8.2 Ground operating instructions

The company has adequate and sufficient ground support for the operations it performs.

Handling operators contracted to carry out operations are informed that they have at their disposal the sections of the "Operations Manual" containing the procedures they must comply with in order to provide their services (in Spanish and English), which can be accessed at:

https://clipperjet.eu/seguridad/

The sections of the OM are:

- Section 8.2 of the MOA.
- Section 9 of the MOA.
- Section 7 of each fleet's MOB.

By sending the signed acceptance of the service via email, the handling company ensures that all personnel attending to the Company's aircraft have the necessary information and training to comply with our procedures.

Furthermore, the Company's website provides access to the Safety Policy and the established procedure for reporting incidents.

Whenever there is any disagreement about the service received from the contracted Handling company, the Captain sends a report to the ROV, who then communicates it to the ROT (Responsible for contracting) so that the appropriate measures can be taken.

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8.2.1 Fuel management procedures

A. The management of each airport, fuel suppliers and operators have their own responsibilities with regard to the measures to be taken during fuel loading/unloading. This section sets out CLIPPER NATIONAL AIR's rules for this operation.

The States or the Airport Authority may impose additional requirements, in which case the Station Managers shall establish the appropriate measures for compliance and inform the Captain, as far as he is concerned.

When the aircraft is assigned and delivered for service, loading/unloading operations, even when carried out by personnel not employed by the Company, shall remain the responsibility of the Captain.

The following must be done:

- Check the type of refuelling tank and type of fuel.
- Supervise the refuelling
- Sign and file the refuelling receipt.

The fuels approved for use in each aircraft are listed in its AFM, Section II – Operating Limitations – Fuel Limits for the 525C (Page 2-110-7).

The fuel normally used by the Company is JET A1.

B. Special loading and unloading.

The Company has established special fuel loading/unloading procedures that comply with the conditions set forth in CAT.OP.MPA.200.

a. The Company ensures that a risk analysis of the operation has been carried out,

   Its procedures have been developed (refer to 8.2.1.b of this section), and

   A training programme has been established for our personnel involved in the operation (MOD 2.1.22).

b. The special loading or unloading of fuel/energy used by the Company includes:

   - The loading/unloading of fuel/energy during embarkation, disembarkation or while passengers are on board.

c. The procedures for carrying out this special loading/unloading of fuel, or any modifications thereto, must be approved in advance by the Agency.

8.2.1.a SAFETY MEASURES DURING FUEL SUPPLY AND DISCHARGE

1) Portable fire-fighting equipment must be available, at least for initial intervention in the event of fuel ignition. The fire extinguishers normally fitted to tankers are considered sufficient to meet this requirement.

2) All loading/unloading operations shall be carried out outside, never inside hangars.

3) Extreme caution shall be exercised during loading/unloading operations in stormy weather, and operations shall be interrupted if lightning occurs in the vicinity of the airport.

4) Loading/unloading shall be avoided when any part of the landing gear is abnormally overheated; loading/unloading shall be interrupted or postponed until the abnormal excess heat has dissipated.

5) Special care shall be taken to avoid spillage, and engines shall not be started until spilled fuel has been removed.

6) Electrical and/or electronic systems, except radar, may be operated as necessary during pre-flight operations.

7) Fuel shall not be loaded/unloaded or such operation shall be interrupted when there is an aircraft with engines running in the immediate vicinity of the area.

8) Batteries shall not be installed, connected or removed from the aircraft. Battery chargers shall not be started or disconnected.

9) No electric power generators shall be connected.

10) No power tools, drills or similar equipment that may produce sparks shall be used; nor shall electronic or electric flashes be used to take photographs in the vicinity of refuelling equipment, and in particular, aircraft filling or venting ports.

11) Personnel involved in loading/unloading operations are strictly prohibited from using lighters or matches.

12) The presence of open flames or devices capable of producing them is strictly prohibited in areas located less than fifteen metres from where any refuelling operation is being carried out. Such flames and devices capable of producing them include, but are not limited to:
    i) Lighted cigarettes and pipes.
    ii) Flame heaters.
    iii) Blowtorches.
    iv) Torches.

13) Refuelling operations are prohibited while aircraft engines are running.

14) Prevention of electrostatic discharges**.** During fuel loading/unloading operations, with possible differences in electrical potential, there is a risk of spark discharge. Electrostatic charges can build up on the surface of the aircraft or tanker vehicle, or both, and create hazardous conditions. To prevent this, the tanks, the metal parts of the pipes and the aircraft must be connected to each other, and the tanks and the aircraft must be connected to earth.

15) Safety measures during refuelling shall include guidelines and precautions to be taken with regard to:

- Approach and positioning of the refuelling vehicle:
  - 525C is positioned by the nose
- Establishment of the refuelling safety area:
  - This is marked by cones
- Ground cable connection sequence:
  - This is carried out by the tanker operator.
  - Whenever the hose is in contact with the aircraft, the ground fault switch must be turned on.
- Availability of fire extinguishers.
- The captain is responsible for supervising the fuel supply, paying special attention to verifying the specific amount to be refuelled.
- Ground cable disconnection sequence.
- Departure of refuelling vehicle

8.2.1.b REFUELLING AND UNLOADING OF FUEL WHEN PASSENGERS ARE BOARDING, ON BOARD OR DISEMBARKING.

The Company considers the case of refuelling or unloading fuel with passengers on board, due to the interest in reducing the duration of transit time on land or for the comfort of passengers.

The procedure covers the following conditions:

a. The entire procedure must be carried out with the engines stopped.

b. Ground service activities and work inside the aircraft, such as catering or cleaning, may be carried out provided that they do not create a hazard and allow emergency evacuation through the aisle and emergency exits.

c. The aircraft stairs shall remain deployed and unobstructed.

States, with some exceptions, allow passengers to remain on board the aircraft while refuelling/defuelling is taking place and may establish additional specific rules to those set out below, which must be complied with.

(1) At least one of the two pilots shall remain in the aircraft and, in the event of a fire, shall apply the procedures to extinguish it and initiate and direct the evacuation if necessary.

(2) Two-way communication must be established and remain available between the ground personnel performing the refuelling and the pilot on board the aircraft.

(3) Passengers, personnel and crew must be warned that refuelling/defuelling will take place.

(4) The 'fasten seat belts' signs must be off.

(5) No smoking signs must be illuminated, together with interior lighting to allow identification of the emergency exit.

(6) Passengers must be instructed to unfasten their seat belts and refrain from smoking.

(7) if fuel vapour is detected inside the aircraft or if any other hazard arises, refuelling/defuelling must be stopped immediately;

(8) The floor area around and below emergency exits must be clear of obstacles.

(9) The flight commander and the personnel responsible for loading/unloading shall plan measures to ensure rapid and safe evacuation if necessary.

(10) Passengers with reduced mobility during loading/unloading**.** Provided there are no legal impediments and sufficient personnel are available to ensure their evacuation, the captain, in agreement with ground handling, may authorise them to remain on board, even when the rest of the passengers are disembarking.

(11) If a flight is being operated with a patient on a stretcher, the CM1 shall ask the doctors to prepare the patient for possible evacuation.

8.2.1.c PRECAUTIONS TO BE TAKEN TO AVOID FUEL MIXTURE.

The crew shall:

- Coordinate with the supplier the specific type of fuel required.
- Check the delivery note for the type of fuel supplied.
- Check the refuelling receipt before signing.
- The pilot supervising the refuelling is responsible for these precautions and must sign the delivery note to confirm this.

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8.2.2 Operational safety procedures for the aircraft, passengers and cargo

At each airport, the Company shall engage the appropriate ground handling service, which shall be responsible for identifying hold baggage and ensuring that it has passed security screening before being loaded onto the aircraft.

No passengers, or any part thereof, may be admitted on board, or remain at transit stops, unless there is at least one technical crew member on board who must:

- Ensure a power supply is available on the aircraft
- Have the means to initiate an evacuation
- Be familiar with their responsibilities on board as specified in the Operations Manual
- Be aware at all times of the position of service and cargo vehicles at or near the exits

The following operational procedures must be followed

1. Approach and positioning of teams
   - When approaching and moving away from the aircraft, they must travel at the speed of a person walking (8 km/h).
   - In conditions of low visibility, the driver of the vehicle or equipment shall be guided by another person using standard visual signals until they reach the aircraft.
   - Unattended ramp vehicles and equipment situated near the aircraft must have their engines switched off, be in neutral and have the handbrake applied.
2. Fitting of chocks.

   These shall be fitted by a member of the crew or ground handling staff before passengers disembark and provided that the aircraft's engines have come to a complete stop.

   At stopovers, two chocks shall be placed on the nose wheel, one at the front and one at the rear, and, depending on the gradient of the parking area, another on a main landing gear wheel, to prevent the aircraft from moving.

   They must always be positioned so that they are in contact with the wheels, first on the nose landing gear and then on the main landing gear, three in total.

   At base or in adverse weather conditions, two chocks shall be placed on each wheel, one at the front and one at the rear, to ensure the aircraft remains immobile. Six in total.

   Chocks may only be removed with the Captain's authorisation.

FAILURE TO FOLLOW THIS PROCEDURE MAY RESULT IN THE AIRCRAFT ROLLING UNCONTROLLEDLY, POSING A RISK TO GROUND STAFF AND THIRD PARTIES

3. Placement of cones.

   Once the engines have been shut down and the chocks have been fitted, the traffic cones shall be positioned. These cones serve to mark out the traffic areas around the parked aircraft and shall be removed once the aircraft is ready to be started up.

   One cone shall be placed towards the nose, to the right of the exit door, and another near the tip of the left wing, to facilitate passenger boarding and disembarking.

4. F.O.D.

   Ground handling staff, under the supervision of the Captain, shall ensure that the runway surface is clear of any objects that could cause damage to the aircraft or its engines prior to departure.

   Prior to arrival, the Tower Control assigns the parking bay, and ground handling staff must notify them if the runway is not in a clean enough condition to receive the aircraft.

5. Accident prevention.

   - Vehicles required for operations must not approach the aircraft until authorisation has been received from the ground handling manager.
   - Doors must not be opened or closed until authorisation has been received from the Captain.
   - The ground handling contractor appointed by the Company shall have a coordinator responsible for the ground handling operation. The Company has previously sent a copy of the procedures to be followed during the ground handling of its aircraft.

8.2.2.a. SPECIAL PASSENGERS, INCLUDING CHILDREN/INFANTS, PASSENGERS WITH MEDICAL CONDITIONS AND PASSENGERS WITH REDUCED MOBILITY

a.1. Minors

For transport purposes, a child is defined as a person who has not reached the age of TWELVE on the date of the flight and who is over seven days old.

INFANT (BABY): A child who, on the date of the flight, has not yet reached the age of TWO. Travels **without a seat,** accompanied by a person aged 18 or over.

CHILD: A child who has reached the age of two but has not reached the age of TWELVE on the date of the flight. Travels in a seat.

a.1.1. Oxygen masks per aircraft and flotation devices on board

1) Aircraft 525C is equipped with three additional oxygen masks, used to supply oxygen to infants travelling with an adult; these are fitted to the cabin ceiling.

