Ground Deicing

2016 -2017 Winter Season

Ground Deicing - Hawaii

Hawaii

No person may take off an aircraft at any Hawaiian location when frost, ice, or snow is adhering, or may reasonably be expected to adhere to the wings, control surfaces, propellers, engine inlets, or other critical surfaces of the aircraft.

Ground Deicing

Clean Aircraft Concept Determination

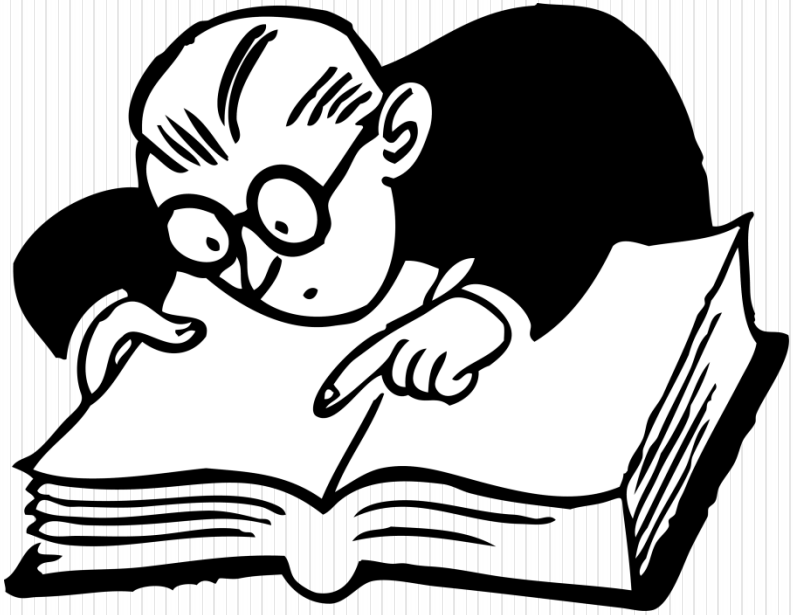
The purpose of a ground deicing program is to identify processes for aircraft with frozen contaminants on it and remove the contaminant.

Ground Deicing

Initial and Recurrent Training

1) The use of holdover times.
2) Aircraft deicing/anti-icing procedures, including inspection and check procedures and responsibilities.
3) Communications procedures.
4) Aircraft surface contamination (i.e., adherence of frost, ice, or snow) and critical (critical surfaces) area identification, and how contamination adversely affects aircraft performance and flight characteristics.
5) Types and characteristics of deicing/anti-icing fluids.
6) Cold weather preflight inspection procedures.
7) Techniques for recognizing contamination on the aircraft.
8) Duties, responsibilities, and functions for each person (job function) involved in the program (contained in Ground De-Ice / Anti-Ice manual).

Key Pointers to De-Ice / Anti-Ice



This Power Point presentation is a selective presentation of requirements outlined in Corporate Air's Ground De-Ice / Anti-Ice Manual dated October 1st 2016 and applicable the to C208 aircraft.

The intent is to target items for an effective de-ice / anti-ice process.

For detailed information refer to the De-Ice / Anti-Ice Manual.

After the training session a knowledge test is scheduled.

Records of attendance form is located on page 50 of the Manual.

1.0 General Provisions

No aircraft may take off with frost, ice, or snow adhering to the aircraft.

Applicability

There are two options for de-icing / anti-icing.

1) At the following stations, CPR, FAR (GFK), GTF, BZN, SLC and COD the two step de-icing / anti-icing procedure is available and the use of holdover tables. In addition the alternate one step procedure is also an available option.

