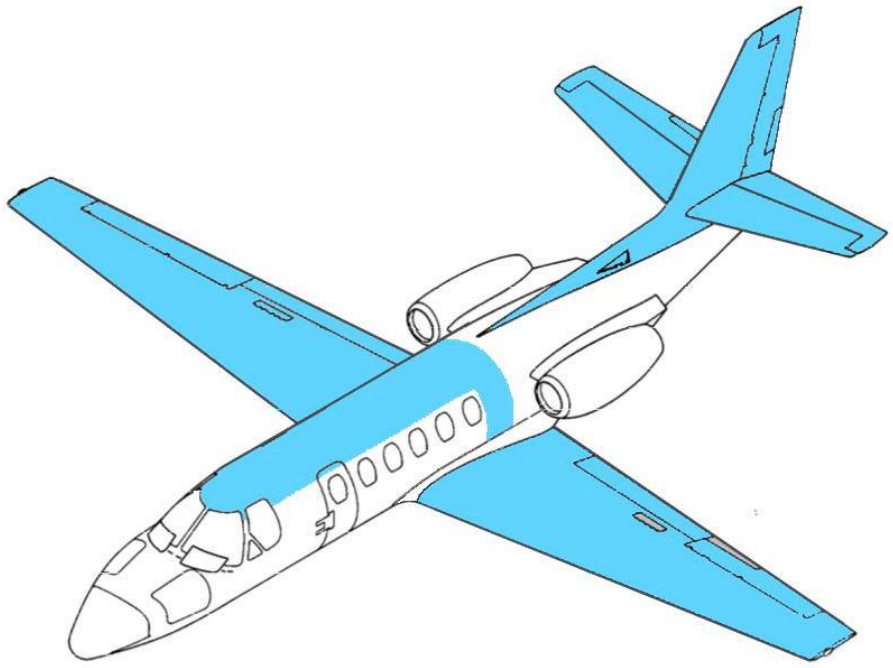
Aircraft Anti-Icing

SHADED AREAS INDICATE ESSENTIAL AREAS TO BE ANTI-ICED

NOTE

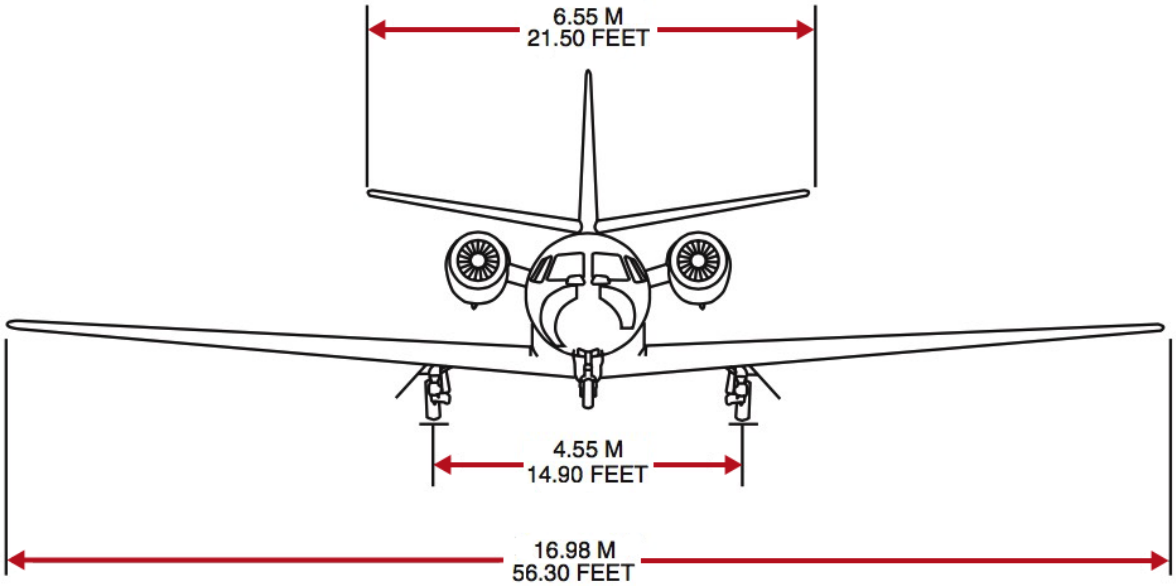
AVOID DIRECT SPRAYING OF ANTI-ICING FLUID ON/IN THE FOLLOWING AREAS:

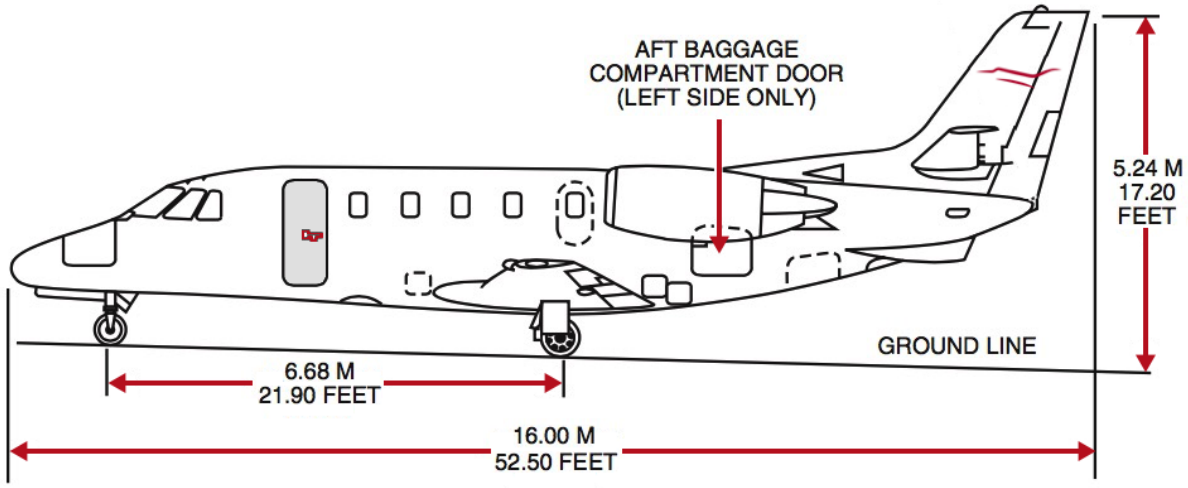
ENGINE INLETS	BRAKES	PITOT HEADS
ENGINE EXHAUST	WINDSHIELD	STATIC PORTS
RAM AIR INLETS	CABIN WINDOWS	AOA VANES



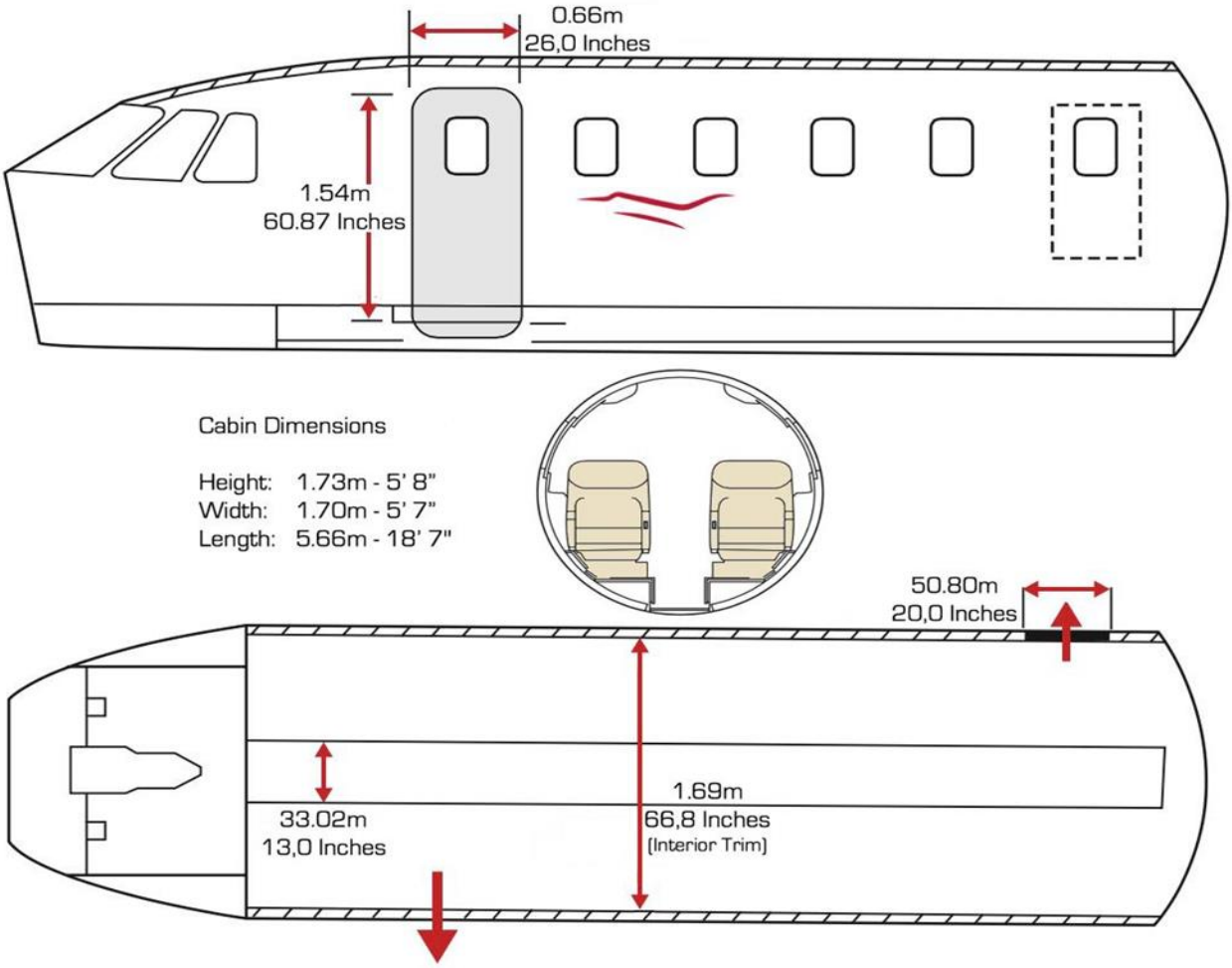
17.6 AIRCRAFT PRESENTATION - CESSNA CITATION EXCEL+ (C560XL+)

17.6.1 Aircraft Dimensions





17.6.2 DOORS & CABIN & INTERIOR DIMENSIONS



A cabin entry door on the left side of the fuselage forward of the wing is a one-piece airstairs door. It is hinged at the bottom and opens down and outward. The door contains solid steps on the interior side. For ease of opening and closing, a cable and spring torque bar counterbalance the door when it is lowered and raised.

The outside door handle is flush-mounted. It can be key locked for cabin security. The handle is pulled outward by the finger hole in the small end. The handle is rotated 90° clockwise to unlatch the door. Rotating the door handle down should release the pre-catch assembly.

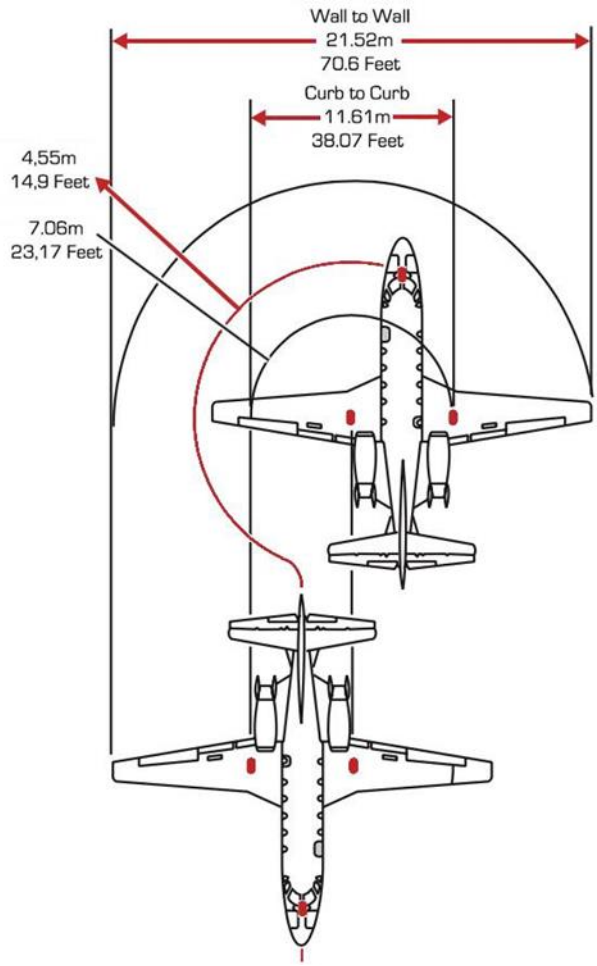
The pre-catch assembly aligns the door latch pins with the doorframe receptacles automatically when closing the door. The pre-catch is normally released when the door handle is rotated to unlock the door. If the pre-catch does not release (door does not open slightly) then complete the following:

- **Outside aircraft**: Depress the small round pre-catch release button on the fuselage directly forward of the door.
- **Inside aircraft**: Pull the pre-catch lever to the right of the door. The door is pulled outward and down. At its lowest point, a foot can be placed on the lower step to push it down further. Pressing down on the handrail locks the door over-centre. Pulling up on the handrail or pulling up on the raising/lowering handle (forward side of door) inside the cabin unlocks the over-centre geometry. This allows the door to be raised. From inside the cabin, the door is pulled tightly closed. Depressing the button on the handle to spring-load it out of the stowed detent releases the inside door handle from the stowed position.

The handrail connects to the raising/lowering handle and extends as the door is lowered. The over-centre locking linkage, the two telescoping support struts, and handrail provide solid support for entering and exiting the cabin via the cabin doorsteps.

WARNING	· **Make sure that there are no objects or personnel on, around or below the passenger before it is moved (opened/closed).**

17.6.3 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS



17.6.4 NOSE GEAR TOWING & PUSHBACK

Towing instructions and safety guidelines/warnings in "GOM/A 4.13" should also be consulted and applied.

TOWBAR TOWING

Note: It is permitted to disconnect the nose gear torque links. The nose wheel then may be turned beyond the black limit marks and eliminate the possibility of damaging the nose gear centring mechanism or steering stops.