2) Life jackets on board. Whenever a flight involves flying over water, the supply of life jackets on board must include the necessary number of life jackets suitable for the children travelling.

a.1.2. Seat allocation for minors a.1.2.1.

Infants

Infants do not occupy a seat. The adult responsible for the infant during the flight, where the use of a seat belt is compulsory, must, after fastening their own seat belt, hold the infant in their arms on their lap.

The infant must not be secured using the same seat belt as the accompanying adult.

Three infants may be carried on the 525C aircraft.

a.1.2.2 Seat occupancy by two children (SOD)

No more than one person is permitted to occupy a seat, unless one is an adult and the other an infant.

In order to comply with the regulations governing the distribution of oxygen in the event of cabin decompression, an adult and an infant may only be seated together in a row where an additional oxygen mask is available.

a.1.3. Unaccompanied minors

The Company does not accept this type of travel

a.2. Persons with Reduced Mobility or Passengers with Disabilities

This refers to any passenger:

- Who, due to their special physical or mental condition, requires greater individual attention than is normally provided to other passengers, during the journey, during a possible emergency evacuation and/or on the ground. These special physical or mental conditions are identified on the basis of requests or statements made by passengers and/or their relatives, by a medical authority, or because they have been observed and reported by airline staff or industry associates (agents, etc.)

  Note: The passengers referred to above include those who have serious difficulties in receiving or understanding emergency instructions.

- Whose state of health could deteriorate as a result of air travel.

Passengers with reduced mobility may be classified as follows:

- Ambulatory: Able to board, disembark or move around the aircraft without assistance or with minimal assistance from another person, such as the deaf, the blind or those with mental disabilities.
- Non-ambulatory: Unable to board, disembark or move about inside the aircraft without assistance.

a.2.1. Competent accompanying person

This term refers to a person over the age of 18, of sound mind, who accompanies a passenger with reduced mobility in order to provide any assistance they may require during the journey.

They will be informed of the safety procedures, the location of the emergency exits and the route to be followed in the event of an evacuation; this information will be provided to them on board.

Companions of passengers who are able to walk, including blind passengers, may be under 18 years of age.

Assistance dogs are considered valid accompanying persons and are coded as SVAN. They fall into one of the following categories:

1) Guide dogs: these are dogs that accompany blind or visually impaired people, or those with physical disabilities.
2) Assistance dogs for people with autism: these are dogs trained to help reduce episodes of crisis or anxiety.
3) Service dog: assists with mobility.
4) Medical alert dogs (epilepsy, diabetes, etc.).
5) Signal dog (audible alert).
6) Rescue dogs with the appropriate training to assist the State Security Forces and accompany a rescue team.

a.2.2. Companies specialising in the care and transport of sick and injured people (EATEH)

These are the companies that provide transport on CLIPPER NATIONAL AIR flights, using their own professional staff and medical support teams on board. CLIPPER NATIONAL AIR will enter into cooperation agreements with these companies.

- The staff of these companies will hold accreditation confirming their identity and authorisation to transport sick or injured passengers on CLIPPER NATIONAL AIR aircraft, which they must present to the crew; this accreditation shall be sufficient for the transport of such passengers. (An INCAD will not be required).
- The relevant departments of the Company shall have taken the necessary measures to equip the aircraft with any devices and mechanisms that may be required for this type of transport, without compromising passenger or aircraft safety in any way.

An annex to the contract between CLIPPER NATIONAL AIR and these airlines includes a catalogue of each and every item of auxiliary medical equipment that the company intends to use in its day-to-day operations. This catalogue shall expressly state CLIPPER NATIONAL AIR's authorisation of such equipment prior to its use or carriage in the cabin or hold. Any new equipment that may be required in the future must undergo this procedure. The devices shall bear a label stating their name, period of validity and authorisation by CLIPPER NATIONAL AIR.

a.2.3. Authorisation for transport

Where medical authorisation is required for travel, this may only be granted by doctors authorised by the Company, provided that the maximum passenger capacity is not exceeded, all other safety regulations are complied with, and the necessary formalities are completed.

Authorisation from the Medical Service is the only valid means of allowing a passenger who requires medical authorisation to travel to board the aircraft.

The ROT will state the passenger's name, flight number, date and route, as well as any additional equipment (stretcher, oxygen, etc.) and the type of accompanying person, if required.

Prior to this, the passenger or a representative must have completed the documents and met the requirements set by the Medical Service, which will then decide whether or not to issue the authorisation upon reviewing these.

a.2.4. Medical (Therapeutic) Oxygen

The carriage of medical oxygen requires authorisation from the Medical Service. Only oxygen cylinders supplied by CLIPPER NATIONAL AIR will be permitted. Passengers' own cylinders for use in the cabin will not be permitted on board.

Stretchers are equipped with their own certified oxygen supply and are the only ones permitted on board the Company's aircraft.

a.2.5. Acceptance

These rules and instructions apply exclusively to travel on CLIPPER NATIONAL AIR flights. If an itinerary also includes flights with other airlines, the conditions of carriage may differ, particularly with regard to the provision of equipment and/or additional charges. The requirements for acceptance onto the flight will vary depending on the passenger's condition. (See point A.2.7).

a.2.6. Passenger categories

Passengers with reduced mobility are divided into different classes for the purposes of aeronautical communications. These classes are indicated in airline messages using the AIRIMP code with codes such as:

MEDA: Medical case; those requiring authorisation. STCR:

Passenger: Passenger on a stretcher.

WCHR: Wheelchair – R, via ramp. The passenger can ascend/descend stairs and move to and from their seat in the passenger cabin, but requires a wheelchair for long distances to and from the aircraft; that is, to move along ramps, telescopic jet bridges or boarding ramps.

WCHS: Wheelchair – S, via steps. The passenger is unable to ascend or descend steps, but can move to and from their seat in the passenger cabin; they require a wheelchair to move to and from the aircraft or boarding ramps and must be carried up or down steps.

WCHC: Wheelchair – C, to cabin seat. The passenger cannot move unaided; requires a wheelchair to move to and from the aircraft or boarding ramp and must be assisted up and down steps and to and from their seat in the passenger cabin.

BLND: Blind passenger. May be accompanied by a guide dog. DEAF: Deaf

passenger. May be accompanied by a guide dog. DEAF/BLND: Deafblind

person.

DPNA: Passengers with an intellectual, cognitive or developmental disability who require assistance, such as those with Alzheimer's or ASD. May be accompanied by a service dog.

MAAS: All other types of passengers requiring assistance who are not covered by the above categories. May be accompanied by a service dog.

a.2.7. Passenger categories and requirements set by the Medical Service

a.2.7.1. Non-Medical Cases. Passengers who do not require authorisation for transport and only need special assistance on the ground and/or from the crew during an emergency evacuation or during the flight.

Cat.	Description (1)	Airimp Code	Medical Authorisation	Max. limit per flight type	Max. No. Unaccompanied	Accompanying person Required	Insurance Specials	Group Limits
	Passengers requiring wheelchairs							
A-2	Passengers requiring wheelchairs to access or descend steps: Passengers with hemiplegia. Passengers with an amputation, mutilation or defect of one of their lower limbs who are able to walk unaided but require the aid of walking sticks or crutches. Passengers who are unable to bend one of their lower limbs (whether in a plaster cast or not).	WCHS	NO	NO	NO	YES/NO (3)	NO	NO
A-3	Passengers requiring wheelchairs to move to and from their seat on the aircraft: Paraplegic or quadriplegic passengers. Passengers with both lower limbs amputated, without prostheses. Passengers who cannot bear weight on both lower limbs but can bend their knees (bilateral plaster casts, sprains, etc.).	WCHC	NO	NO	NO	YES/NO (3)	NO	NO

Cat.	Description (1)	Airimp code	Medical Authorisation	Max. limit per type of flight	Max. No. Unaccompanied	Accompanying person Required	Insurance. Asian. Specials	Group Limit
A-4	Passengers deaf, mute or deaf-mute.	DEAF	NO	NO	NO	YES/NO (3)	NO	NO
A-5	Blind passengers	BLND	NO	YES	YES	YES/NO (3)	NO	NO
A-6	Deafblind person	DEAF/ BLND	NO	YES	YES	YES	NO	NO
A-7	cognitive or developmental disability who require assistance, such as those with Alzheimer's or ASD	DPNA	NO	NO	NO	YES/NO (3)	NO	NO
A-8	All other types of passengers requiring assistance who are not covered by the above	MAAS	NO	NO	NO	YES/NO (3)	NO	NO

(1) Special circumstances may result in a passenger being classified in a different category to that which would initially apply. In case of doubt, authorised medical practitioners will be consulted, who will decide which category the passenger should be placed in and which requirements must be met.

(2) In accordance with IATA regulations, travel is not recommended for healthy or premature newborns under seven days old.

(3) They may travel unaccompanied provided the conditions set out in point a.2.8.2 are met.

a.2.7.2. Medical Cases: Passengers requiring special care, both on the ground and on board

Cat.	Description (1)	Incad (2)	Medical Authorisation (2)	Max. Limit By Type of Avion	Max. No. Without Accompanying Person	Accompanying Person Required	Assigned Special Special	Group Limit
B-1	Passengers who require oxygen supply	YES	YES	YES	-	YES	NO	YES
B-2	Passengers who are NOT able to travel seated and need to travel on a stretcher.	YES	YES	YES	-	YES	YES	YES
B-3	Premature babies. The incubator must be a stand-alone model.	YES	YES	YES	-	YES	NO	YES
B-4	Passengers with mental disabilities who are unable to understand and follow instructions.	YES	YES	YES	-	YES	YES/NO	YES
B-5	Passengers not included in other categories, with non-contagious, acute or chronic medical or surgical conditions, who, given the nature of their condition at the time of the flight, may be permitted to board at the discretion of authorised medical staff, as it is not foreseeable that the journey could cause their condition to worsen or lead to death.	YES	YES	YES	-	YES	YES/NO	YES

(1) In case of doubt, authorised medical practitioners shall be consulted, who shall decide which category the passenger is to be placed in and which requirements must be met.

(2) The type of accompanying person shall be as prescribed by authorised medical practitioners.

a.2.7.3. Cases that cannot be accepted on the flight

These are passengers who, due to their physical or mental condition, may cause discomfort to other passengers, or whose condition is so serious that it could lead to complications or death.

In general, such passengers will not be accepted on the flight. In cases of doubt, authorised medical practitioners will decide whether or not to accept the passenger on the flight and what requirements must be met. The following cases are distinguished.