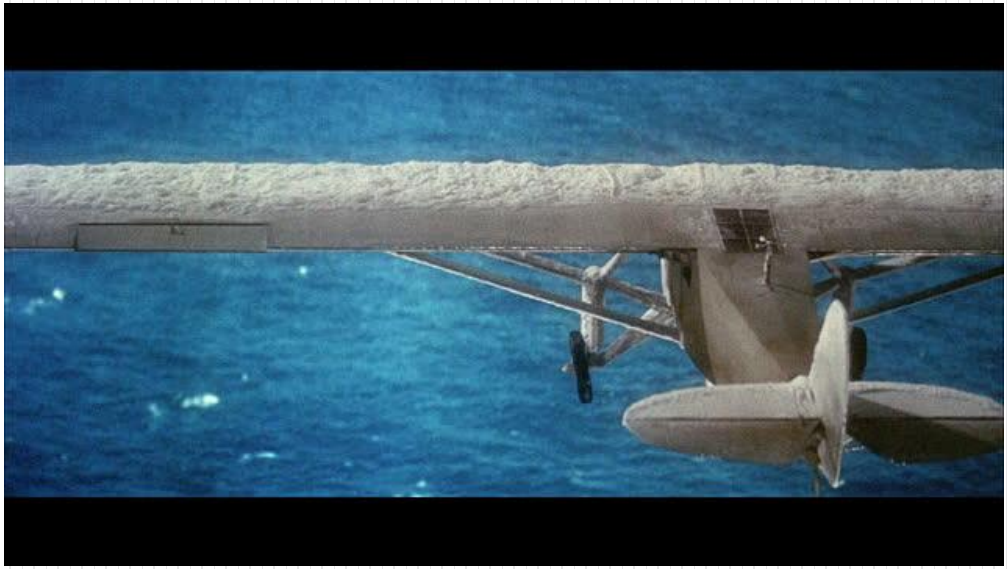
2) At all other stations the one step de-icing procedure is the only available option.

At All Places

When the alternative ground deice procedures is used (one step procedure) a tactile check within 5 minutes prior to takeoff is required under this program.

Can’t Fly With Ice

No person continue to operate an aircraft enroute, or land an aircraft when in the opinion of the pilot in command icing conditions are expected or met that might adversely affect the safety of the flight.



Anti-Icing Is Cold

Anti-Icing

Protection against the formation of frost or ice.

Anti-icing fluids are normally applied unheated on clean aircraft surfaces.

De-Icing is Heated

De-Icing

Remove frost, ice, slush, or snow from the aircraft by applying de-icing fluids or in heated hangar.

De-icing fluid is usually applied heated.

Hold Over Time

Holdover Time (HOT)

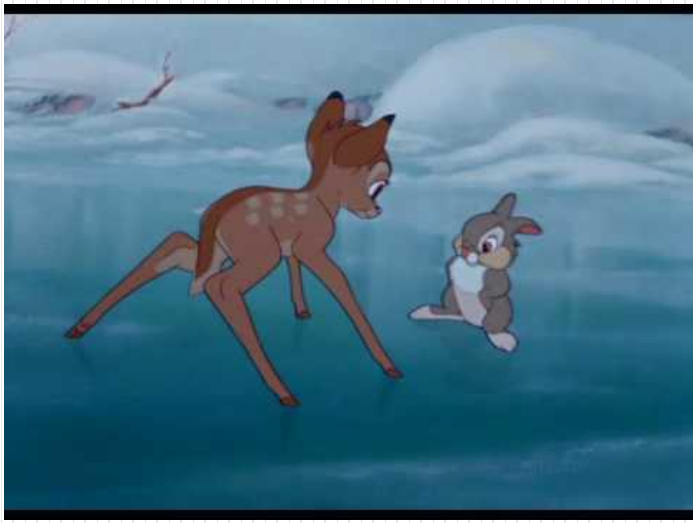
Estimated time the deicing or anti-icing fluid will prevent the formation of frost or snow or ice.

Holdover time begins at the time when step two of the two step anti-icing procedure starts.

Critical Surfaces

Pre-takeoff Contamination Check

A check conducted after the aircraft's HOT is exceeded.