Tow the Nose Gear with a Towbar:

1) Attach the towbar to the upper fork buckets on nose landing gear.
2) Connect the towbar to the towing vehicle.

Station a person in the pilot's seat

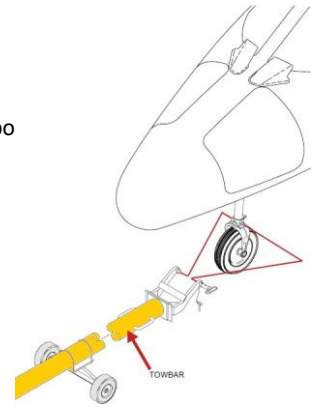
Note: The airplane may be towed without entering the airplane if the parking brake is not set. Towing can be done with the control locks engaged. When towing the airplane with the control locks engaged, to prevent unnecessary loads on the control system, limit the nose wheel turning angle to 60 degrees. When extreme turning angles are necessary, release the control lock system.

1 Make sure that the wheel chocks, tail-stand, static ground cables and mooring ropes are removed.
2 Disengage the parking brake.
3 If the area is congested, station wing and/or tail walkers to keep the clearance between airplane and adjacent equipment or structures.

CAUTION	**Do not turn the nose landing gear wheel more than 90 degrees from centred position, in either direction. Damage to the turning stop will result if the torque links are connected.**

Turn Limitations Table – Towbar Towing	
Condition	Turn Limitation
Torque Links Connected	**90 degrees (If the control lock is not engaged)**
Torque Links Connected	**60 degrees (If the control lock is engaged)**
Torque Links Disconnected	**The nose wheel can be turned more than the 90-degree limit that is stated on the placard. The control lock can be engaged or disengaged.**

1) Tow the airplane. Make smooth starts and stops with the tow vehicle. Refer to the Table abo
2) When the towing operation is done, do the following:
   (a) Engage the parking brake
   (b) Lock the controls
   (c) Chock the wheels
   (d) Connect the static ground cables.
   (e) Remove the towbar from the airplane.
   (f) Connect the nose gear torque links if they were disconnected.



Towbarless Towing

CAUTION	· **Airplanes which have had interiors and/or accessories removed, have been defueled and/or have particular configurations (e.g. Aft vapour cycle system) can be susceptible to an aft cg condition. This condition could cause tail to come down, causing structural damage to airplane. Approximately 80 to 100 pounds (36 to 45 kg) of ballast weight should be added to prevent such an occurrence.** · **The maximum nose gear towing turning angle limit is 95 degrees either side of centre. Nose gear forced beyond the towing stop (95-degree limit) will shear bolts attaching steering gear assembly to cylinder.** · **Do not move the airplane within 15 minutes after the gyros have been shut down, or damage to the gyros may occur. When towing airplane, ensure recommended electric towbarless vehicle is used.**

10) Wrap winch-strap around nose gear strut just above fork.
11) Station person in pilot's seat.

Note: The airplane may be towed without entering the airplane if the parking brake is not set. Towing can be accomplished with the control locks engaged. When towing the airplane with the control locks engaged, to prevent unnecessary loads on the control system, limit the nose wheel turning angle to approximately 60 degrees. When extreme turning angles are required, release the control lock system.

12) Disengage control lock.
13) Disengage parking brake.
14) Ensure that wheel chocks, static ground cables and mooring ropes are removed.
15) If area is congested, station wing and/or tail walkers to check clearance between airplane and adjacent equipment or structures.

	· **Ensure tail stand is removed before lifting nose or winching airplane.**

16) Winch nose gear into towbarless tow vehicle.
17) Tow airplane, making smooth starts and stops with towing vehicle.
18) When towing operation is complete, centre nose wheel, remove winch strap, remove nose gear from cradle, engage parking brake, lock controls, chock wheels, and connect static ground cables.

Note: Setting the parking brake is optional. If the parking brake is not set, the airplane can be relocated without entering airplane.

Cold Weather Towing

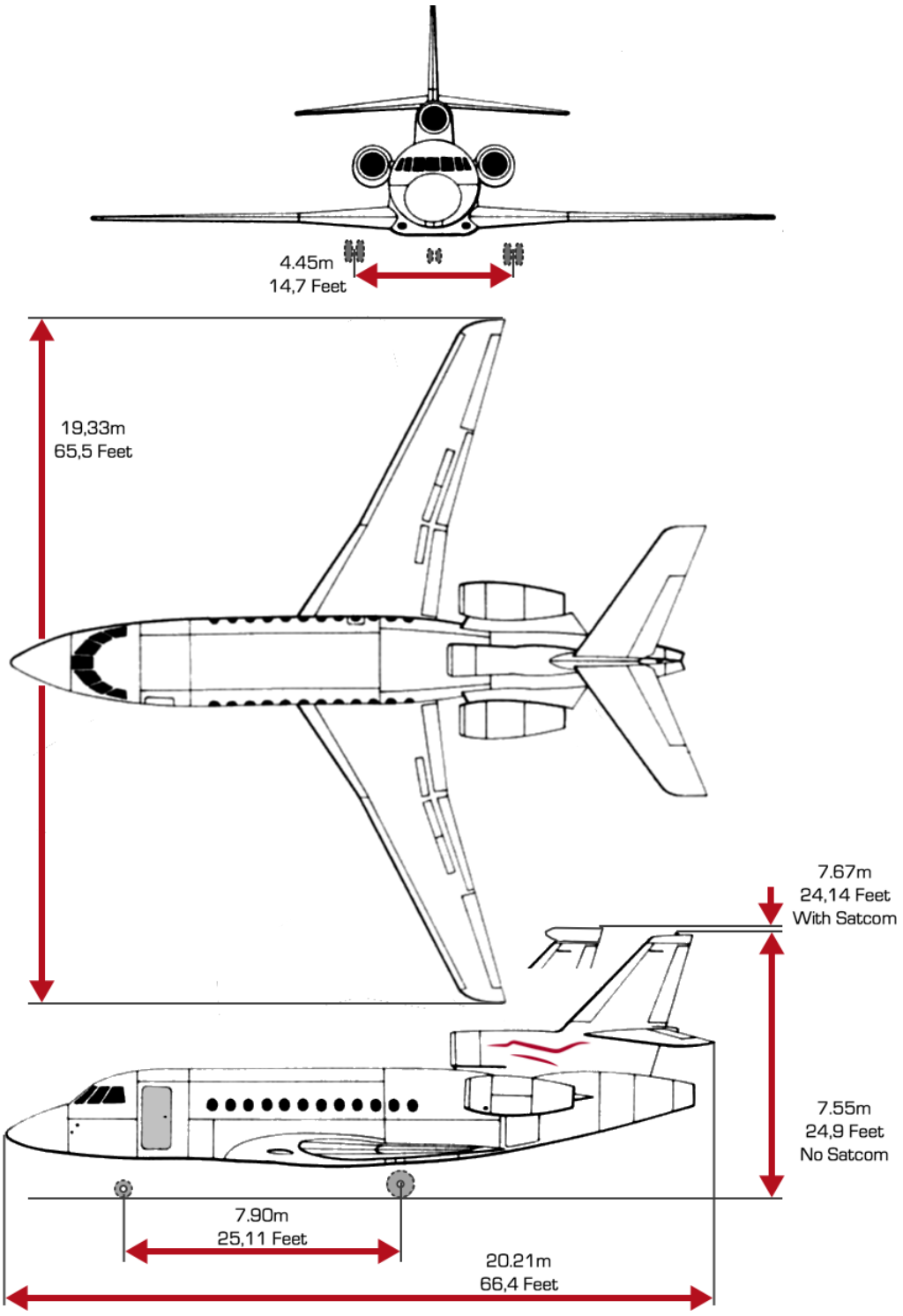
	· **Dry snow provides better traction than wet snow. Wet snow thaws and refreezes, causing hazardous driving conditions while towing airplanes. Heavy traffic and the exhaust from parked vehicles can warm and thaw ice and snow on the ramps and cause the ramp surface to become wet and slippery.** · **Brakes applied suddenly or too hard may cause the towing vehicle to jack-knife. On hard packed snow, apply brakes until the wheels start to slide, then release them slightly to reduce speed and maintain control of the vehicle.** · **Use proper towing vehicle with chains installed, if required, and proper towbar or towbarless vehicle. Make gradual starts and turns, steering smoothly. Traction can be reduced with fast starts, which may cause towing vehicle wheels to spin.** · **On a slick ramp, position the airplane so it will not be required to make sharp turns during taxi. Position airplane directly on the taxi way to minimize turns and allow lower power settings which reduces blowing snow and foreign object damage.**

During winter months and cold weather operations, the following concerns and safety requirements that maintenance personnel and ground support personnel must be aware of:

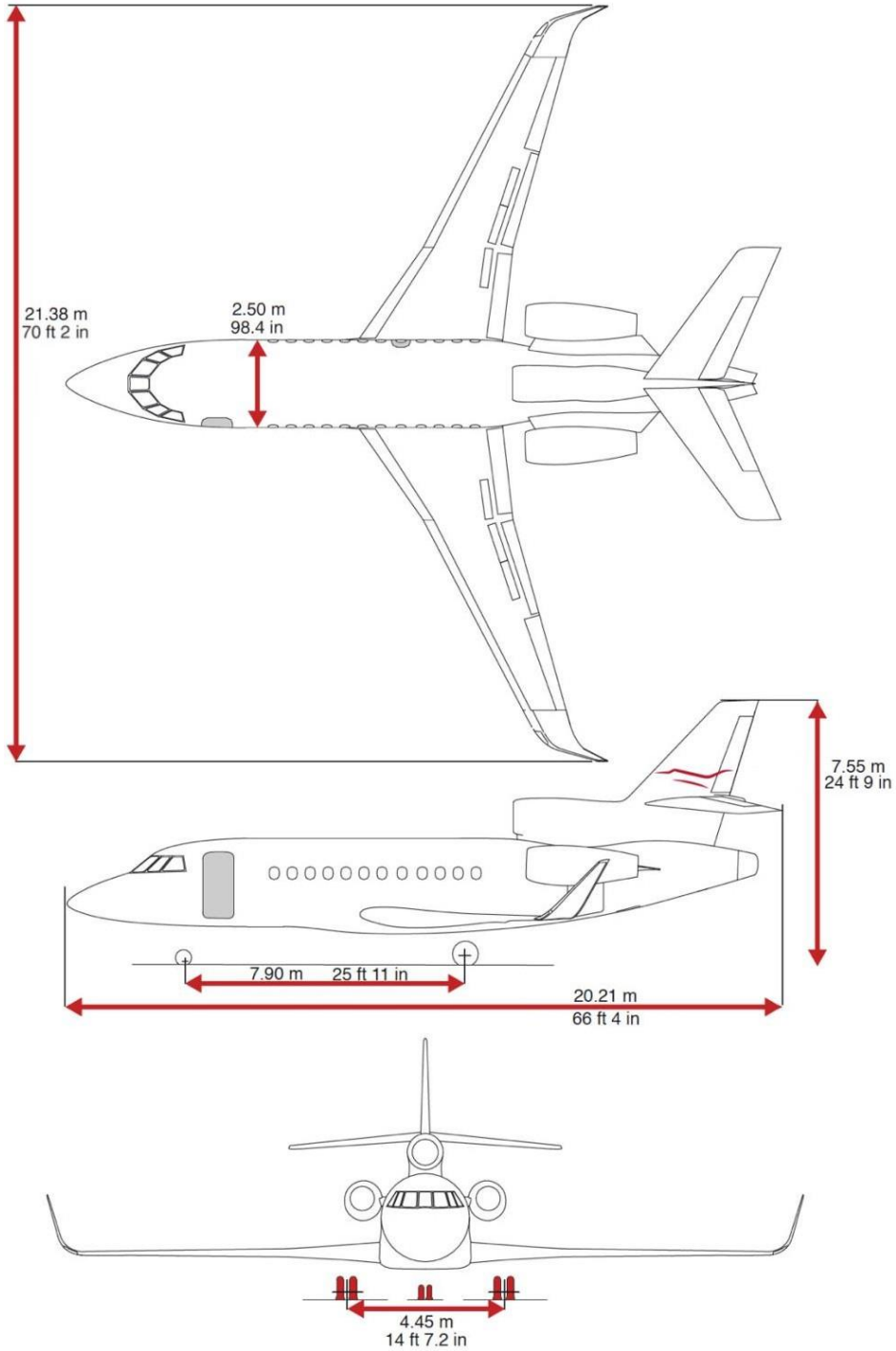
4) Reduced visibility;
5) Poor traction; and
6) Increased stopping distanc

17.7 AIRCRAFT PRESENTATION - DASSAULT FALCON 900DX &900EXY & 900LX (F900)

17.7.1 AIRCRAFT DIMENSIONS

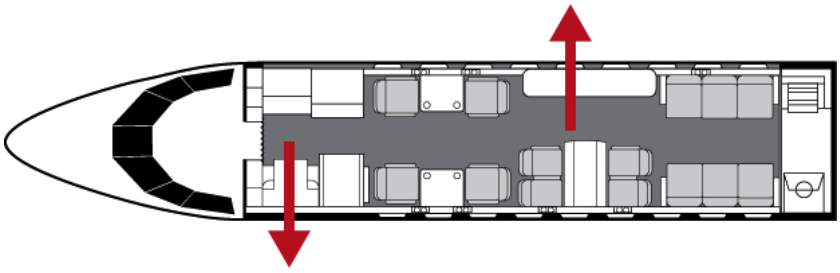


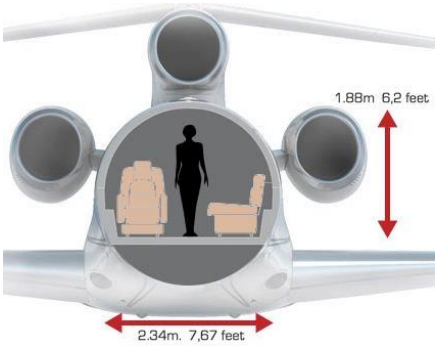
FALCON 900DX & 900EXY (NO WINGLETS)AIRCRAFT DIMENSIONS - FALCON 900LX (WITH WINGLETS)



WARNING	**The Falcon 900LX wingspan is significantly larger compared to its brethren aircraft: the Dassault Falcon 900DX and 900EX. FBO/GSP staff must be made aware about the size differences and receivea briefing at their respective home basis by their FBO/GSP employer.**

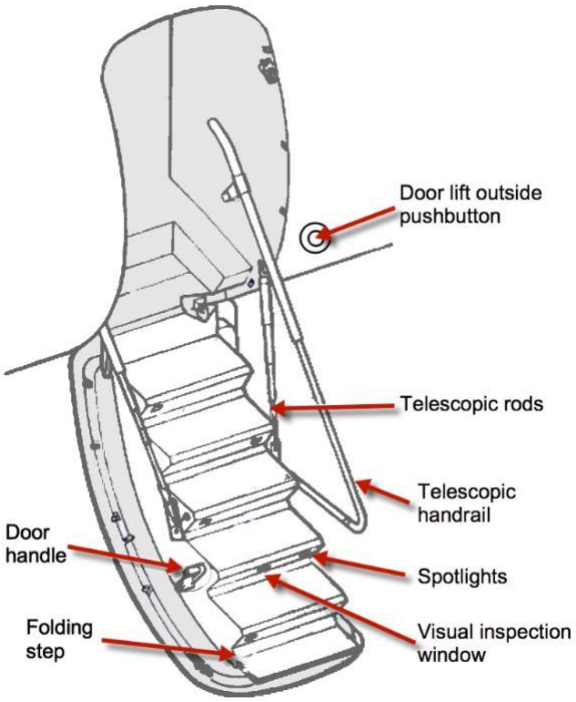
17.7.2 DOORS & CABIN & INTERIOR DIMENSIONS





On all Falcon 900 series aircraft, the cabin main entrance door is electrically operated and lifted.