CAT	DESCRIPTION
C-1	People whose unpleasant odours, severe disfigurements or other objectionable characteristics are so unusual that they may cause distress or discomfort to other passengers.
C-2	People with infectious diseases.
C-3	Persons whose behaviour may be dangerous to other passengers. **Note:** Should it be deemed necessary, the intervention of the authorities will be required in order to endorse CLIPPER NATIONAL AIR's actions in the event of any subsequent claim.
C-4	Persons in such a serious condition that travel could lead to complications or death.
C-5	Any passenger with reduced mobility in categories A and B who does not meet the requirements set out in those categories and who may be identified by staff responsible for boarding, public relations or check-in at the airport itself, or by the crew upon boarding.
C-6	Persons clearly under the influence of alcohol, drugs or narcotics.

Note: Should the persons listed above insist on travelling and/or should there be any doubt regarding their eligibility, authorised medical staff shall decide on their acceptance and the requirements applicable to them.

Aircraft type	Maximum total number
All fleets	2

a.2.8.2. Maximum number of individual passengers

travelling WITHOUT an accompanying person

Passengers in categories A-2/A-3/A-4/A-5/A-7 and A-8 may travel unaccompanied in numbers not exceeding those indicated in the table below:

Aircraft type	Maximum number
525C	1

Accompanying persons required

Where the number of passengers in the A categories specified in the previous point is exceeded, accompanying persons will be required as follows:

(a) For passengers in categories A-2, A-3, A-4, A-5, A-7 and A-8, one accompanying person is required for each passenger.

The Company, or if necessary the Captain, may require, due to the passenger's weight or other circumstances, that there be two accompanying persons, in order to facilitate evacuation.

(b) For passengers in categories A-4, A-5 and A-7, one accompanying person is required for every two passengers.

An assistance dog is considered a valid accompanying person for passengers in these categories.

(c) For category A-6 and all B categories, one accompanying person is always required for each passenger.

Passengers on stretchers

The number of passengers on a stretcher on board is limited to ONE for the CESSNA 525C.

a.2.9. Seating allocation criteria for passengers in seats

Seats with access to the emergency exit must be occupied by a passenger who is able to assist in the event of an evacuation, and the following must never be seated in these seats:

(a) Passengers with a physical or mental disability that prevents them from moving quickly.

(b) Passengers with sight or hearing impairments that prevent them from quickly understanding written or verbal instructions.

(c) Passengers who, due to their age or illness, are unable to move quickly.

(d) Passengers who, due to obesity, have difficulty moving or passing through the door.

(e) Children, regardless of whether they are accompanied.

(f) Passengers who are being deported, refused entry at their destination or in police custody.

(g) Passengers travelling with animals.

a.2.10. Seat allocation for passengers on a stretcher

The seats to be occupied by the stretcher and those affected by it will be blocked.

Seats that are blocked but not occupied by the stretcher will be allocated to the accompanying persons of the passenger on the stretcher.

a.2.11. Handling of passengers

In all cases where passengers are to be transported on a stretcher or in a wheelchair, as well as in cases where passengers with reduced mobility cannot board or disembark without assistance, the necessary assistance will be provided by contracted ground handling staff. Boarding shall not be deemed to have taken place until the passenger has been seated by said staff in the previously allocated seat; they shall assist in locating the seat and ensuring the passenger is as comfortable as possible on board.

In cases where it is evident that the seat allocation is incorrect, the Captain may alter it.

In the case of passengers with reduced mobility who are able to board or disembark without assistance, the cabin crew will assist them in taking their seats in their pre-assigned seats on board.

a.2.11.1. Actions to be taken at airports

The ground handling staff will manage all matters relating to the transport of passengers with reduced mobility, from the moment they are checked in until they leave the destination airport.

Outbound stopover Ground

Operations:

They will check that all requirements, restrictions (maximum number accepted) and formalities have been processed and complied with.

They will verify that the passenger is able to travel in accordance with the previously agreed conditions.

They will verify that passengers or groups of passengers with reduced mobility are accompanied by the designated person or persons and are carrying the specified equipment or medication. If this is not the case, they will not authorise transport.

If any requirement is missing, the possibility of fulfilling it immediately or by the time of departure will be assessed. Where time constraints or circumstances make this impossible, the passenger may not be accepted onto the flight.

They shall allocate/reserve the necessary seats. They shall inform the Captain (via the Cargo Manifest or other form). They shall pass the relevant information to the cabin crew. They shall board the passenger(s) with reduced mobility before the other passengers. They shall send the appropriate message to the stopover(s) concerned.

Wherever possible, a passenger travelling with their own folding wheelchair may remain in it, provided it is properly labelled, until they reach the aircraft, at which point it will be stowed in the hold.

Specially trained assistance dogs will be accepted for carriage when accompanying their owners at no additional charge.

Medical staff employed by a company specialising in the transport of patients, if travelling alone to meet the patient or on the return flight once their assignment is complete, may carry bulky and delicate medical equipment in the cabin, with the exception of oxygen.

Transit stop

The ground handling staff will have the appropriate personnel and equipment ready to assist with disembarkation if necessary.

If a passenger needs or wishes to remain on board during a transit stop, due to difficulty moving unaided, the Captain may authorise this, provided that:

- The safety regulations issued by the Company.
- The relevant provisions of the local authorities.
- The regulations on refuelling with passengers on board.
- Other circumstances.

a.2.11.2. Deviation from the flight itinerary

Transit stop or destination

If, during the flight, the aircraft deviates from its planned route, the stopover or destination airport where the aircraft was due to land shall IMMEDIATELY send the appropriate message to the alternate airport.

In the event of a diversion or disruption to the service, the Company will provide the necessary assistance to such passengers, but shall not be obliged to cover the costs of meals and accommodation arising from their disability which exceed those of other passengers.

Crew

In the event of a flight being diverted to an alternative airport where CLIPPER NATIONAL AIR has an assistance agreement in place for that airport, the Captain may, in accordance with the terms of the aforementioned agreement, contact the Assistance Provider and request whatever medical or assistance support is required, such as doctors, ambulance services, hospitalisation, etc.

With regard to any unforeseen charges not paid at the point of departure that may arise, the rules established by our Company shall apply.

a.2.11.3. Destination airport

The destination airport will be notified, by message, of the arrival of the passenger with reduced mobility and will have arranged the necessary services in advance.

These passengers will be the last to disembark.

Disembarkation procedures will be carried out by staff designated for this purpose, using the same resources and equipment as described for boarding procedures. Once the passenger has disembarked, they will be accompanied to the arrivals hall or customs area, where they will be assisted in collecting their luggage and in finding subsequent transport.

a.2.12. Special flights or flights specifically chartered to transport the injured or victims of catastrophic events

In these cases, there are no restrictions; specific instructions received in such circumstances must be followed.

a.2.13. On-board procedures – Normal operations

Passengers with reduced mobility will receive special attention from the crew as soon as this is compatible with their flight duties.

Seating on board

It is important that walking sticks (rigid or telescopic) and crutches used by passengers with reduced mobility are stowed in a suitable place. It has been shown that the use of these items during an emergency evacuation has hindered passengers' exit, rather than speeding it up. Furthermore, there is a risk that if these items are accidentally dropped into the aisle, they may obstruct or completely block it.

Instructions before take-off

In general, passengers with reduced mobility do not present any problems in this regard. The instructions and demonstrations also apply to these passengers; those who, due to their specific circumstances, require it, will be briefed individually, taking their particular circumstances into account.

The cabin crew will be responsible for giving the following instructions to those accompanying groups of passengers with reduced mobility:

They will point out the location of the nearest emergency exit. They will

point out the location of the life rafts and life jackets.

They will hand each accompanying person a 'Safety Instructions' leaflet.

They will ask the accompanying persons to read these and to ask for any further information they may need.

The leaflets will be collected and stored in their designated place to prevent them from being lost.

a.2.14 Emergency Operations –

Evacuation

(a) Individual passengers with reduced mobility.

In the event of an emergency, the evacuation of passengers with reduced mobility shall be carried out as safely and expeditiously as possible, without causing any delay or slowing down the evacuation of the remaining passengers

a.2.15. Passengers affected by incidents/accidents on the ground

If, after boarding the flight, any passenger suffers from illness, an accident, injury or a worsening of their condition, preventing them from commencing or continuing their journey, the following procedure shall be followed.

a.2.15.1. The passenger appears fit to fly and wishes to proceed with the flight

Handling will consult with the airport's Medical Service and refer the case to the Captain for consideration.

a.2.15.2. The passenger does not appear fit to travel

Handling will consult with the airport Medical Service and refer the case to the Captain for consideration.

a.2.15.3. Injuries or accidents occurring on board

In the event that a passenger who has been accepted for carriage as a passenger/sick person/person with reduced mobility experiences a deterioration in their condition whilst on board the aircraft during flight, the Captain may decide to land at the nearest suitable airport, depending on the severity of the incident.

a.3 TRANSPORT OF PASSENGERS NOT ADMITTED AT THE DESTINATION, DEPORTED PASSENGERS AND PERSONS IN CUSTODY

These passengers mainly fall into the following categories:

- Refused Entry
- Deported Persons
- Convicts, Prisoners and Persons Subject to Extradition The procedures to be followed with regard to these travellers are set out below, bearing in mind that they are **always subject to the regulations of the country ordering the passenger's removal.**

a.3.1 Passenger Not Admitted (Inadmissible Passenger, INAD)

In accordance with IATA Resolution 701, these are passengers of a nationality other than that of the airport of arrival, who are not admitted by the competent authority. The usual grounds for non-admission are typically:

- Defects in travel documentation
- A decision by the immigration authorities that the passenger is not acceptable.

If any of the Company's passengers are not admitted at their destination, they will return to the airport of departure on the same aircraft.

The Captain will be informed of this non-admission.

a.3.2 Deported persons (DEPO)

According to IATA Resolution 701, this refers to a person who has been legally admitted to a country by its authorities or who has entered the country illegally, and who is subsequently formally ordered by those authorities to leave the country.

a.3.3 Restrictions on carriage

Given the characteristics of the aircraft used by the Company, unless otherwise ordered by the competent authority, deported persons, convicted criminals, prisoners and/or persons subject to extradition shall not be admitted on board due to the potential danger they pose.

8.2.2.b PERMITTED SIZE AND WEIGHT OF HAND LUGGAGE

- **Classification and definition**.

The dimensions of the item must not exceed 50 x 40 x 20 cm, such that no item may have dimensions (length + width + height) exceeding 110 cm or a weight exceeding 6 kilograms.

Under no circumstances shall the placement of cabin baggage obstruct access to emergency exits or the crew's view of the passenger cabin.

- Limits on the number of items, and their weight and size. Passengers may carry one item of hand luggage within the dimensions described above, a handbag and a coat
- Hand luggage exceeding the permitted dimensions: ground handling staff will initially be responsible for checking the dimensions of hand luggage. The cabin crew will then carry out a further check to ensure that no item on board exceeds the dimensions described above.
- Items exceeding these dimensions or weight limits will be checked into the hold.
- As the aircraft do not have pressurised cargo holds, pets (dogs and cats) must be carried in the passenger cabin accompanied by their owners. They must be over 3 months old, have a veterinary passport, a means of identification and weigh no more than 8 kg. The owner must carry a suitable lead to secure the dog during taxiing, take-off, landing and turbulence. If a carrier is used, the combined weight of the dog and the carrier must not exceed 10 kg.