The opening/closing function can be initiated from both inside and outside the airplane through the use of pushbuttons located on the airplane exterior and inside the airplane on a service strip at the topof the left-hand cabinet.



The passenger door is located on the left side of the cabin, immediately aft of the flight deck. It opens outward and down. Integral stairs and handrail are provided to access the airplane.

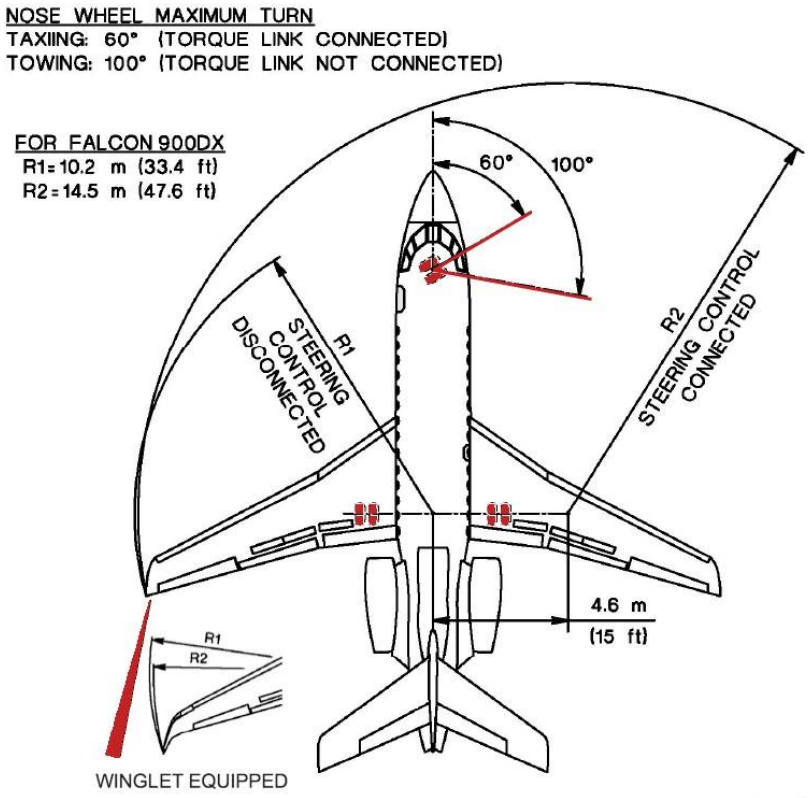
The door may be opened from either the inside or outside. A key lock is provided on the exterior for security when the airplane is unattended.

The passenger door is also equipped with a visual inspection window. When the door is closed, the two arrows must be aligned.

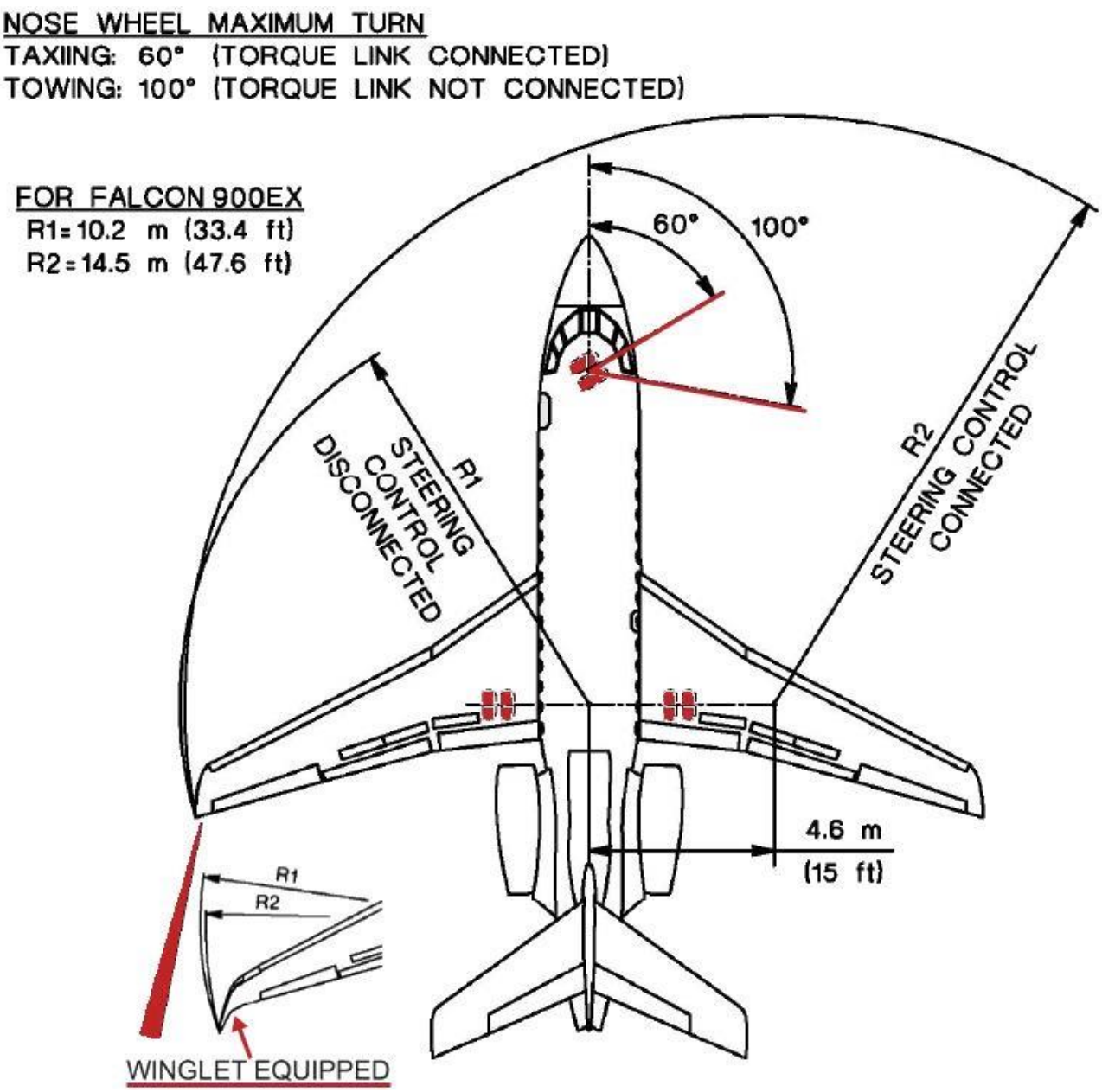
WARNING	• **Make sure that there are no objects or personnel on, around or below the passenger before it is moved (opened/closed).**

17.7.3 GROUND CLEARANCE & STEERING ARC & TOWING RADIUS

FALCON 900DX



FALCON 900EXY

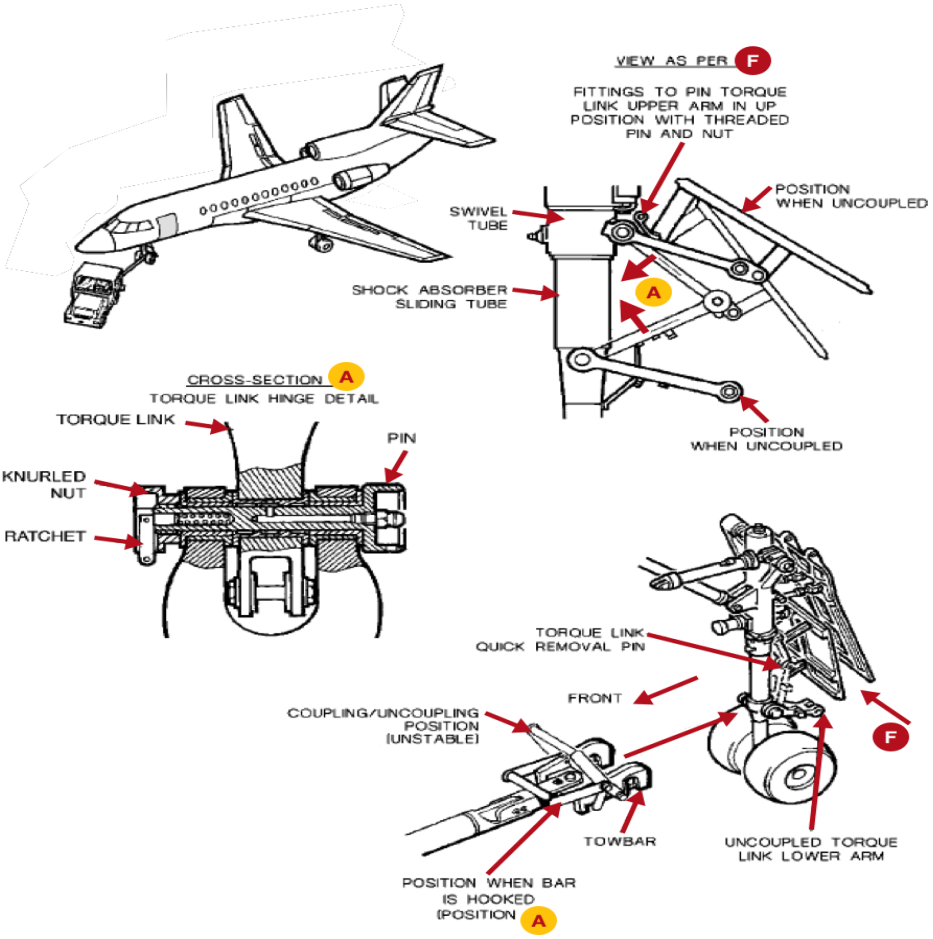


17.7.4 NOSE GEAR TOWING & PUSHBACK

WARNING	**Four (4) operators are necessary to tow the aircraft with the towing vehicle:** • **one operator to operate the towing vehicle,** • **one operator in the cockpit to operate the emergency/park brake system,** • **two operators at the tips of the wings to make sure that the clearances necessary to manoeuvre the aircraft are correct.**

CAUTION	**The towbar assembly has 3 stress limiting shear pins. If a shear pin breaks, use the spare shear pins supplied with the towbar.**

CAUTION	**Towing instructions and safety guidelines/warnings in "GOM/A 4.13" should also be consulted and applied.**



17.7.5 TOWING AIRCRAFT WITH TOWBAR

- Disconnect all the external supplies of the aircraft and the aircraft grounding connection.
- Connection of the tow-bar assembly:
  - Position the towbar on the towing lugs (locking lever in position B)
  - Lock the towbar over the towing lugs (bring locking lever to position A).
  - Make sure that the tow-bar locks into position.
  - Connect the tow-bar assembly to the towing vehicle.

	**If one of the shear pins on the towbar breaks:** • **Stop the towing immediately,** • **Install a spare shear pin,** • **Do a check of the nose landing gear.** **Operate the towing vehicle at low speed and obey the maximum steering angle.**

	**The passenger door must be closed during towing.** **Stop the aircraft only with the towing vehicle, use the aircraft parking brake only in an emergency situation.**

- Remove all the ground support equipment and other objects around the aircraft.
- Remove the wheel chocks.
- Release the parking brake.
- Obey the steering angle and the radius limits while you tow the aircraft smoothly and gradually.
- At the end of the towing, stop the aircraft with the wheels of the nose landing gear aligned with the aircraft centreline.
- Put the wheel chocks in position.

Disconnection of the tow bar:

- Bring the locking lever in position B.
- Remove the tow bar from the towing lugs.

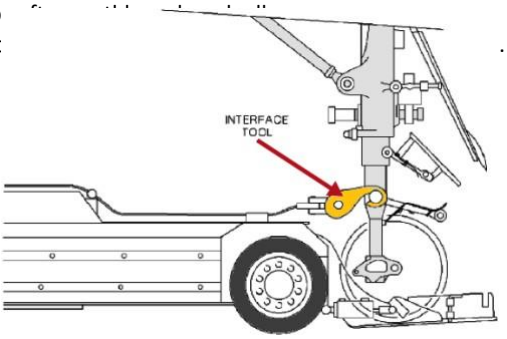
17.7.6 TOWING AIRCRAFT WITH TOW BAR LESS

- Disconnect all the external supplies of the aircraft and the aircraft grounding connection.
- Remove the wheel chocks.
- Put the tow-bar-less vehicle in position.
- Attach the interface tool to the strap hook of the two-bar-less vehicle.
- Install the interface tool on the towing lugs.
- Release the park brake.

	**During the steps that follow, stop the winching operation immediately if the shear pin breaks. (red painted area visible) If the shear pin of the interface tool breaks:** • **Install a new shear pin.** • **Do a check of the nose landing gear.** **Operate the towing vehicle at low speed and obey the maximum steering angle.**

	**The passenger door must be closed during towing.** **Stop the aircraft only with the towing vehicle, use the aircraft parking brake only in an emergency situation.**

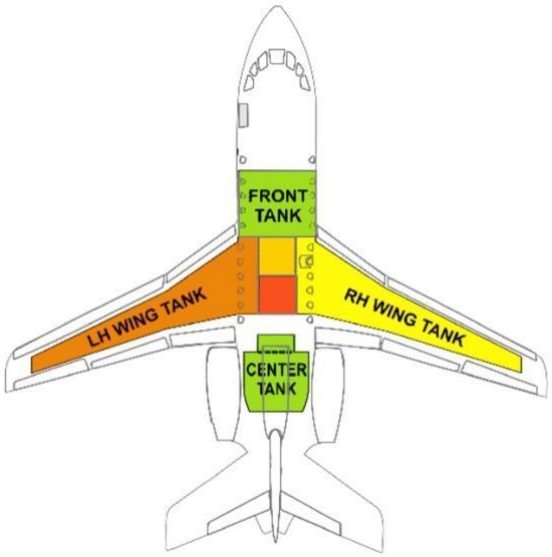
- Obey the steering angle and the radius limits while you tow the air
- At the end of the towing, stop the aircraft with the wheelsof the nc
- Pull aircraft parking brake.
- Lower the cradle.
- Loosen the strap.
- Remove the interface tool.
- Slowly move the tow-bar-less vehicle away from theaircraft.
- Put the wheel chocks in position.



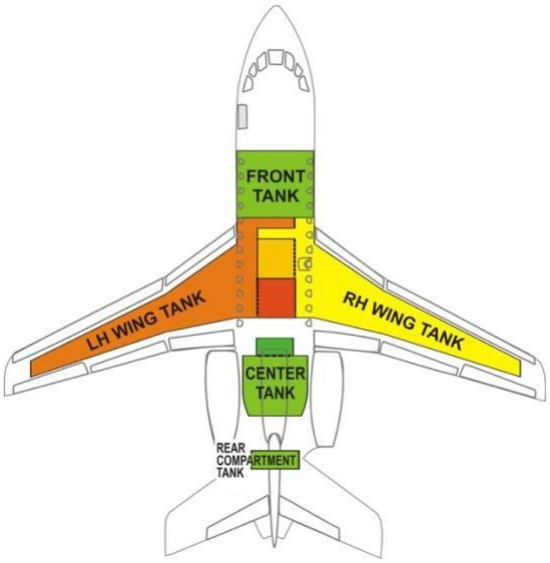
17.7.7 REFUELLING - SERVICING

The fuel system provides engines and APU with pressurized fuel. It is composed of three independent groups of fuel tanks (left, centre and right) that feed their respective engine and the APU.

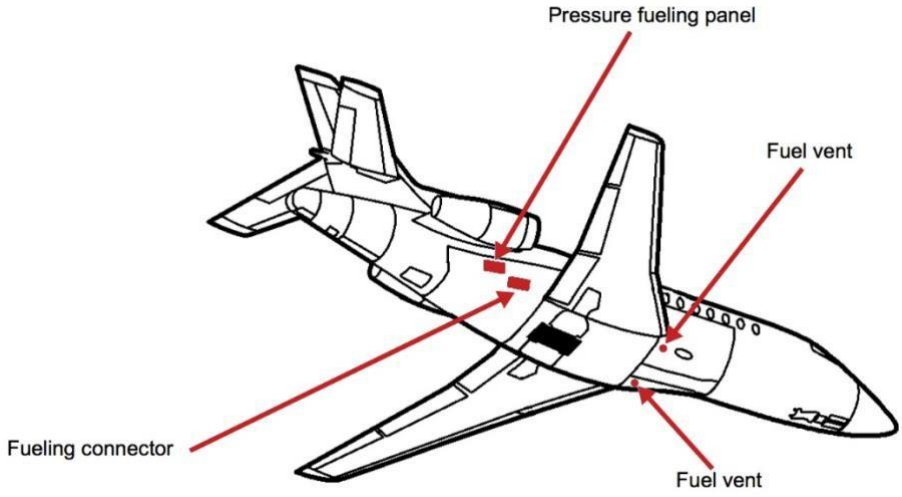
Falcon 900DX Fuel Tanks



Falcon 900EXy Fuel Tanks



Locations of the pressure fuelling panel and fuelling connector are shown in the following illustration.



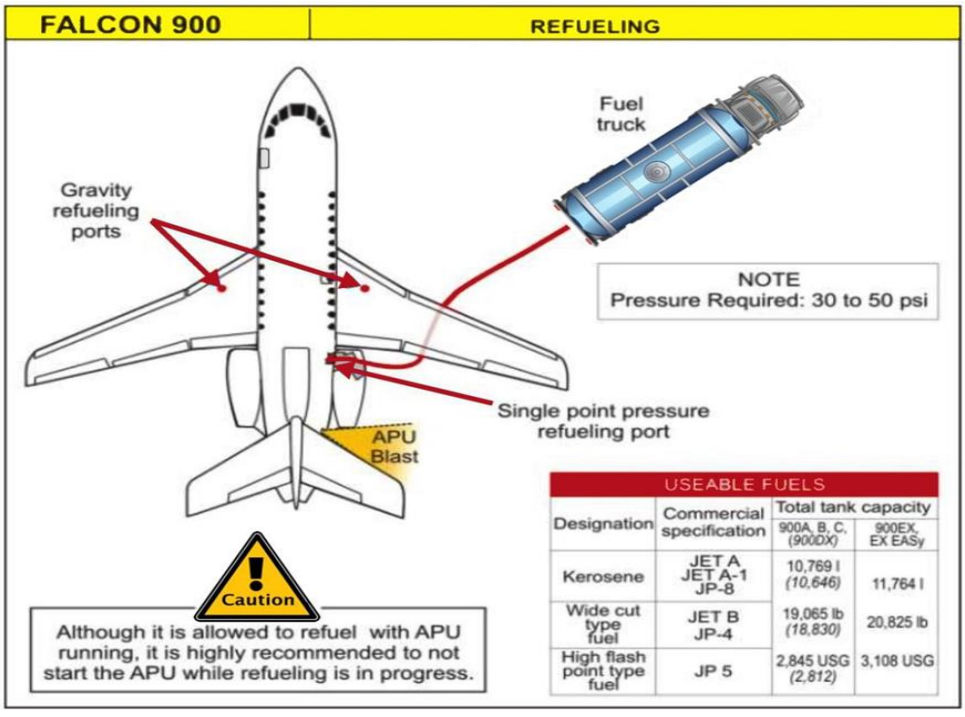
AIRCRAFT GROUNDING/BONDING – ELECTROSTATIC LINK

The special bonding tool is located in the pressure-refuelling compartment.

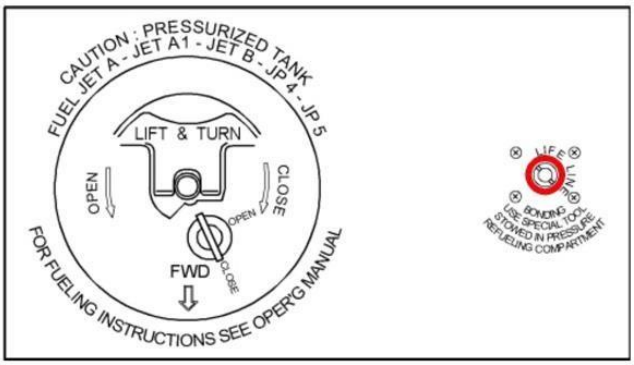
OVER WING FUELLING

When pressurized fuel is not available, gravity refuelling may be performed through two wing gravity filler ports, located on each upper wing surface.

Electrical power on the airplane is required for gravity refuelling to be able to transfer fuel from wing to centre tanks.



Description of bonding connection and Fuel cap.



CAUTION	**As there is no automatic stop, refuelling progress must be monitored on the quantity indicators.**

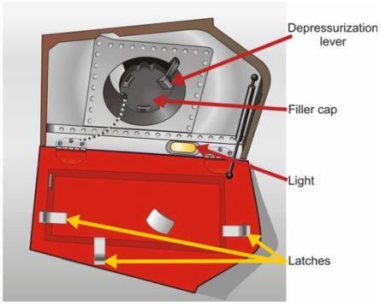
PRESSURE REFUELLING SYSTEM

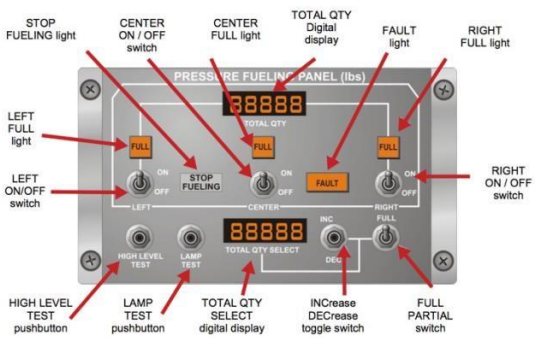
The Falcon 900DX and Falcon 900EXy pressure-refuelling system needs electrical power and a regular refuelled. Thepressure refuelling system is powered by the battery bus. This allows refuelling without the Ground Power Unit (GPU).

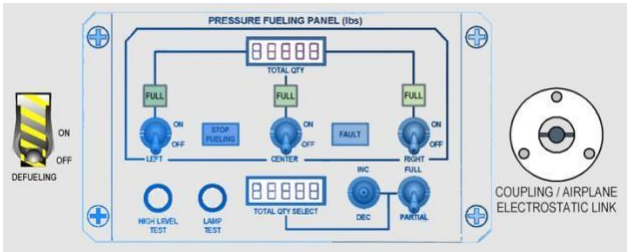
The refuelling pressure must be between 30psi and 50psi maximum. For a partial refuelling, refuelling stops automaticallywhen the selected fuel quantity is attained (accuracy is of 50lb).

Pressure refuelling controls are located on the pressure fuelling panel, behind an access door on the right-hand lower fuselage of the airplane, aft to the wing.

Falcon 900DX Refuelling Controls Falcon





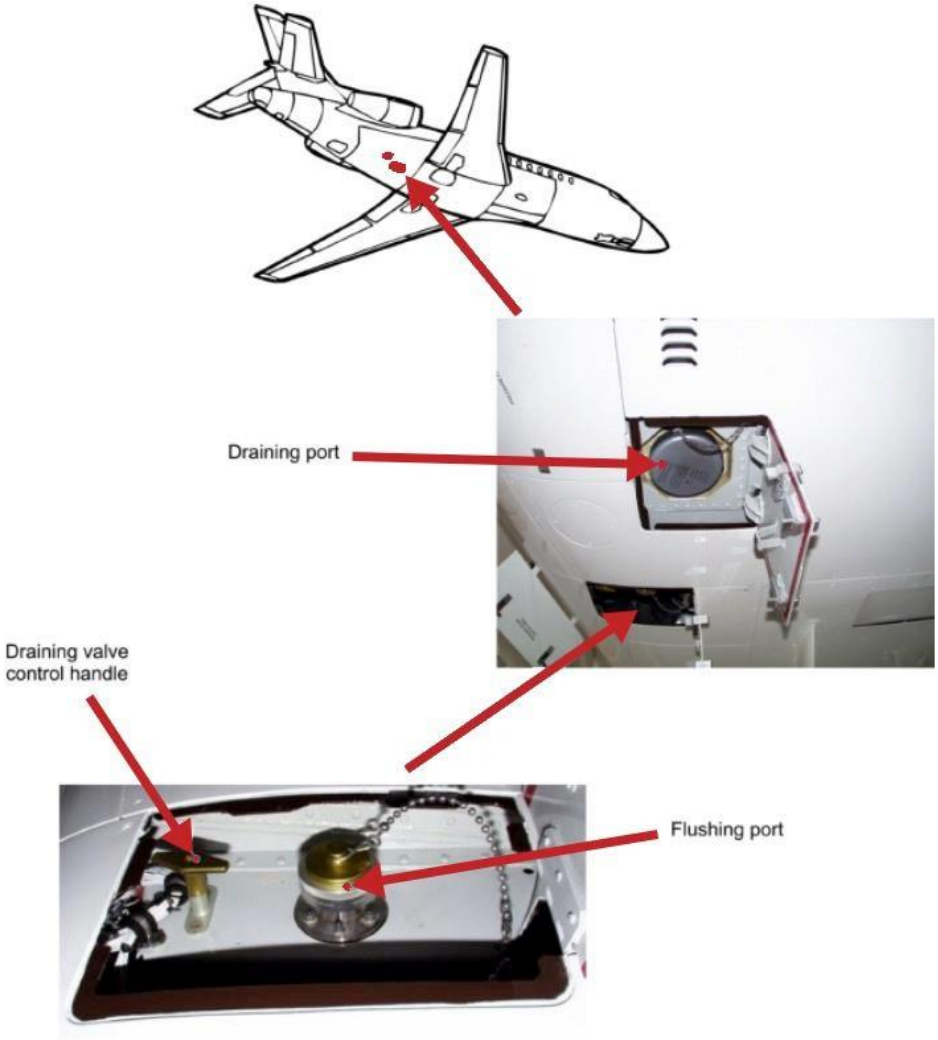


17.7.8 WASTE SYSTEM - SERVICING

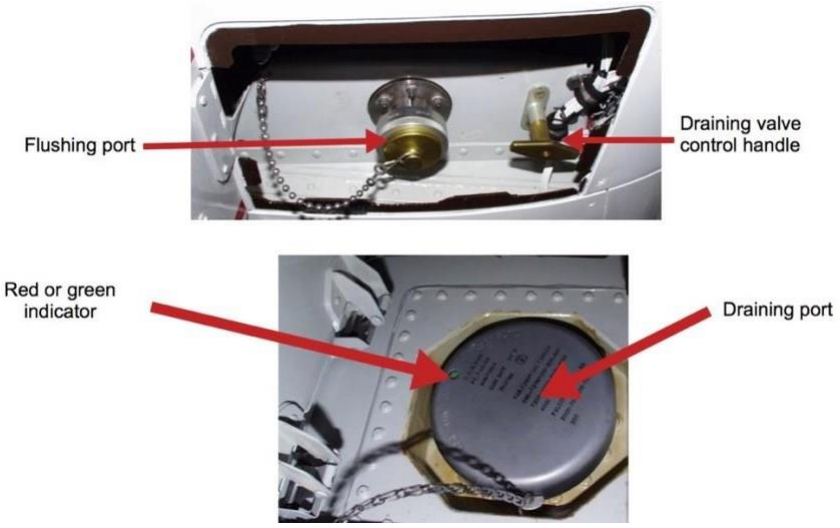
The Falcon F900DX and Falcon 900EXy are both equipped with a chemical type front (option) and rear toilet unit with aflush and drain system.