  Assistance dogs are not subject to weight limits and must sit at their owner's feet without obstructing the emergency exits. The owner must carry a suitable restraint lead to secure the dog during taxiing, take-off, landing and turbulence.

  Assistance dogs, with the exception of rescue dogs, must be trained to assist with the passenger's specific disability by a recognised training organisation (the International Guide Dog Federation (IGDF) or Assistance Dogs International (ADI), or hold a guide dog user's certificate issued by the Spanish National Organisation for the Blind (ONCE)). In addition, the passenger must also have the necessary third-party liability insurance, identification and veterinary requirements for the dog to travel.

  Rescue dogs must be identified, meet the necessary veterinary requirements for travel and hold an official training certificate.

  Certain small pets that meet the above requirements and are harmless may be accepted.

8.2.2.c LOADING AND SECURING OF ITEMS ON THE AIRCRAFT

The cargo holds of the Company's aircraft are not accessible to the crew during the flight, are not pressurised and do not have any warning system linked to the cabin (except for the 525C, which has a smoke detector with a cabin warning system).

c.1. Passenger cabin.

To ensure that hand luggage and other items are correctly stowed, the following measures must be observed:

- Each item carried in the cabin must be placed only in a location capable of securing it;
- Luggage must not be placed under the seats.
- No items must be placed in toilets or next to bulkheads.
- Luggage and other items must not be placed where they may obstruct access to emergency equipment; and
- Before take-off and landing, the First Officer must ensure that luggage is stowed where it will not obstruct an evacuation or cause injury (due to falling or other movement).

c.2. Hold.

- Care must be taken with the doors during loading and unloading operations.
- Precautions must be taken when manoeuvring bulky or heavy goods inside the hold to avoid damage to the floor.
- If liquids are spilled in the holds, this must be reported immediately to prevent damage to the floor or electrical wiring.
- Any package labelled as dangerous goods must be removed immediately.
- Proceed with caution if a package is found to be in poor condition. Such packages must not be transported, as they may cause damage.
- The runway surface must be clear of any objects that could cause damage to the aircraft or its engines.
- Before the aircraft departs, a visual inspection shall be carried out to ensure that all service doors and holds, as well as all panels, are closed, secured and free of FOD.

8.2.2.d. POSITION OF GROUND EQUIPMENT

The mobile units that normally approach the aircraft are:

- Passenger service van
- Cabin service van
- Handling van
- GPU
- Waste container and
- Push-back

Responsibility for their operation lies with the ground handling agent serving the aircraft

Mobile ground equipment, operated solely by Company personnel or appropriately trained ground handling agents, shall not approach the aircraft until all engines have stopped (anti-collision lights switched off) and chocks are in place, or authorisation has been given by the Captain. The speed of this equipment shall always be reduced. Should an engine need to remain running, the mobile equipment shall approach the aircraft from the side where the engine is shut down. In any case, the flight crew and ground staff shall agree in advance on the course of action to be taken.
A safe distance must always be maintained between ground crew and the aircraft to prevent any damage caused by the movement of any part of the aircraft during loading, unloading, refuelling, etc.
Ground crew should not encroach upon areas designated for aircraft taxiing and passenger boarding/alighting.

8.2.2.e OPERATION OF AIRCRAFT DOORS

The passenger cabin door shall be opened and closed only after authorisation from the Captain.

Neither the passenger door nor the cargo door may be opened until the engines have been shut down and the chocks are in place; these same conditions must be met for the cargo door before the engines are started.

The passenger door may remain open, with the right-hand engine running, to allow the cabin to be prepared. It shall be closed once all passengers are on board, before the left-hand engine is started.

They are operated by the crew from inside the aircraft. In an emergency, they can be opened from the outside.

The doors on all the Company's aircraft are operated in the same way:

To open: Turn the lever clockwise and push outwards

To close: Close the door and turn the lever anti-clockwise.

Tankers must be positioned so that:

i) They do not obstruct access to the aircraft by rescue and/or fire-fighting vehicles.

ii) Their exit route remains clear in the event that they need to move away quickly in an emergency. Loading/unloading will be suspended if any vehicle obstructs the rapid evacuation routes for the tanker vehicles.

iii) They do not obstruct the evacuation of the aircraft in the event of a fire on board.

iv) The engines of these vehicles must not be positioned beneath the aircraft's wings.

Vehicles used for operations other than fuel loading/unloading must comply with the provisions of the previous point. They must be positioned so as not to impede the operation of fire-fighting vehicles or the movement of tankers.

The exhaust systems of all vehicles required to operate in the refuelling area must be carefully maintained to eliminate any sources that could produce sparks or flames capable of igniting the fuel or its vapours.

Auxiliary power units (APUs), whether ground-based and/or on-board, shall be connected and started up before refuelling begins and shall not be switched off or disconnected until refuelling has been completed.

8.2.2.f RAMP SAFETY, INCLUDING FIRE PREVENTION, AND JET AND SUCTION AREAS

All personnel carrying out work on the apron must wear a high-visibility vest and exercise extreme caution around mobile equipment moving across the apron.

When ground support equipment is approaching or leaving the aircraft, it must not be driven at a speed greater than that of a person walking.

Before moving ground support equipment, an inspection must be carried out around the aircraft to ensure it is free of FODs.

When positioning a piece of equipment, particular care must be taken to ensure there is adequate clearance from vehicles, aircraft or other equipment.

Where visibility in critical areas is limited, a person shall direct the operation. Standard hand signals shall be used to guide the ground vehicle.

The guide shall position themselves so that they can accurately judge the available space, remain visible and be able to communicate signals to the vehicle operator at all times. The operator shall stop immediately if they lose visual contact with the guide.

Motorised equipment must check its brakes before entering a restricted area and again before reaching the side of the aeroplane.

Vehicles fitted with rubber protective bumpers must not press them against the aircraft fuselage, to prevent damage to the aircraft.

All equipment, except that required for departure, must be positioned behind the restriction line before commencing the pushback of the aircraft.

In an open departure area, the equipment shall be positioned in such a way that there is sufficient space for the aircraft to manoeuvre.

f.1. FIRE PREVENTION IN AREAS AT RISK OF FIRE AND IN REFUELLING AREAS.

Fire prevention is more important than firefighting. The following considerations shall be taken into account to prevent and protect against fire:

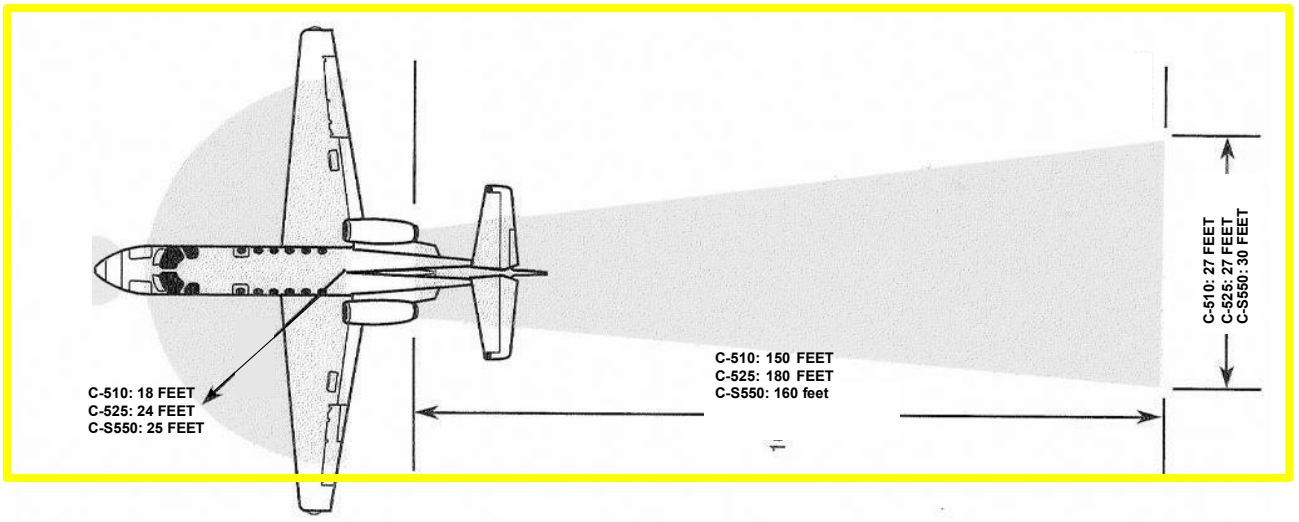
- The accumulation of rubbish shall not be permitted, unless it is placed in suitable containers.
- Any suspicion or knowledge of a fire must be reported immediately.
- Any fault in the electrical wiring must be reported immediately.
- Smoking is not permitted on the ramps or in any vehicle situated on the ramps.
- Staff must be familiar with the location of fire-fighting equipment, fire alarms, emergency switches, etc. must be known to staff.
- Access to fire-fighting equipment, fire alarms, emergency switches, etc. must not be obstructed.
- If a fire is observed on a parked aircraft, the people inside must be notified immediately and the aircraft must be evacuated.

- Whilst the fire is being brought under control, if there is any doubt as to the safety of staff, any fire extinguisher from ground support equipment or those available on the aircraft may be used.
- Where possible, the aircraft doors must be kept closed.
- If a fire breaks out in any ground support equipment, it shall be tackled using the fire extinguishers available on the apron or those on the ground support equipment itself. As soon as possible, the ground support equipment shall be moved away from the vicinity of the aircraft.
- No ground support equipment shall operate in the vicinity of a fuel spill.
- Staff must be familiar with the types of fire-fighting equipment available and must be trained in their use.

f.2. PRECAUTIONS IN THE JET AND SUCTION ZONES

On the apron whilst the engines are running, ground staff must exercise extreme caution within the jet blast zone. The following safety distances must be maintained:

C-525C: OM Figure 1-5 (Page 1-6)



8.2.2.g. PROCEDURES FOR START-UP, RAMP EXIT AND ARRIVAL, INCLUDING TOWING IN REVERSE AND TOWING OPERATIONS

The auxiliary power unit or ground power unit shall be used as a source of power on the ground prior to start-up.

If these units are out of service, the aeroplane's engines shall be started by battery in accordance with Section 3 of the AFM and the QRH (Battery Start)

g.1. Start-up.

Engine start-up may pose a hazard to ground personnel and objects in the vicinity of the aeroplane.

The Captain shall take into account the departure time, the slot and other relevant factors when initiating engine start-up.

Before starting the engines, the Captain shall ensure that the aircraft's tow hooks are on board and that the start-up area is clear.

g.2. Ramp departure procedure.

Before commencing taxiing, the appropriate clearance must be obtained from the Control Tower and, in addition, ground staff must confirm that the area is clear and unobstructed.

The Captain will notify ground handling/maintenance that the aircraft is ready for start-up, signalling that the brakes are applied and the beacon is on.

Once the aircraft has started, the handling/maintenance staff will remove the GPU equipment. They will check that the area is clear and give the signal that the aircraft is ready to taxi.