Wastewater is drained through water front and rear drain masts located under the fuselage. These masts and certain linesare electrically anti-iced.

The chemical-type rear toilet unit features a drain pan with a drain valve and bowl equipped with a flush and drain system. Toilet wastewater draining, and toilet water tank filling can be performed through ports inside toilet service panel.



Control	Function
Draining Valve Control Handle	• **When the handle is pulled, the drain valve opens (connect the draining tube before).**



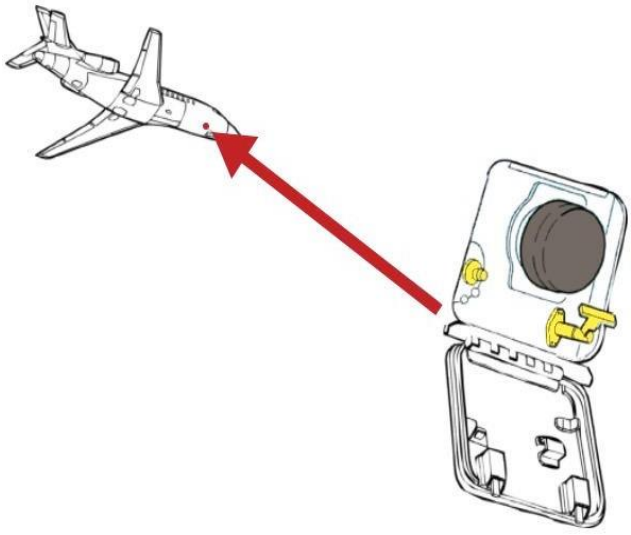
WARNING	**For Water and Toilet Servicing: read carefully "GOM/A 4.3", "GOM/A 4.4" and "GOM /A7.6".**
CAUTION	**When the aircraft stays on the ground at temperatures near or below 0°C (32°F), it is mandatory to fully drain the waste tank to prevent damage caused by freezing.**

CREW LAVATORY (FRONT)

On both the Falcon 900DX and Falcon 900EXy a lavatory compartment is installed immediately in front of the main entry door.

The compartment houses an electric-flush toilet serviced through an external panel on the forward lower RH fuselage.

On the outboard sidewall, a panel incorporates a fold-out sink with hot/cold water faucet. Wastewater drains overboard through a heated drain mast system.



17.7.9 POTABLE WATER - SERVICING

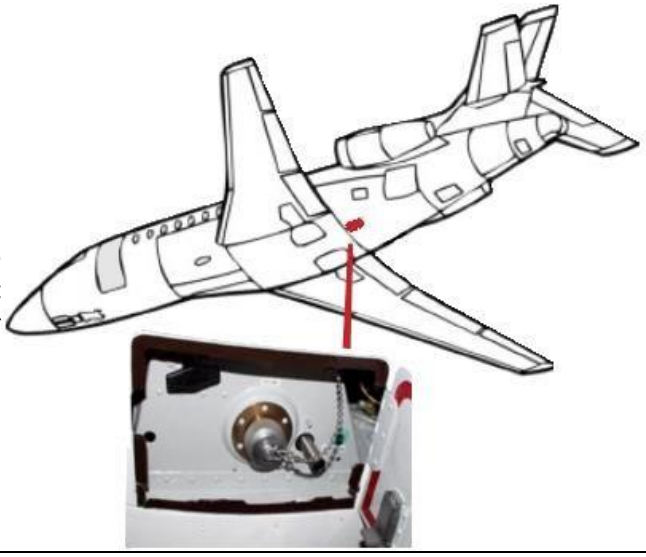
The Falcon F900DX and Falcon 900EXy are both equipped with a pressurized water system.

The pressurized water system supplies:

- The RH front galley;
- The rear toilet washbasin.

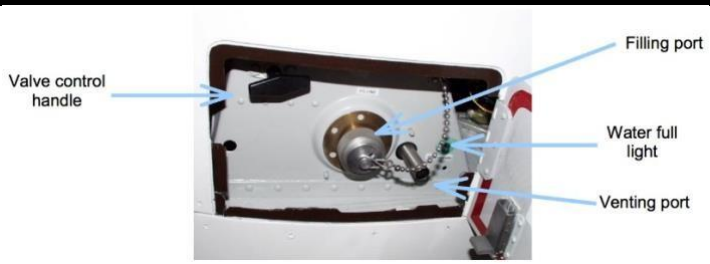
The pressurized water system essentially includes a potable water tank that can be filled by gravity through a filling port located on the RHof the washbasin bowl, in the rear toiletor by pressure through a port inside potable water service door.

Potable water tank capacity: 56.8 litres(15 USG)

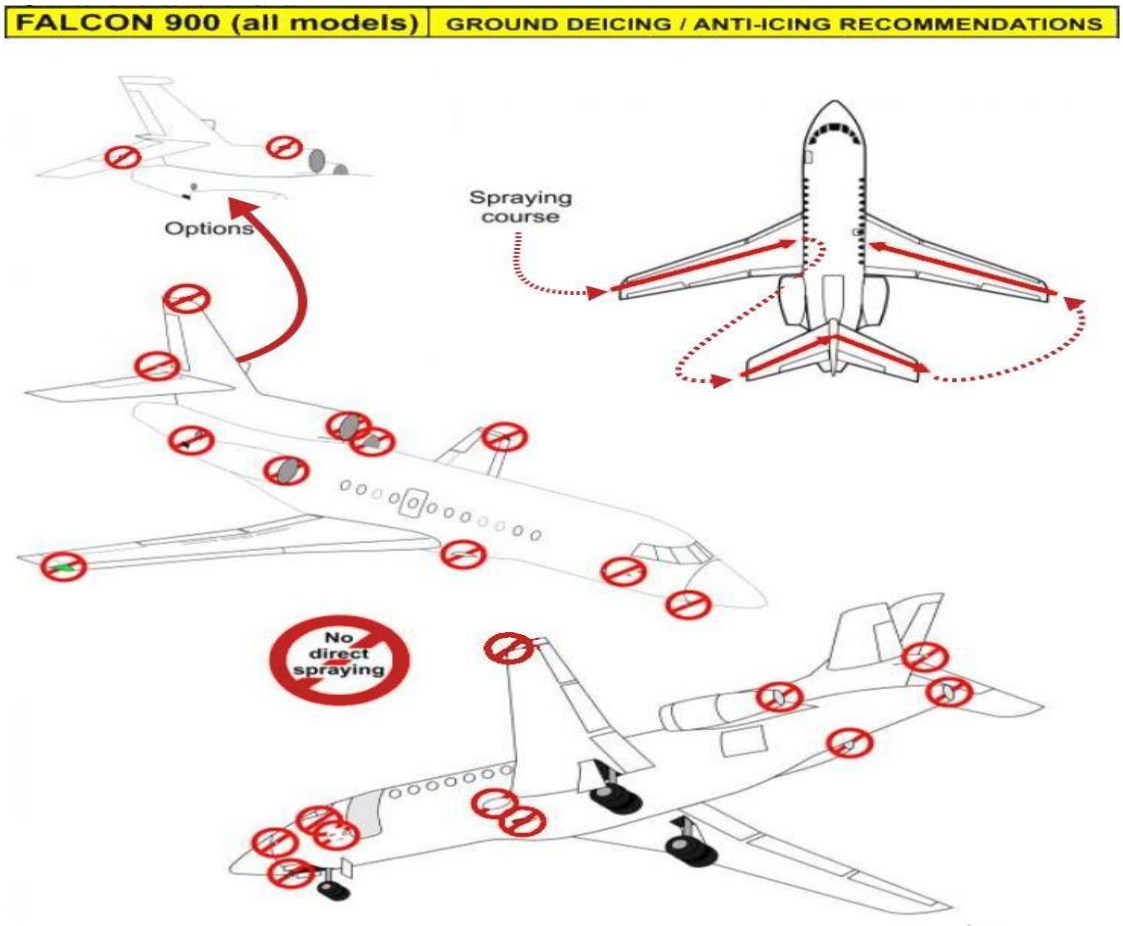


CAUTION	**The water pressure of the external filling source must not exceed 60 psi (4 bar).**
CAUTION	**When the aircraft stays on the ground at temperatures near or below 0°C (32°F), it is mandatory to ful drain the water system (potable water tank and water lines) to avoid its deterioration due to freezing.**

Control	Function
Control Handle	• **When the handle is pulled the tank filling and venting lines open.** • **When the handle is pushed, the tank filling ar venting lines close.**
Water Fu Light	• **Indicates that the tank is full**



CAUTION	• **To open gravity filling cap, press it before to depressurize the water tank.** • **Water tank must be filled only with potable water (distilled and softened water prohibited).**
CAUTION	• **The water system can be drained to prevent damage by freezing In normal operating conditions,it is recommended to drain the tank to avoid contamination.**
WARNING	• **For Water and Toilet Servicing: read carefully "GOM/A 4.3", "GOM/A 4.4" and "GOM/A 7.6".**

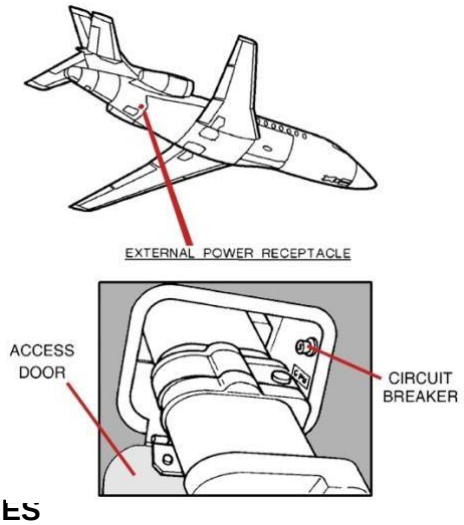


Note: The water supply system and the tank are protected against overpressure through pressure relief valves. The tankis also protected against negative pressure through a relief valve.

17.7.10 EXTERNAL POWER - GPU – CONNECTIONS

The Falcon 900DX and Falcon 900EXy are equipped with a GPU receptacle, located on the right-hand side of the fuselage, under the right-hand engine.

An approved 28 VDC Ground Power Unit (GPU) may be used for prolonged periods to power the system during maintenance and servicing. The GPU may also be used forAPU starting. Recommended amperage is 1,000 A.

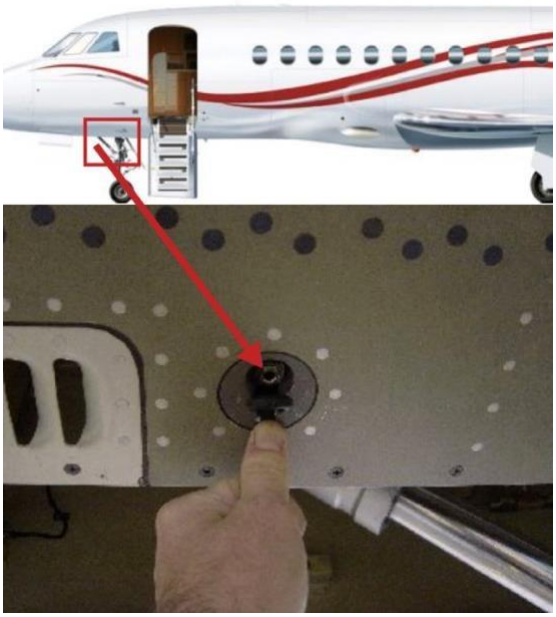


17.7.11 DE-ICING/ANTI-ICING – NO-SPRAY ZONES

The first area to be De/Anti-Iced should be visible from the cabin/cockpit and should be used to provide a conservative estimate for unseen areas of the airplane before departure/take-off.

Refer also to generic information on De/Anti-Icing no spray zones in "GOM/A 8.4"

17.7.12 INTERPHONE CONNECTION FOR HEADSET

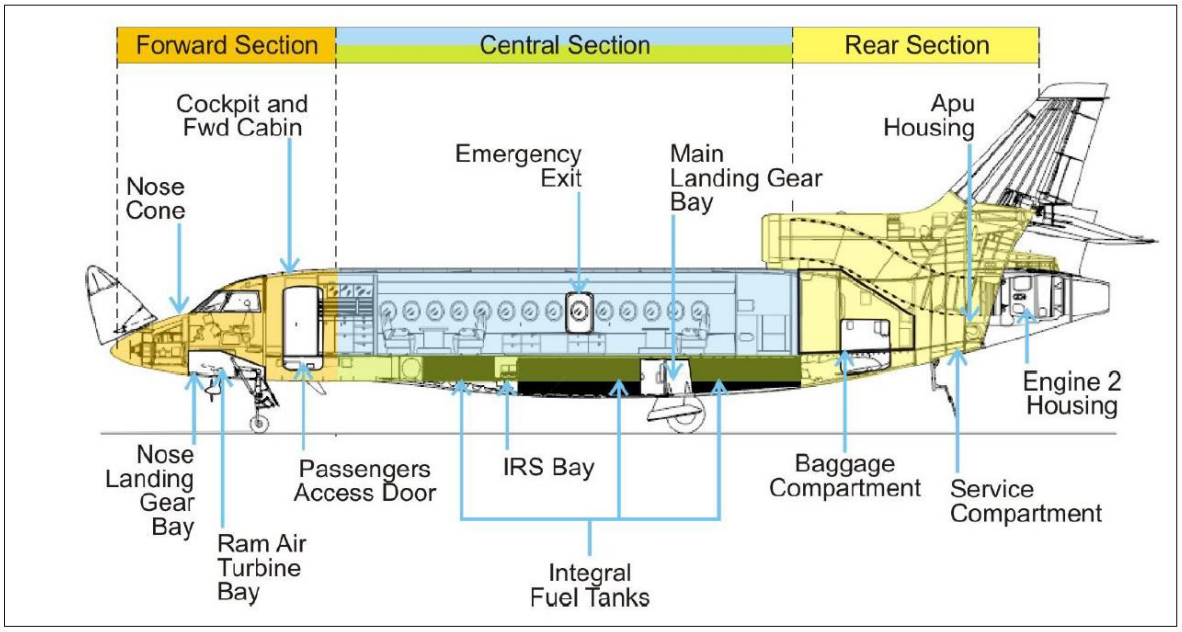


The Falcon F900DX and Falcon 900EXy are both equipped with an interphone connection for headsets with plug jacks.

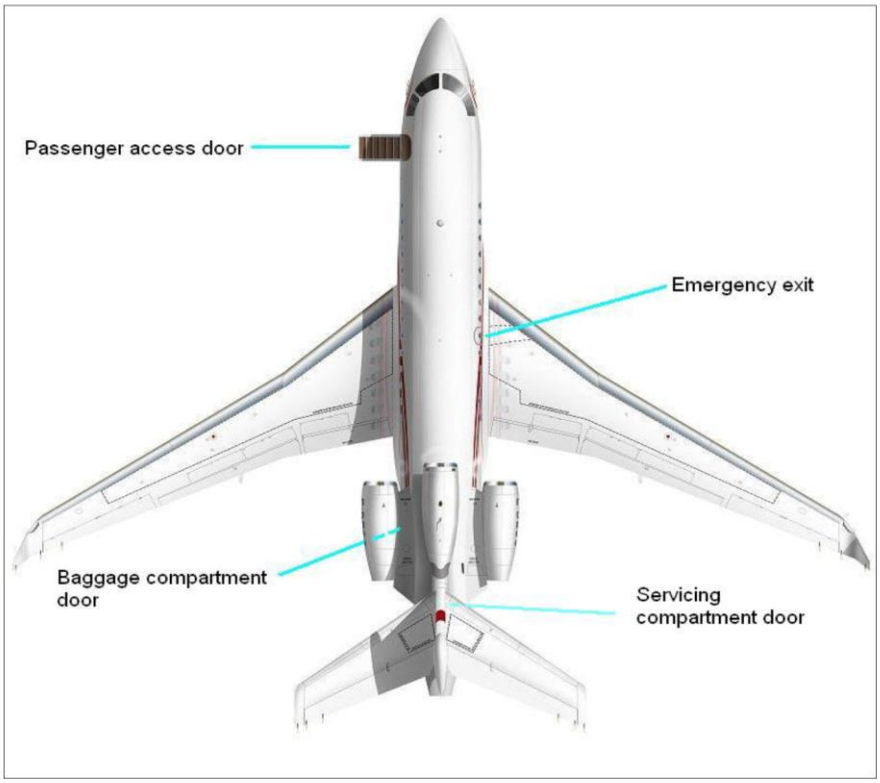
It is located at the front left side of the aircraft, at the nosewheel well.

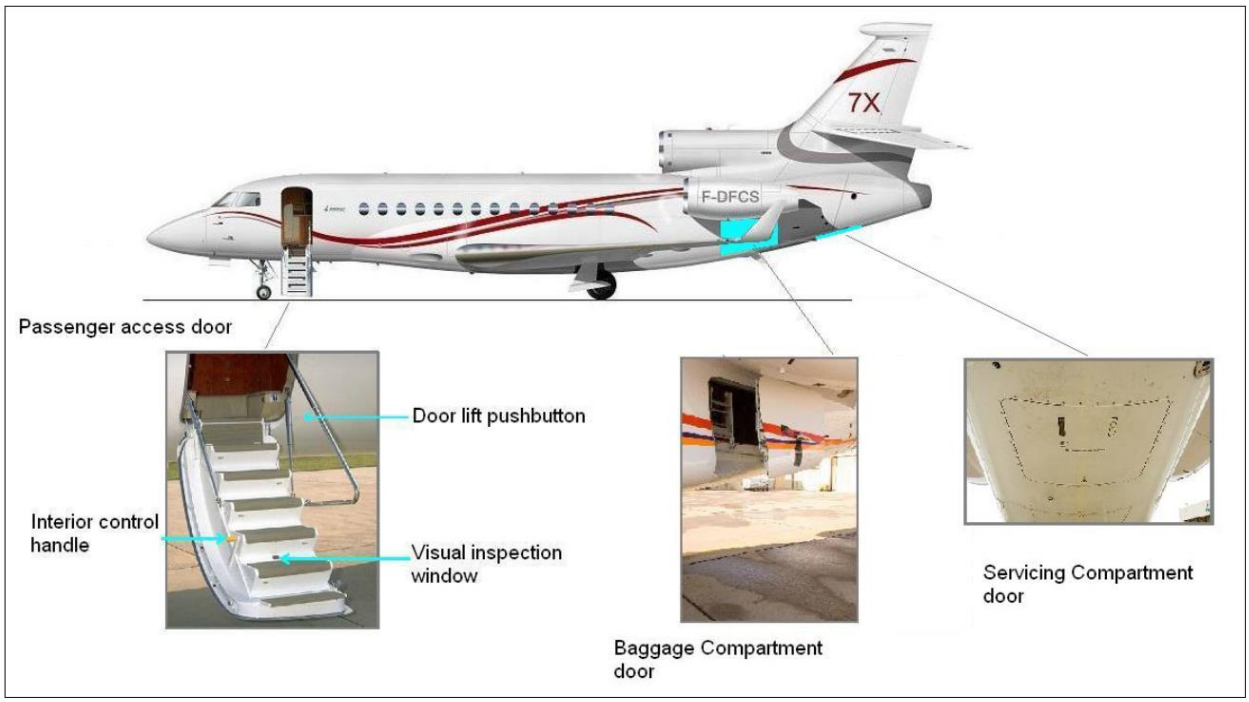
18.1 AIRCRAFT PRESENTATION – Dassault Aviation Falcon 7X