When commencing taxiing, the Captain must assess the situation around the aircraft, particularly in the vicinity of other aircraft and objects, maintaining an appropriate taxiing speed and engine power that does not cause excessive noise; this is especially important when taxiing out from the apron.

The captain is responsible for ensuring that the aircraft does not come into contact with any object whilst manoeuvring under engine power.

The 'aircraft clear' signal must be given by ground staff before commencing taxiing.

The taxi lights shall be switched on once the 'aircraft clear' signal has been received, before releasing the brakes and commencing taxiing.

It is very important that all flight crew members remain alert during taxiing, particularly when conditions are adverse, for example: low visibility, an unfamiliar airport, etc. The reading of checklists must not be started or continued whilst conditions requiring special attention persist.

If there is any doubt regarding the aircraft's position at the airport, the aircraft must be stopped immediately and ATC or runway control must be informed.

Surface markings must be strictly followed. Stop lights must not be overshot.

Taxiways vary from place to place and are not always guaranteed to be free of obstacles. They must be used with caution as a guide for positioning the aircraft.

The captain, when guided by markings on the apron, is responsible for the aircraft's manoeuvres.

Procedures for push-back using external means and towing

When a push-back is required, the following procedure shall be followed:

1) The personnel attending to the towing, with the aircraft braked or with chocks fitted to the main landing gear wheels to prevent the aircraft from rolling backwards, shall insert the towing ramp under the nose wheel and secure it with a catch.
2) They shall inform the Captain: "Chocks off and release the brakes".
3) They shall move the aircraft to the departure point, stop it, and instruct the pilot to apply the brakes before removing the ramp from the nose wheel and moving the tow bar away.

Authorisation for taxiing the aircraft

CLIPPER NATIONAL AIR aircraft shall be taxied on the movement area of an aerodrome at all times by members of the flight crew, unless the person at the controls:

1) has been duly authorised by CLIPPER NATIONAL AIR or an agent designated by it and is competent to:
   i) taxi the aircraft
   ii) use the radio telephone and
2) has been briefed on the general layout of the aerodrome, taxiways, signs, markings, lights, air traffic control instructions, phraseology and procedures, and is able to follow the practical rules for the safe movement of aircraft around the aerodrome.

g.3. Arrival procedures.

With the aeroplane braked, the engines and the beacon switched off, the Captain signals for chocks. The ground handling staff position the chocks and signal to the Captain to release the brakes so that he may authorise the opening of the doors.

The number of chocks and their placement are set out in point 8.2.2 of this section.

g.4. Parked aircraft

When an aircraft is parked, the main landing gear wheels must have chocks fitted.

8.2.2.h. MINOR AIRCRAFT MAINTENANCE

The Captain must request any necessary services from the ground handling staff, such as:

- De-icing / Anti-icing
- Maintenance services
- Fuel
- Catering
- Oxygen
- Cleaning, etc.

These services will be supervised by a member of the crew and invoiced by the ground handling agent, under the framework agreement it has with the Company, which provides for this possibility.

8.2.2.i DOCUMENTS AND FORMS FOR AIRCRAFT HANDLING

General

Reports, forms and, in general, all documentation must be completed in pen (in very clear handwriting, preferably in capital letters) and, where required, signed.

Unless otherwise specified, the date shall be that of the day to which the departure time relates, and the time shall be in GMT

Each leg of a series of flights is considered a separate flight.

The following documents and forms are required for ground operations:

- **Cargo manifest**. This is provided by CLEARWAY's flight dispatch; its details must match those in the PVO and must be approved by the pilot-in-command.

- Cargo and passenger information is included in the 'GenDec', which is sent to the ground handling agents involved in the operation and to the flight dispatcher, who uses this information to prepare the cargo manifest to be sent to the crew, together with all flight documentation.

  The number of passengers, their mass and/or the weight of the cargo indicated in the 'GenDec' must match the details stated on the cargo manifest.

- **Information for the crew.** The 'Pilots' Info' contains all the details of the flight they are to operate, including planned stops and timings, passengers, any special cargo, hotels, fuel, etc.
- **Fuel sheet**: this is completed by the person responsible for fuel supply. The Captain confirms that he has checked it by signing the delivery note. The Captain will keep the receipt, which he will place in the flight envelope.

- **Medical assistance report.** This is signed by the doctor responsible for attending to the patient on medical flights.
- **Safety lists:** Once passengers and cargo have been unloaded, the lists described in the safety procedures shall be completed by the relevant personnel.

8.2.2.j. SPECIAL CARGO AND CLASSIFICATION OF CARGO COMPARTMENTS.

The Captain receives information regarding the carriage of special cargo via the 'Flight Info' and the relevant details from the 'GenDec', which he receives with the flight documentation.

Special cargo PERISHABLE

GOODS

Perishable goods are any goods that must be transported without delay, as otherwise they lose their usefulness – and therefore their value – either because they must be delivered within a specified timeframe, or because they could deteriorate as a result of changes in temperature and humidity and the passage of time

Examples of perishable goods include:

- Foodstuffs such as: meat, fish, fruit and vegetables, flowers, etc.

Human Remains

The Company will agree to transport human remains (HUM) provided the following restrictions are met:

1. With the exception of cremated human remains, they must be contained in an inner lead or zinc coffin, hermetically sealed within a wooden coffin. The wooden coffin must be protected by an outer canvas covering so that its contents are not visible.
2. Cremated remains must be contained in funeral urns protected against breakage by suitable packaging.
3. They must be handled with respect and kept covered during loading and unloading.
4. They must not be transported in the same hold as any perishable goods.
5. The captain must be informed, via his flight 'info' and the Gen Dec, of the presence of human remains, their weight and their exact location on the aircraft.

Human remains shall not be accepted unless the relevant documentation is attached to the coffin or casket.

Compatibility between perishable goods and human remains

The following table shows the various perishable goods or human remains that may be loaded together in the hold, and those that may not.

Type	MEAT	SEAFOOD	FRUIT & VEGETABLES	FLOWERS	HUM
MEAT	☑	☑	☑	☑	✗
SEA FOOD	☑	☑	☑	☑	✗
FRUIT & VEGETABLES	☑	☑	☑	✗	✗
FLOWERS	☑	☑	✗	☑	✗
HUM	✗	✗	✗	✗	☑

Non-perishable goods

Non-perishable goods are defined as any goods that do not risk losing their usefulness or value if transported with a delay

Aircraft spare parts, company equipment and mail (non-hazardous goods) CO-MAIL =

Company mail

CO-MAT = Company materials

Company mail and materials shall be understood to mean internal consignments of mail and materials, such as documents, stock, maintenance parts, cleaning supplies or other items, which are to be delivered to the company itself or to the company contracted to perform a specific service (e.g. a cleaning company).

Both internal mail and company materials carried on the company's aircraft shall be subject to security checks before being loaded.

The Company must ensure that any co-mail or co-mat consignment made on its behalf by a contracted company is inspected before being loaded onto the aircraft.

All requests for the transport of aircraft spare parts must originate from the Company's maintenance department. The transport of CO-Mail and spare parts is permitted on aircraft, subject to space and weight restrictions.

The Gen Dec form, containing the relevant information, must be completed and sent to the contracted handling agent at the airport of departure.

You must provide a description of the part, its dimensions and weight, as well as a declaration that the goods are non-hazardous.

Maintenance will ensure that the spare parts have been loaded onto the aircraft, that they have been properly secured and that a ‘spare part’ label has been attached.

Post

The Company accepts and carries commercial mail or parcels

Wheelchairs

Given the size of the hold and the door, only folding wheelchairs can be carried.

Live Animals (AVIS)

Animals may travel in the passenger cabin provided they do not disturb other passengers

In all cases, they must be secured and accompanied by the relevant documentation issued by the freight forwarder.
For the carriage of live animals, please refer to MOA 8.2.2.b.

Cool boxes containing organs for transplantation.

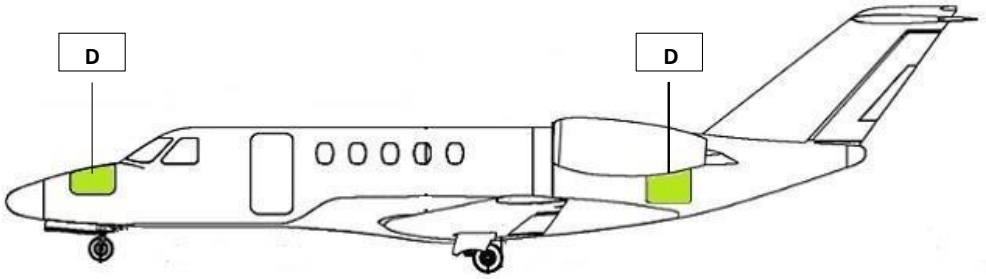
These cool boxes must be carried in the passenger cabin as the cargo holds are not pressurised. Surgical equipment will be transported in them. These are specially chartered flights

j.1. Classification of cargo holds

Cargo holds are classified according to their accessibility during the flight, the possibility of being isolated in terms of ventilation, and the type of fire-extinguishing system available to deal with any fires that may occur inside them.

CESSNA 525-C

It has two Class 'D' cargo or luggage compartments; these are not accessible from the cockpit, are neither pressurised nor ventilated, and are fitted with fire alarms.



The load data regarding weight, volume and floor strength are set out in Section VI of the AFM, pages 6-110-20, and are as follows:

NOSE: has a capacity of 400 pounds, within a volume of 15 cubic feet.
TAIL CONE: has a capacity of 600 pounds over an area of 50 cubic feet.

8.2.2.k. MULTIPLE OCCUPANCY OF AIRCRAFT SEATS.

Multiple occupancy of aircraft seats by both passengers and crew members is prohibited.

Multiple occupancy of seats is only permitted when one of the occupants is an adult and the other is an infant.

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8.2.3 Denied boarding procedures

The company will not allow any person to enter under the influence of alcohol or drugs, in such a way that may affect the safety of the aircraft or its occupants.

Before departure, the Commander is empowered to prevent boarding of passengers who are under the influence of alcohol, drugs, etc., and those who could be dangerous or a nuisance to the rest of the passengers. The Commander may seek advice from airport health personnel before making such a decision.

These points do not apply to patients undergoing medical care and who have their release form and/or the corresponding medical company.

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8.2.4 De-icing and de-icing prevention on the ground.

The applicable procedures shall be those established in the AFM and/or OM for each type of aircraft for Special Operations and Cold Weather Operations.

Considerations to take into account when assessing aircraft icing:

1) It is necessary to have a clear idea of the adverse effects of roughness on the exterior surface of the aircraft on its performance.

2) It is not advisable to request de-icing services without knowing the procedures and products used.

3) It is necessary to know the most critical areas of the aircraft in terms of icing, so that they can be properly treated to avoid possible deterioration during de-icing operations and so that they can be properly examined during pre-flight inspections.

4) If deemed appropriate, additional pre-flight inspections should be carried out without hesitation.

5) There are several variables that affect the effectiveness of anti-icing fluids.