18.1.1 .Airplane Fuselage Composition

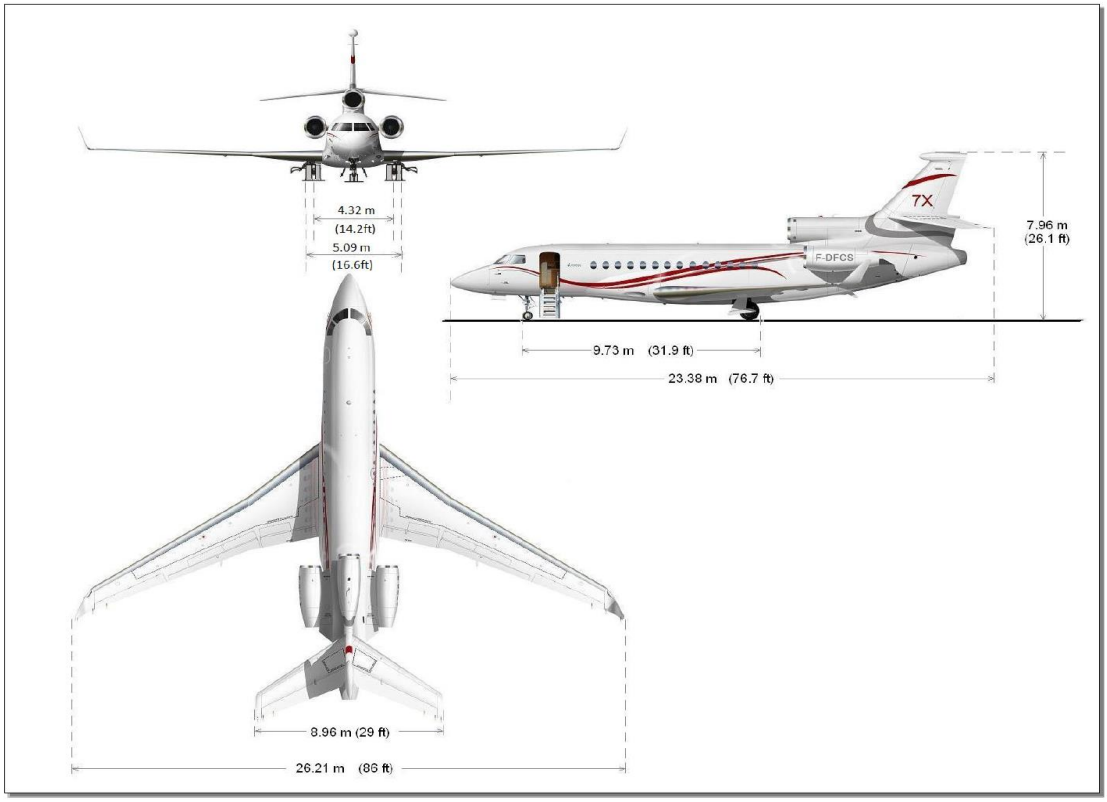


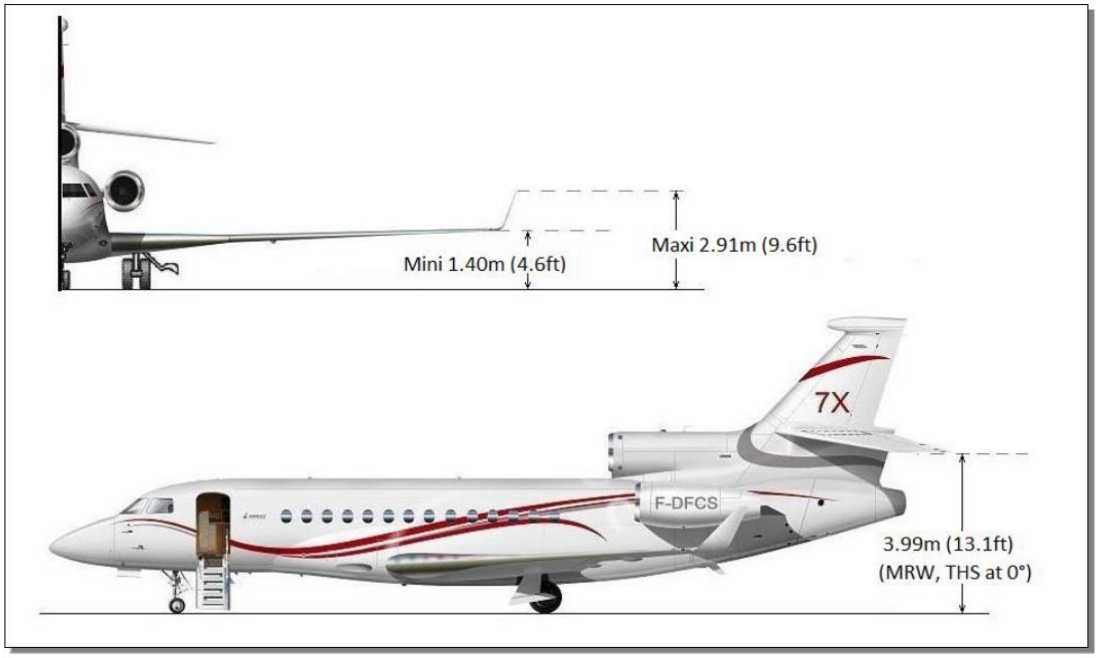
18.1.2 Accessibility



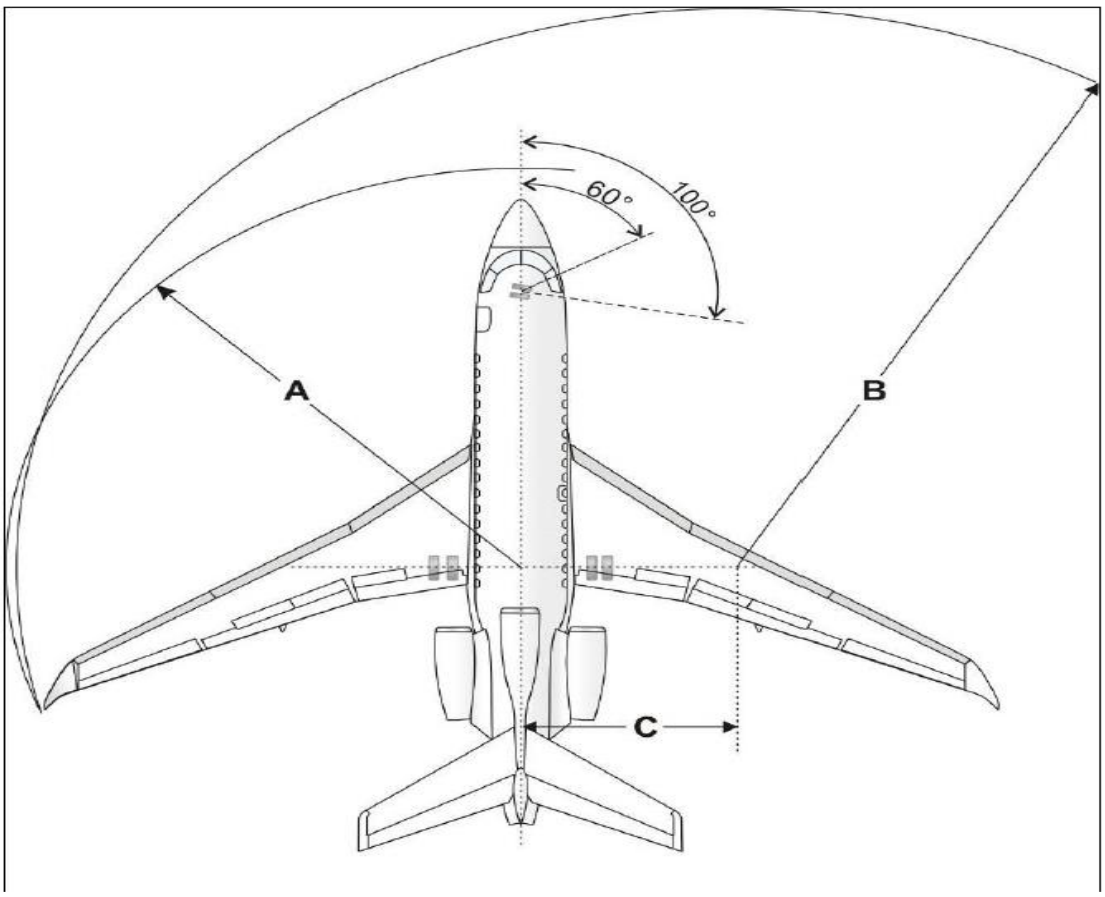


18.2.1 General Aircraft Dimensions

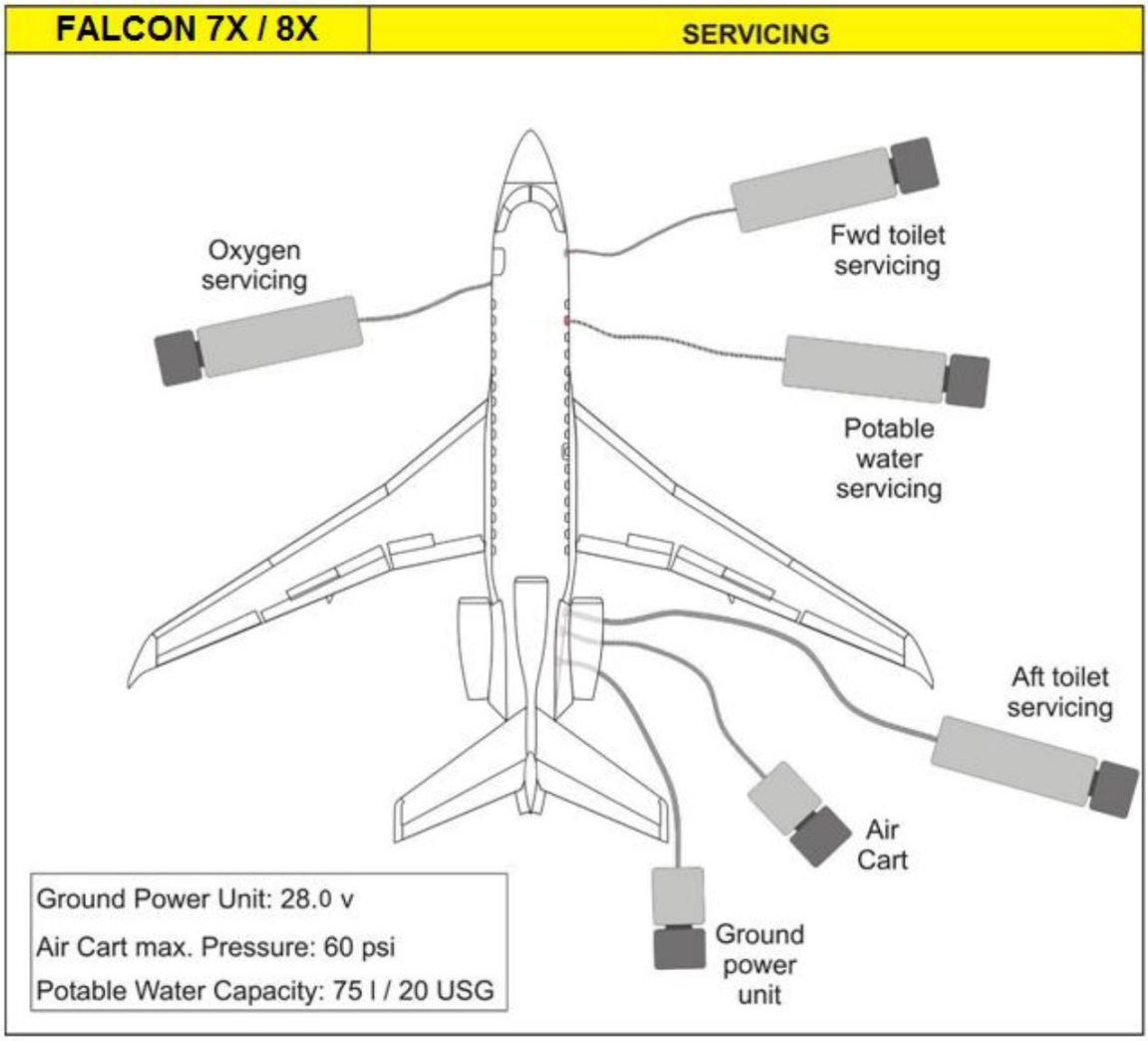




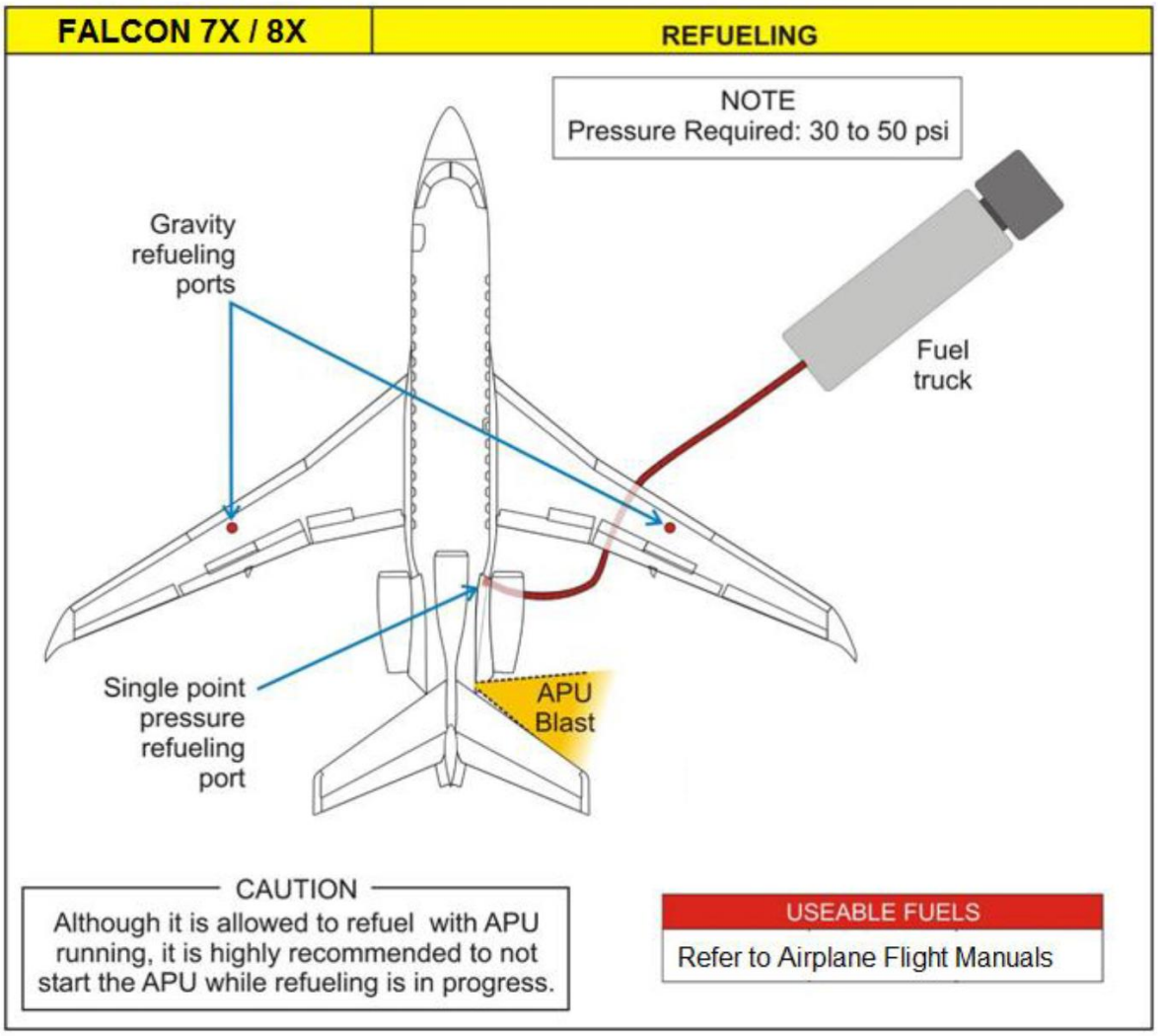
18.3.1 Minimum Turning Radii



18.4.1 Servicing Arrangements



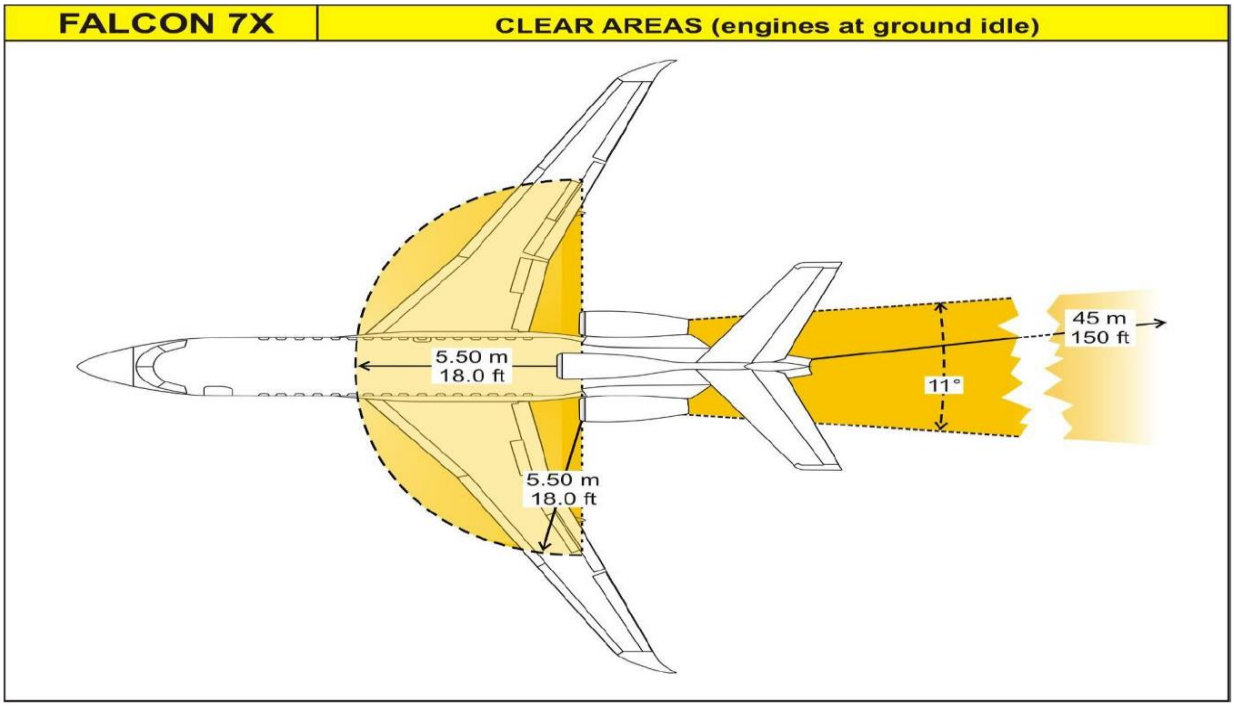
18.5.1 Refueling



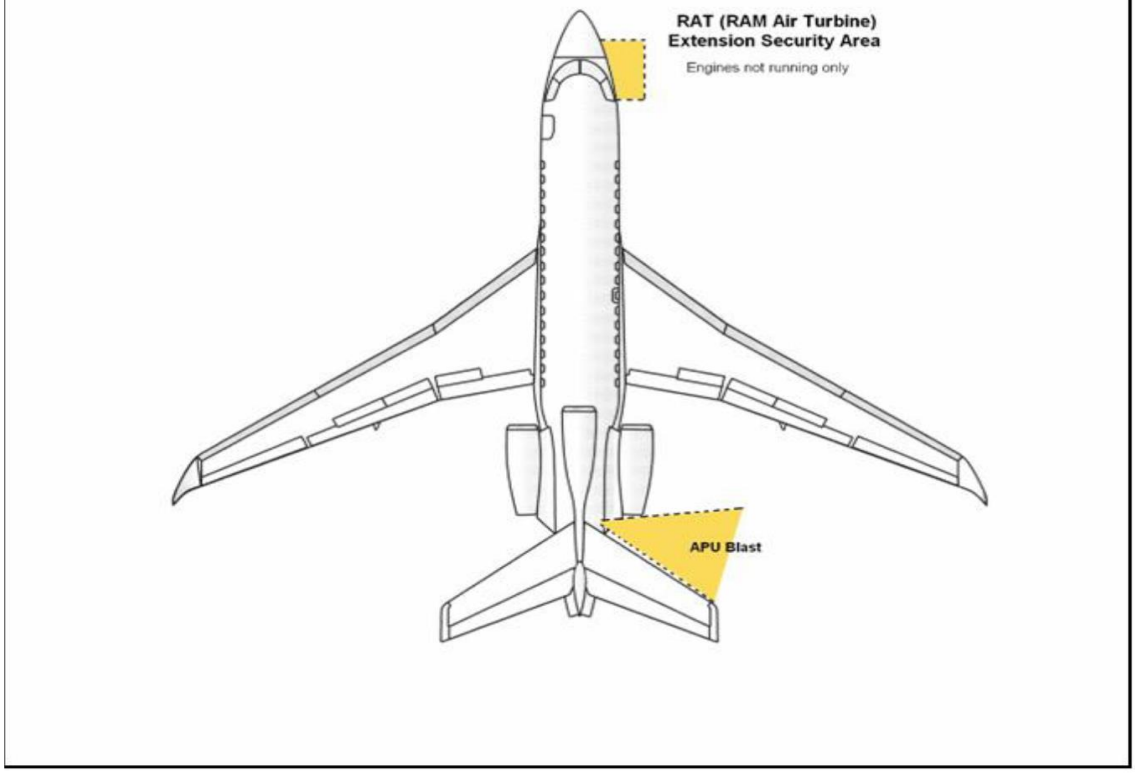
18.5.2 Ground De-icing recommendation

18.5.3 Clear Areas

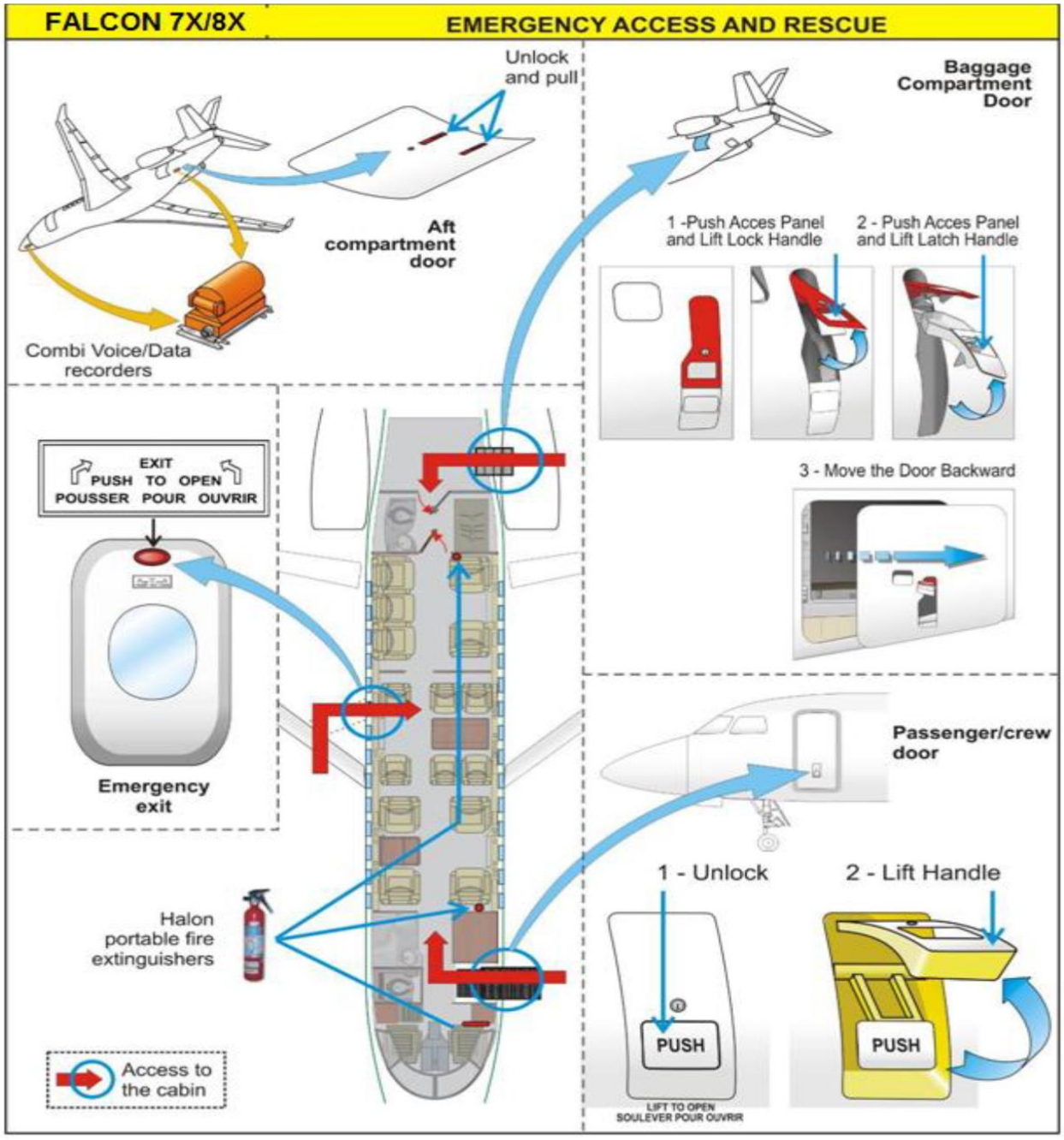
FALCON 7X | **CLEAR AREAS (engines at ground idle)**



FALCON 7X / 8X | **CLEAR AREAS (Engines not running)**



18.5.4 Emergency access and rescue



19.0 HYPERION Aviation CONTACTS

Hyperion Aviation contacts

Postal address : Skyparks Business Centre ,Malta International Airport Luqa ,LQA 4000 ,Malta

OCC Contacts : occ@hyperion.aero

Telephone : +35620927611

Hyperion Aviation OCC must be immediately notified any reportable aircraft accident

.

20 FORMS

20.1 AIRCRAFT ONLOAD+DEPARTURE

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
B. AIRCRAFT ONLOAD/DEPARTURE					
1	Proper hearing protection is used by all employees				
2	Proper safety footwear is worn				
3	Employees walk rather than run on the ramp				
4	Local speed limits are observed by all drivers				
5	Roadways are used by equipment operators				
6	Operator's arms and legs are within the profile of vehicle at all times when moving				
7	All vehicles make a stop for a brake check				
8	All container/cart doors or curtains are closed and fastened during transport				
9	Before entering cargo compartment, all containers checked for safe condition				
10	When mobile passenger steps are used, they are properly positioned to the aircraft door. Stabilizers are deployed				
11	Personnel refrain from "Horseplay"				
12	All employees avoid driving ground equipment under the aircraft wings and fuselage				
13	Baggage tractor hood/fender/seat or top of containers are free of baggage/cargo/mail				
14	Employees refrain from walking, standing or sitting on a moving conveyor belt				

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
B. AIRCRAFT ONLOAD/DPARTURE					
15	The weather door is closed when the bridge is stowed				
16	Wingtip clearance cones are removed and correctly stowed (if applicable)				
17	If the headset operator is not in the tractor they are clear of the nose gear when the aircraft is moving				
18	When utilized, Wing walkers are in position and using proper hand signals				
19	Wing walkers are aware of engine hazard zones				
20	Employees understand the meaning of aircraft rotating beacons				
21	Wands are used for marshalling and all signalling (illuminated in low visibility)				
22	Employees avoid walking under the fuselage or stepping across the tow bar				
23	The marshaller is at the correct position to hold the aircraft brakes				
24	The tow bar is disconnected properly				
25	Chocks removed and correctly stowed.				

20.2 AIRSIDE MANAGEMENT SAFETY REVIEW CHECKLIST

	STATION: **DATE:** **REVIEWED BY:**			
		Y	**N**	**REMARKS**
1	Are airside performance evaluations conducted?			
2	Is there a set frequency for airside performance evaluations?			
3	Are findings of airside performance evaluations recorded?			
4	Are findings of airside performance evaluations reviewed and assigned?			
5	Are airside performance targets/goals established and communicated?			
6	Are airside performance targets/goals measured?			
7	Are shortfalls of airside performance targets/goals analyzed?			
8	Do records indicate that all personnel are trained for the tasks being performed?			

20.3 CABINE SERVICE

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
H. CABIN SERVICE					
1	Cleaning vehicles approach procedures followed				
2	Personnel pay attention to operating A/C beacons				
3	Cleaning vehicles positioning procedures followed				
4	Cleaning vehicles operating procedures followed				
5	All cabin cleaning safety procedures (e.g., biohazard, needle sticks) followed				
6	Cabin personnel support a FOD-free ramp/airside (e.g., pick up FOD)				
7	A/C door(s) operational procedures followed				
	Personnel				
8	PPE worn				
9	Personnel exhibit appropriate work behavior (e.g., no “horseplay”)				
10	Personnel use correct manual handling, ergonomics (e.g., proper lifting techniques)				
11	Personnel avoid walking where not authorized (e.g., under the fuselage, stepping over towbar, or between carts)				
12	All traffic regulation procedures followed				

20.4 CATERING

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
F. CATERING					
1	Catering truck approach procedures followed				
2	Catering truck positioning procedures followed				
3	Catering truck operating procedures followed				
4	Engine inlet plugs used as required				
5	Catering truck removal procedures followed				
6	Catering truck is free of FOD; any FOD/garbage dropped on ramp removed				
	Truck operated safely (e.g., speed, safety zones, reckless)				
8	Truck properly configured prior to removing from A/C				
	Personnel				
9	PPE worn				
10	Personnel exhibit appropriate work behavior (e.g., no “horseplay”)				
11	Personnel use correct manual handling, ergonomics (e.g., proper lifting techniques)				
12	Personnel avoid walking where not authorized (e.g., under the fuselage, stepping over towbar, or between carts)				
13	All traffic regulation procedures followed				

20.5 DI- ICE AND ANTI ICE

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
I DE-ICE/ANTI-ICE					
1	De-ice/anti-ice truck approach procedures followed				
2	De-ice/anti-ice truck positioning procedures followed				
3	De-ice/anti-ice truck operating procedures followed				
	Personnel				
1	PPE Worn				
2	Communication between bucket and cab established (e.g., headset worn)				
3	Personnel exhibit appropriate work behavior (e.g., no “horseplay”)				
4	Personnel use correct manual handling, ergonomics (e.g., proper lifting techniques)				