6) The effective time of anti-icing fluids cannot be determined with absolute accuracy, as there are many variables that influence this time.

7) Anti-icing treatment should be carried out as close as possible to the time of take-off.

8) Engines should not be started if there are ice fragments on the surface that could be ingested.

9) Certain operations can cause recirculation of ice crystals, snow or a mixture of water and ice.

10) The operation of some equipment in the vicinity of the aircraft may facilitate the accumulation of snow or ice in critical areas.

11) It is recommended to check for ice accumulation on the profiles during taxiing.

12) Immediately before take-off, a final visual inspection must be carried out from the cockpit. Do not take off if you cannot ensure that the aircraft is clean.

Definitions:

Anti-icing: the process of protecting the aircraft to prevent contamination due to existing or expected weather conditions, generally by applying anti-icing fluids to uncontaminated surfaces of the aircraft.

Conditions conducive to ice formation on aircraft ground surfaces: freezing fog, freezing precipitation, frost, rain or high humidity (on wings soaked in cold), hail, ice pellets, snow or a mixture of rain and snow, etc.

Pre-take-off check: the flight crew should continuously monitor weather conditions after de-icing/anti-icing treatment to assess whether the maintenance time applied is still adequate. Within the aircraft's HOT and before take-off, the flight crew must check the aircraft's wings or representative surfaces for frozen contaminants.

Contamination: Any type of frozen or semi-frozen moisture such as frost, snow, sleet or ice.

Contamination control: an inspection of the aircraft to check for contamination and determine whether de-icing is necessary.

Pre-take-off contamination check: a contamination check of treated surfaces, carried out when the HOT has been exceeded or if there is any doubt regarding the continuation of the anti-icing treatment applied. This is normally carried out externally, just before the start of the take-off run.

De-icing: the process of removing frozen contamination from aircraft surfaces, usually by applying de-icing fluids.

De-icing/Anti-icing: Combination of de-icing and anti-icing procedures, carried out in one or two stages.

Cold soaked surface frost (CSSF): frost developed on aircraft surfaces that have been cold soaked by sublimation of moisture from the air. This effect can occur at ambient temperatures above 0 °C.
Cold-soaked aircraft surfaces are more common on aircraft that have recently landed. The external surfaces of fuel tanks (e.g. wing skins) are typical areas for CSSF formation (known in this case as cold-soaked fuel frost (CSFF)), due to the thermal inertia of very cold fuel remaining in the tanks after landing.

Clear ice: a layer of ice, usually transparent and smooth, but with some air pockets. It forms on exposed objects whose temperatures are at, below, or slightly above freezing, due to the freezing of drizzle, supercooled rain droplets, or rain. Clear ice is very difficult to detect visually.

Anti-freeze fluid: includes, but is not limited to, the following:

1. Normally, Type II, III or IV fluid (pure or diluted), applied without heating (*);
2. Mixture of Type I fluid and water heated to a minimum of 60 °C at the **nose.**

   (*) When de-icing and anti-icing are performed in a single process, Type II and Type IV fluids are typically applied diluted and heated.

3. Type II, III or IV fluid (pure or diluted). De-icing fluid is normally applied heated to ensure maximum efficiency and its freezing point must be at or below the outside air temperature (OAT).

Ground Ice Detection System (GIDS): a system used during ground operations to inform personnel involved in the operation and/or the flight crew of the presence of frost, ice, snow or sleet on aircraft surfaces.

Liquid water equivalent (LWE) system: an automated weather measurement system that determines the LWE precipitation rate in icy or freezing precipitation conditions. The system provides the flight crew with continuously updated information on the protective capacity of fluids in different weather conditions.

Lower operating temperature (LOUT): the lowest temperature at which a fluid has been tested and certified as acceptable in accordance with the appropriate aerodynamic acceptance test, while maintaining a freezing point buffer of not less than:

1. 10° C for a Type I fluid; or
2. 7 °° °C for Type II, III or IV fluids.

Maximum effectiveness time (Hold Over Time): the period of time during which an anti-icing fluid provides protection against frozen contamination to the treated surfaces of the aircraft. It depends, among other variables, on the type and intensity of precipitation, OAT, wind, the particular fluid (or fluid type), the aircraft design and the aircraft configuration during treatment.

Post-treatment, de-icing or de-icing/anti-icing verification: an external check of the aircraft after treatment has been completed by qualified personnel and from suitably elevated observation points (e.g. from the de-icing/anti-icing equipment itself or other elevated equipment) to ensure that the aircraft is free of frost, ice, snow or slush.

ANTI-ICE CODES

At the end of the anti-icing treatment, qualified personnel provide the anti-icing code to the flight crew as follows:
"fluid type / fluid name (except for Type I) / concentration (except for Type I) / local time at start of anti-icing / date (optional) / the statement 'post-de-icing/anti-icing check completed' (if the check was completed).

Example:
"TYPE II / MANUFACTURER, BRAND X / 75% / 1335 / 15FEB20 / POST-DE-ICE CHECK / ANTI-ICE COMPLETED".

When a two-step de-icing/anti-icing operation has been performed, the anti-icing code must be determined by the fluid from the second step.

A) TRADE NAMES

The most commonly used types for de-icing and anti-icing, according to fluid type, are:

Type I:

- Hoechst: Safewing DG I and Safewing MP I.
- Kilfrost: DF.
- BASF: Aerex 102.

Type II and III:

- Hoechst: Safewing MP II.
- Kilfrost: ABC-3.
- UCAR: AAF ULTRA.

Type IV:

- Hoechst: Safewing MP IV.
- UCAR: AAF ULTRA PLUS.

B) CHARACTERISTICS

Type I fluid.

It has a high glycol content and very low viscosity, as it does not contain thickeners, which limits its effectiveness as an anti-icing agent.

It is mainly used to remove ice, snow or slush from the surface of the aircraft before departure, by spraying it, either alone or mixed with water, at a temperature between 70 and 80 degrees Celsius and at a distance of about three metres.

It does not alter aircraft performance, and if atmospheric conditions allow a holdover that covers the time between application of the fluid and the scheduled take-off time, its use is the preferred option (see Annex II to the MOA).

Type II, III and IV fluids.

These are normally used as anti-icing fluids to ensure that the aircraft remains clean from de-icing until the scheduled take-off time.

The atmospheric conditions and the estimated time between de-icing and take-off determine the type of fluid and its concentration (refer to the Holdover tables in Annex II to the MOA).

They are sprayed cold onto the surface of the aircraft approximately three minutes after cleaning and are not compatible with each other, so they cannot be mixed.

Their high viscosity reduces aircraft performance and requires inspection and cleaning, normally after every three applications.

If Type I fluid is not available, they can be used for de-icing following the same procedure.

When there is precipitation or freezing conditions, or a risk of these occurring during take-off, the aircraft surfaces must be treated with anti-icing in accordance with GM2.CAT.OP.MPA 250 (b)(3).

The de-icing and anti-icing procedure may be carried out in one or two steps, depending on weather conditions, the availability of ground equipment, the types of fluids available and the protection time required according to the Holdover tables.

The one-step procedure means that de-icing and anti-icing are performed at the same time, using a mixture of de-icing/anti-icing fluid with water heated to a minimum of 60 °C.

Mixture concentration (fluid/water) % vol	Lower temperature limit for application (OAT)
50	-3
75/25	-14°C
100	-25

The two-step procedure separates the two functions. First, de-icing is performed using hot water alone or mixed with fluid, as in the previous case. Then, once de-icing is complete, a mixture of anti-icing fluid with or without water is sprayed onto the aircraft surfaces.

This second step must be carried out within a maximum of 3 minutes, before the liquid from the first step can freeze.

The fluid used for anti-icing will depend on the time required to protect the aircraft and the prevailing weather conditions (Holdover Tables).

All restrictions published by the fluid and aircraft manufacturers must be observed to prevent the formation of residues.

C. EFFECTS ON AIRCRAFT PERFORMANCE

The pilot in command shall not commence take-off unless the external surfaces are clear of any deposits that could adversely affect the performance and/or control of the aircraft.

TAKEOFF PERFORMANCE – TYPE II, TYPE III, AND TYPE IV FLUIDS

Established in Section VII of each aircraft's AFM:

MODEL 525 C.

Precautions in accordance with Section VII of the AFM (Page 7-210-1,2,3 and 4)

De-icing/anti-icing operations on the ground.

Ice formation can occur whenever there is high humidity with temperatures of +10 °C or less. Type I de- icing fluids and Type II, Type III or Type IV anti-icing fluids may be used sequentially to ensure de-icing and anti-icing of critical fuselage components.

Note: It is recommended that flight crews re-familiarise themselves each season with the following publications for expanded de-icing and anti-icing procedures:

- Cessna Maintenance Manual, Chapter 12.

De-icing/Anti-icing Procedures (Type I, Type II, Type III, and Type IV Fluids). ONE-STEP DE-ICING

(Refer to item B in this section)**:**
Type I fluid is used to remove ice, sleet and snow from the aircraft and to provide minimum anti-icing protection. (Refer to the Holdover tables in Appendix II to the MOA).

TWO-STEP DE-ICING/ANTI-ICING (Refer to point B of this section):
May be used to ensure that the aircraft remains clean after de-icing. Type II, Type III or Type IV fluids are used to provide additional anti-icing protection.

CAUTION

Type I, Type II, Type III, and Type IV fluids are not compatible and cannot be mixed. In addition, most manufacturers prohibit mixing brands within a type.

Line personnel must be supervised by the crew to ensure the proper application of de-icing or anti-icing fluids.
Refer to Annex II of MOA Point "B" 525C.

Ensure that the aircraft is always sprayed from the front. Spraying from the rear may force the fluid into aerodynamic areas where it may not drain from the aircraft.

NOTE
The first area to be treated with de-icing/anti-icing should be easily visible from the cockpit/pilot compartment and should be used to provide a conservative estimate of unseen areas of the aircraft before commencing take-off roll.

The protection times in the Holdover tables in Annex II to the MOA are only estimates and vary depending on many factors, such as temperature, type of precipitation, precipitation rate, wind, and aircraft surface temperature. The times begin when the last application begins.

Refer to GM3.CAT.OP.MPA.250(a)(3).

CAUTION
The Company is responsible for ensuring that the Holdover tables are kept up to date.
The tables are for use in departure planning only and should be used in conjunction with pre-takeoff contamination control procedures.

NOTE
The tables do not apply to fluids other than SAE or ISO Type I, Type II, Type III or Type IV FPD.
The responsibility for their application lies with the Company.
The freezing point of Type I fluid mixture must be at least 10 °C (18 °F) below the current OAT. The freezing point of Type II, Type III and Type IV fluid mixtures must be at least 7 °C (13 °F) below the current OAT.

SPRAYING TECHNIQUE - TYPE I FLUID.