5	Personnel avoid walking where not authorized (e.g., under the fuselage, stepping over towbar, or between carts)				
6	All traffic regulation procedures followed				

20.6 EQUIPMENT

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
C. EQUIPMENT					
1	Vehicles are properly maintained				
	a) Parking Brake - Foot Brake				
	b) Windshield Mirrors, Windows Cracked/dirty				
	c) Windshield wipers				
	d) Wheels/tires				
	e) Lights/reflectors				
	f) Horn/back-up alarms				
	g) No evidence of fluid leakage				
	h) Cleanliness-interior and exterior				
	i) Functional operating controls (levers, switches, etc.)				
	j) Functional operating features (belts, casters, hoses, etc.)				
2	All vehicles requiring them have chocks				
3	The brake systems on carts/dollies operate properly				
4	There is a complete complement of locks on all dollies				
5	Brakes are set on all carts/dollies				
6	Seats are provided for any passengers riding on equipment				
7	All safety devices are functional				
8	Fire extinguishers are installed on specified vehicles. Inspection tags are current				
9	Baggage containers are checked for serviceability prior to being loaded				
10	Sides on carts are in the up position; curtains closed during transport. Container doors are securely closed				
11	The beltloader is in the full down position when parked or moving on the ramp				
12	Rear doors of trucks are closed at all times when elevated and during movement on the ramp				
13	Trucks are driven with body lowered				
14	Vehicle doors are closed after the driver leaves				

20.7 FUELING

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
E. FUELING					
1	Fuel truck approach procedures followed				
2	Fuel truck positioning procedures followed				
3	Fuel truck operating procedures followed				
4	Fueling apparatus operating procedures followed				
5	Fueling clear zone requirements followed				
	Fuel Warning flag, cone, sign, etc. in place at fuel pit				
6	Post fueling inspection walk around completed				
	Personnel				
8	PPE worn				
9	Personnel exhibit appropriate work behavior (e.g., no “horseplay”)				
10	Personnel use correct manual handling, ergonomics (e.g., proper lifting techniques)				
11	Personnel avoid walking where not authorized (e.g., under the fuselage, stepping over towbar, or between carts)				
12	All traffic regulation procedures followed				

20.8 HOUSEKEEPING

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
D. HOUSEKEEPING					
1	The ramp is free of items which could cause FOD				
2	The ramp is swept regularly				
3	The ramp area is free of any fluid spillage				
4	The ramp area is free of unnecessary congestion				
5	Gates are clear of equipment which may block the arrival or departure of an air-craft				
6	Ramp markings (taxi lines, etc.) are clearly identified				
7	Ground equipment is parked within marked areas				
8	All motorized vehicles are backed into parking spaces				
9	When not in use, all vehicles are shut off with parking brake on and transmission in park or neutral				
10	Aircraft chocks are properly stored when not in use				
11	There are sufficient numbers of trash cans, and they are emptied regularly				
12	All vehicles are free of any debris which could interfere with the safe operation of the vehicle or cause FOD				
13	Vehicles are free of evidence of smoking				
14	Towbars are disconnected from tugs when not in use				
15	Pallets/containers are stored off the ground and secured				
16	Emergency exits and equipment access is kept clear				

20.9 LAVATORY AND PORTABLE WATER SERVICE

STATION: DATE: FLIGHTS: EVALUATED BY:		COMPLIANCE			
		Y	N	RA	REMARKS
G. LAVATORY/POTABLE WATER SERVICE					
1	Lavatory vehicle operating procedures followed				
2	Lavatory servicing procedures followed				
3	PPE worn				
4	Personnel exhibit appropriate work behavior (e.g., no “horseplay”)				
5	Personnel use correct manual handling, ergonomics (e.g., proper lifting techniques)				
6	Personnel avoid walking where not authorized (e.g., under the fuselage, stepping over towbar, or between carts)				
7	All traffic regulation procedures followed				
	Potable Water Service				
8	Water vehicle operating procedures followed				
9	Water servicing procedures followed				
10	Potable water units kept away from lavatory units or other sources of contamination				
11	PPE worn				
12	Personnel exhibit appropriate work behavior (e.g., no “horseplay”)				
13	Personnel use correct manual handling, ergonomics (e.g., proper lifting techniques)				
14	Personnel avoid walking where not authorized (e.g., under the fuselage, stepping over towbar, or between carts)				
15	All traffic regulation procedures followed				

21 UNITS OF MEASUREMENT - CONVERSION

Unit Of Measurement	Conversion Factor	Multiply By	To Obtain
Weight	Kilogram (kg)	2.2046	Pound (lb.)
	Pound (lb.)	0.4536	Kilogram (kg)
Length	Metre (m)	39.3701	Inches (in)
	Inches (in)	0.0254	Metre (m)
	Metre (m)	3.2808	Feet (ft)
	Feet (ft)	0.3048	Metre (m)
Capacity Quantity	US Gallon (US gal)	3.7850	Litres (l)
	Litres (l)	0.2642	US Gallon (US gal)
	Imperial Gallon (imp gal)	4.5460	Litres (l)
	Litres (l)	0.2200	Imperial Gallon (imp gal)
Area	Square Metre (m^2)	10.7600	Square Feet (ft^2)
	Square Feet (ft^2)	0.092940	Square Metre (m^2)
	Square Metre (m^2)	1550.00	Square Inches (in^2)
	Square Inches (in^2)	0.000645	Square Metre (m^2)
Volume	Cubic Metre (m^3)	35.3147	Cubic Feet (ft^3)
	Cubic Feet (ft^3)	0.0283	Cubic Metre (cbm or cu^3)
Density	Kilogram per Litre (kg/l)	8.3444	Pounds per US Gallon (lb./US gal)
	Pounds per US Gallon (lb./US gal)	0.1198	Kilogram per Litre (kg/l)
Velocity	Kilometres per Hour (kph)	0.62140	Miles per Hour (mph)
	Miles per Hour (mph)	1.60930	Kilometres per Hour (kph)
	Kilometres per Hour (kph)	0.53996	Knots (kt.)
	Knot (kt.)	1.85200	Kilometres per Hour (kph)
Pressure	Bars	14.500	Pounds per Square Inch (psi)
	Pounds per Square Inch (psi)	0.0690	Bars
Temperature	Celsius (C°)	9/5 + 32	Fahrenheit (F°)
	Fahrenheit (F°)	-32 x 5/9	Celsius (C°)