Type I fluid must be sprayed into the aircraft in such a way as to minimise heat loss from the aircraft. If spraying is carried out with the engines running, the engines must be at idle with all engine bleeds off. If possible, the fluid should be sprayed in a solid cone pattern of large, coarse droplets at a temperature of 70°C to 80°C at the nozzle. The fluid should be sprayed as close as possible to the aircraft surfaces, at least three metres away if a high-pressure nozzle is used. Refer to Annex II of the MOA Point. "B" for essential areas to be treated with de-icing/anti-icing.

Pre-take-off contamination check: icing conditions.

When icing conditions exist, in addition to the tactile check required in Section II of the AFM, Take-off and Landing Operating Limits, the crew must perform a visual check for contamination within 5 minutes prior to take-off, preferably just before taxiing to the active runway. Visible areas of the aircraft, such as the wing, must be checked to ensure that they are free of ice, sleet or snow and that de-icing/anti-icing fluids continue to protect the aircraft.

Takeoff performance – Type II, Type III and Type IV fluids.

Refer to GM2.CAT.OP.MPA.250 (c).

Takeoff performance is degraded when Type II, Type III, and Type IV fluids are on the airplane. The fluid that remains on the airplane during takeoff causes the elevator forces at rotation to be increased and takeoff distance to be increased.

Takeoff is limited to flaps 0° configuration, per Section II, Takeoff and Landing Operational Limits when Type II, Type III, or Type IV anti-ice fluid has been applied to the airplane.

The following procedures are required when departing with anti-ice fluid on the airplane:

1. *Use Flaps 0°.*
2. *Determine the normal Flaps 0° takeoff field length, and apply any adjustments to speed and field length required by runway gradients or runway contamination. Multiply the resulting takeoff field length by 1.15.*

CAUTION

Anticipate a heavier than normal elevator force at rotation. Up to a 75 lb. pull force may be required. Even with the increased pull force, the airplane may rotate slower than normal. The elevator forces will return to normal shortly after liftoff.

POST-FLIGHT INSPECTION - TYPE II, TYPE III AND TYPE IV FLUIDS.

Cessna recommends that all operators using Type II, Type III or Type IV fluids for antifreeze perform periodic visual inspections to detect antifreeze fluid residues (Refer to GM2.CAT.OP.MPA 250(h).
The visual inspection should include:

1. Along the rear wing spar area with the flaps extended.
2. Around the perimeter of the aileron surface.
3. The spaces around the elevator and the elevator adjustment tab.
4. The spaces around the rudder and rudder trim tab. Initially, these inspections should be performed after a maximum of three applications of Type II, Type III, or Type IV fluid. If the aircraft is washed or if Type IV fluid is used for de-icing, the frequency of inspections may be reduced.

Type I fluid is used for de-icing, the inspection frequency may be reduced. The operator should determine the frequency of inspections based on the results of residue inspections, the frequency of de-icing/anti-icing operations, and the frequency of aircraft washing.

D. EFFECTIVE TIME.

This is the estimated time during 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 the type of fluid used, its concentration, the outside ambient temperature and the prevailing weather and precipitation conditions.

These times are set out in the Holdover tables in Annex II to the MOA and are updated annually to reflect advances and improvements in the fluids used.

E. PRECAUTIONS DURING USE.

These fluids are toxic; avoid breathing them during application and contact with the eyes or skin.

Do not spray directly onto pitot and static tubes, windows, air conditioning intakes and cockpit windshields.

F. AIRCRAFT DE-ICING/ANTI-ICING PROCEDURES.

1) Carefully plan de-icing activities on the ground with reference to the above recommendation tables to ensure that the appropriate materials and equipment are available according to the weather forecast and that responsibilities have been assigned and understood. This should include a guarantee from the service provider that, in matters that cannot be verified by the pilot in command, the provider complies with satisfactory quality standards in terms of procedures and facilities used.

2) Ensure that de-icing service operators do not apply the data in Table 8.2.B "Amount of Fluid for Anti-icing with Thickened Fluids" in Appendix B of AS6286.

3) Ensure that the fluid concentrations used will provide an adequate suitable holdover time.

4) Organise de-icing and anti-icing processes so that final treatments are carried out as close to departure time as possible.

5) Arrange for the aircraft to be positioned as close as possible to the departure point with passengers on board, prior to the final anti-icing operation, to reduce the time between de- icing/anti-icing and take-off.

6) Anti-icing fluids should be applied so that they can completely cover the surfaces and form a uniform layer.

Note: You will know that enough anti-icing fluid has been applied when you can visually confirm that the fluid is just beginning to run off the leading and trailing edges of the surface.

7) Arrange for areas visible from the cockpit to be de-iced first, so that during the pre-take-off inspection the crew can be confident that other areas of the aircraft are clear, as areas that de-ice first will usually freeze first.

8) Check that the engines are free to move by turning them manually. If friction is detected, blow hot air through the engine core until free movement is achieved. DO NOT ATTEMPT TO START THE ENGINE - THIS COULD CAUSE CATASTROPHIC DAMAGE.

The areas where de-icing and anti-icing must be carried out on aircraft are listed in Annex II to the MOA.

Pre-flight inspection.

The pre-flight inspection must be carried out after de-icing on the ground as close to the departure time as possible. The aircraft must be thoroughly checked for ice or snow residue, paying particular attention to the following areas:

- Leading edges, trailing edges and surfaces of the wings.
- Stabilisers
- Control surfaces
- Spoilers and air brakes
- Windows
- Landing gear and doors
- Brakes
- Air intakes and drains
- Engines, checking that they rotate freely, and APU
- Pitots, antennas and static devices.
- Fuel tank ventilation
- Pressurisation control valves
- Cooling air inlet and outlet to air conditioning packs.

G. COMMUNICATIONS WITH GROUND PERSONNEL PERFORMING THE TREATMENT.

i. Before handling.

The crew must confirm with the personnel who will perform the de-icing/anti-icing the types of fluid used to achieve the expected holdover times and their application in all areas indicated in Section 7 of each aircraft's AFM (refer to Annex II to the MOA).

ii. After treatment.

Once the treatment is complete, the crew must receive confirmation from the personnel who carried it out that it has been completed and that the aircraft is free of contamination.

iii. Process completed notice.

Once the process is complete, the crew will be notified by ground personnel of the withdrawal of the personnel who carried it out and of the equipment used.

H. TECHNICAL LOG.

The pilot in command must confirm that each time de-icing has been carried out, the de-icing/anti-icing form has been completed and that there is an appropriate and signed entry in the technical log, and that, in particular, the start time, type of fluid and concentration used for the anti-icing operation have been indicated. If there is a subsequent delay in departure, or a deterioration in weather conditions, you should use this information together with that in the tables above to make a realistic assessment of whether the entire process needs to be repeated.

The de-icing/anti-icing service provider must ensure that information on the type of fluid and concentration of the mixture used, as well as the start time of the operation, is not provided to the crew until it has been verified by suitably qualified personnel that the operation has been carried out properly by means of a post-application inspection.

It is not permitted to apply a second coat of anti-icing fluid over the previous application when the protection time is running out. It is always mandatory to carry out a complete de-icing operation before applying anti-icing protection in the case of a two-step operation, or to repeat the entire de-icing-anti-icing process in the case of a single-step operation.

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A) HOLDOVER TABLES

Transport Canada Holdover Time Guidelines **Winter 2026-2027**

TABLE 2: HOLDOVER TIMES FOR SAE TYPE I FLUID ON CRITICAL AIRCRAFT SURFACES COMPOSED PREDOMINANTLY OF ALUMINUM[1,2]

Outside Air Temperature[3,4]	Freezing Fog, Freezing Mist[5], or Ice Crystals[6]	Snow mixed with Freezing Fog[7]	Very Light Snow, Snow Grains or Snow Pellets[7,8]	Light Snow, Snow Grains or Snow Pellets[7,8]	Moderate Snow, Snow Grains or Snow Pellets[7,8]	Freezing Drizzle[9]	Light Freezing Rain	Moderate Snow mixed with Rain[10,11]	Rain on Cold-Soaked Wing[11]	Other[12]
-3°C and above (27°F and above)	0:11 - 0:17	0:06 - 0:11	0:18 - 0:22	0:11 - 0:18	0:06 - 0:11	0:09 - 0:13	0:04 - 0:06	0:02 - 0:02	0:02 - 0:05	
below -3 to -6°C (below 27 to 21°F)	0:08 - 0:13	0:05 - 0:08	0:14 - 0:17	0:08 - 0:14	0:05 - 0:08	0:05 - 0:09	0:04 - 0:06	CAUTION: No holdover time guidelines exist		
below -6 to -10°C (below 21 to 14°F)	0:06 - 0:10	0:04 - 0:06	0:11 - 0:13	0:06 - 0:11	0:04 - 0:06	0:04 - 0:07	0:02 - 0:05			
below -10°C (below 14°F)	0:05 - 0:09	0:02 - 0:04	0:07 - 0:08	0:04 - 0:07	0:02 - 0:04					

NOTES

1 To use the holdover times in this table, ensure that the fluid and dilution being used is listed in the Type I Fluids Tested for Anti-Icing Performance and Aerodynamic Acceptance table (Table 58). Any restrictions on the use of the fluid have to be identified and applied.
2 These holdover times apply to aircraft with critical surfaces constructed predominantly or entirely of aluminum materials that have demonstrated satisfactory use of these holdover times. Takeoff after the longest applicable holdover time has been exceeded is not permitted for Type I fluids.
3 Type I fluid / water mixture must be selected so that the freezing point of the mixture is at least 10°C (18°F) below outside air temperature.
4 Ensure that the lowest operational use temperature (LOUT) is respected.
5 Freezing mist is best confirmed by observation. It is never reported by METAR; however, it can occur when mist is present at 0°C (32°F) and below.
6 Use freezing fog holdover times in conditions of ice crystals mixed with freezing fog or freezing mist.
7 To determine snowfall intensity, the Snowfall Intensities as a Function of Prevailing Visibility table (Table 57) is required. No holdover times exist if the reported visibility correlates to a "heavy" precipitation intensity.
8 Use snow holdover times in conditions of very light, light, or moderate snow mixed with ice crystals.
9 Includes light, moderate and heavy freezing drizzle. Use light freezing rain holdover times if positive identification of freezing drizzle is not possible.
10 These holdover times apply to conditions of "moderate" precipitation intensity. In cases of very light or light snow mixed with light rain or drizzle, use light freezing rain holdover times. The Snowfall Intensities as a Function of Prevailing Visibility table (Table 57) is required to confirm the precipitation intensity. No holdover times exist if the reported visibility correlates to a "heavy" precipitation intensity.
11 No holdover time guidelines exist for this condition for 0°C (32°F) and below.
12 Heavy snow, ice pellets, moderate and heavy freezing rain, small hail and hail.

CAUTIONS

- The cautions that apply to the holdover times in the table above can be found on page 11.

Transport Canada Holdover Time Guidelines **Winter 2026-2027**

TABLE 4: GENERIC HOLDOVER TIMES FOR SAE TYPE II FLUIDS[1]

Outside Air Temperature[2]	Fluid Concentration Fluid/Water By % Volume	Freezing Fog, Freezing Mist[3], or Ice Crystals[4]	Snow mixed with Freezing Fog[5]	Snow, Snow Grains or Snow Pellets[5,6]	Freezing Drizzle[7]	Light Freezing Rain	Moderate Snow mixed with Rain[8,9]	Rain on Cold-Soaked Wing[9]	Other[10]
-3°C and above (27°F and above)	100/0	0:55 - 1:50	0:20 - 0:40	0:30 - 0:55	0:35 - 1:05	0:25 - 0:35	0:05 - 0:05	0:07 - 0:45	
	75/25	0:40 - 1:10	0:15 - 0:25	0:15 - 0:30	0:25 - 0:40	0:15 - 0:25	0:03 - 0:03	0:04 - 0:25	
	50/50	0:15 - 0:30	0:05 - 0:10	0:07 - 0:15	0:09 - 0:15	0:06 - 0:09	CAUTION: No holdover time guidelines exist		
below -3 to -8°C (below 27 to 18°F)	100/0	0:30 - 0:45	0:15 - 0:30	0:20 - 0:40	0:20 - 0:45	0:15 - 0:20			
	75/25	0:25 - 0:55	0:09 - 0:15	0:10 - 0:25	0:15 - 0:30	0:09 - 0:20			
below -8 to -14°C (below 18 to 7°F)	100/0	0:30 - 0:45	0:10 - 0:25	0:15 - 0:30	0:20 - 0:45[11]	0:15 - 0:20[11]			
	75/25	0:25 - 0:55	0:07 - 0:15	0:09 - 0:20	0:15 - 0:30[11]	0:09 - 0:20[11]			
below -14 to -18°C (below 7 to 0°F)	100/0	0:15 - 0:20	0:01 - 0:05	0:02 - 0:07					
below -18 to -25°C (below 0 to -13°F)	100/0	0:15 - 0:20	0:00 - 0:02	0:01 - 0:03					
below -25°C (below -13°F)	100/0	0:15 - 0:20	0:00 - 0:00	0:00 - 0:01					

NOTES

1 To use the holdover times in this table, ensure that the fluid and dilution being used is listed in the Type II Fluids Tested for Anti-Icing Performance and Aerodynamic Acceptance table (Table 59). Any restrictions on the use of the fluid have to be identified and applied.
2 Ensure that the lowest operational use temperature (LOUT) is respected. Consider use of Type I fluid when Type II fluid cannot be used.
3 Freezing mist is best confirmed by observation. It is never reported by METAR; however, it can occur when mist is present at 0°C (32°F) and below.
4 Use freezing fog holdover times in conditions of ice crystals mixed with freezing fog or freezing mist.
5 To determine snowfall intensity, the Snowfall Intensities as a Function of Prevailing Visibility table (Table 57) is required. No holdover times exist if the reported visibility correlates to a "heavy" precipitation intensity.
6 Use snow holdover times in conditions of very light, light, or moderate snow mixed with ice crystals.
7 Includes light, moderate and heavy freezing drizzle. Use light freezing rain holdover times if positive identification of freezing drizzle is not possible.
8 These holdover times apply to conditions of "moderate" precipitation intensity. In cases of very light or light snow mixed with light rain or drizzle, use light freezing rain holdover times. The Snowfall Intensities as a Function of Prevailing Visibility table (Table 57) is required to confirm the precipitation intensity. No holdover times exist if the reported visibility correlates to a "heavy" precipitation intensity.
9 No holdover time guidelines exist for this condition for 0°C (32°F) and below.
10 Heavy snow, ice pellets, moderate and heavy freezing rain, small hail and hail.
11 No holdover time guidelines exist for this condition below -10°C (14°F).

CAUTIONS

- The cautions that apply to the holdover times in the table above can be found on page 14.

TABLE 18: TYPE III HOLDOVER TIMES FOR ALLCLEAR AEROCLEAR MAX APPLIED UNHEATED – MIDDLE SPEED RAMP TEST[1,2]

Outside Air Temperature[3]	Fluid Concentration Fluid/Water By % Volume	Freezing Fog, Freezing Mist[4], or Ice Crystals[5]	Snow mixed with Freezing Fog[6]	Very Light Snow, Snow Grains or Snow Pellets[6,7]	Light Snow, Snow Grains or Snow Pellets[6,7]	Moderate Snow, Snow Grains or Snow Pellets[6,7]	Freezing Drizzle[8]	Light Freezing Rain	Moderate Snow mixed with Rain[9,10]	Rain on Cold-Soaked Wing[10]	Other[11]
-3°C and above (27°F and above)	100/0	0:45 - 1:55	0:11 - 0:25	1:10 - 1:30	0:35 - 1:10	0:15 - 0:35	0:25 - 0:50	0:14 - 0:25	0:04 - 0:04	0:05 - 0:40	
	75/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	50/50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CAUTION: No holdover time guidelines exist		
below -3 to -10°C (below 27 to 14°F)	100/0	0:50 - 1:40	0:11 - 0:25	1:10 - 1:30	0:35 - 1:10	0:15 - 0:35	0:25 - 0:45	0:15 - 0:25			
	75/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
below -10 to -20.5°C (below 14 to -5°F)	100/0	0:40 - 1:45	0:11 - 0:25	1:10 - 1:30	0:35 - 1:10	0:15 - 0:35					

NOTES

1 Consult the aircraft manufacturer's documentation to determine application of low, middle, or high speed ramp test values. If uncertain, apply low speed test values.
2 Fluid must be applied unheated to use these holdover times. No holdover times exist for this fluid applied heated.
3 Ensure that the lowest operational use temperature (LOUT) is respected. Consider use of Type I fluid when Type III fluid cannot be used.
4 Freezing mist is best confirmed by observation. It is never reported by METAR; however, it can occur when mist is present at 0°C (32°F) and below.
5 Use freezing fog holdover times in conditions of ice crystals mixed with freezing fog or freezing mist.
6 To determine snowfall intensity, the Snowfall Intensities as a Function of Prevailing Visibility table (Table 57) is required. No holdover times exist if the reported visibility correlates to a "heavy" precipitation intensity.
7 Use snow holdover times in conditions of very light, light, or moderate snow mixed with ice crystals.
8 Includes light, moderate and heavy freezing drizzle. Use light freezing rain holdover times if positive identification of freezing drizzle is not possible.
9 These holdover times apply to conditions of "moderate" precipitation intensity. In cases of very light or light snow mixed with light rain or drizzle, use light freezing rain holdover times. The Snowfall Intensities as a Function of Prevailing Visibility table (Table 57) is required to confirm the precipitation intensity. No holdover times exist if the reported visibility correlates to a "heavy" precipitation intensity.
10 No holdover time guidelines exist for this condition for 0°C (32°F) and below.
11 Heavy snow, ice pellets, moderate and heavy freezing rain, small hail and hail.

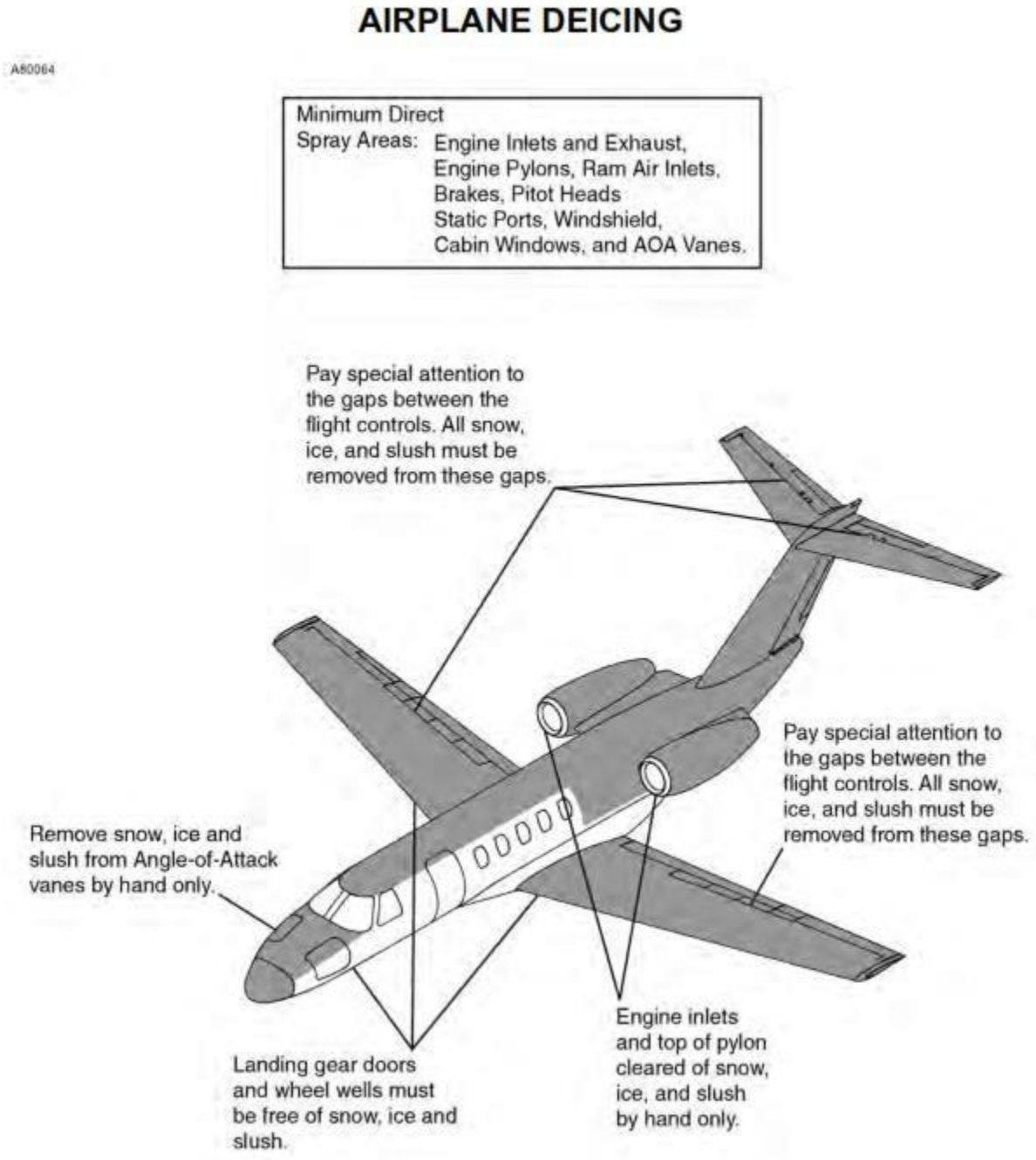
CAUTIONS

- The cautions that apply to the holdover times in the table above can be found on page 28.

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B) DEFROST/ANTIFREEZE ZONES

CESSNA 525 C



AIRPLANE ANTI-ICING

A80065

Minimum Direct Spray Areas: Engine Inlets and Exhaust, Engine Pylons, Ram Air Inlets, Brakes, Pitot Heads Static Ports, Windshield, Cabin Windows, and AOA Vanes.