Critical Surfaces on the C208

1) Wing leading edges, upper surfaces and lower surfaces
2) Horizontal and vertical stabilizers
3) All control surfaces and control surface gaps
4) Spoilers
5) Windshield for clear visibility
6) Engine inlets
7) Antennas
8) All pitot and static probes/ports
9) Fuel tank and fuel cap vents
10) Air inlet scoops
11) Landing gear

Definitions

Active Frost – A condition that exists when frost is forming.

Cold Weather Preflight Inspection – Whenever one of the following conditions exists:

a) Ground Deicing Conditions are in effect.

b) A temperature of 5°C or less with a dew point of 3°C or less.

c) When frost is visible on other non-aircraft surfaces in the area.

Critical Aircraft Surfaces – The surfaces of the aircraft the manufacturer has determined that must be free of frozen contamination in order for the aircraft to safely takeoff.

Freezing Fog– Increase with increasing wind speed.

Freezing Precipitation – Snow, sleet, light freezing rain, drizzle, or hail, which could adhere to aircraft surfaces.

Frost – A crystallized deposit, opaque in color, formed from water vapor on surfaces that are at or below 0°C (32°F).

Definitions

Frozen Contaminants – Light freezing rain, freezing rain, freezing drizzle, frost, ice, ice pellets, snow, snow grains, and slush.

Ground Deicing Conditions – A set of predetermined conditions using the variables such as temperature, dew point, visibility and precipitation to determine if conditions exist that most likely will cause ice formation on the aircraft while it is on the ground.

Hoarfrost – Is usually a uniform white deposit of fine crystalline texture.

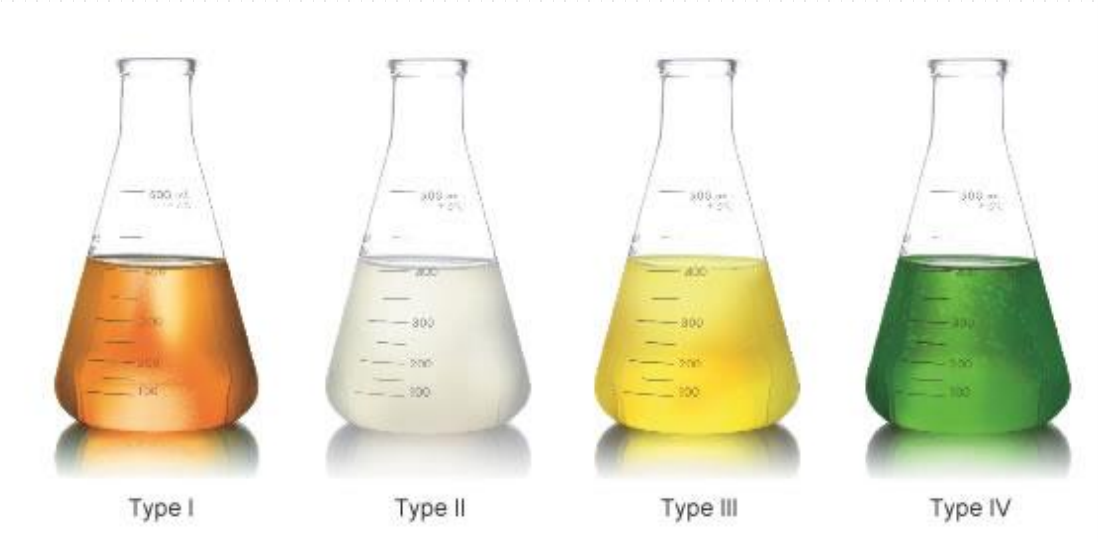
Ice Pellets – Pellets of ice composed of frozen or mostly frozen raindrops or refrozen partially melted snowflakes.

Inflight Ice Accumulation – Three types of ice you may encounter Clear Ice , Rime Ice , or Mixed Ice

Inspection of Critical Aircraft Surfaces – A check of the critical aircraft surfaces is done by ground deicing personnel after the deicing procedure.

Light Freezing Rain – Water condensed from atmospheric vapor falling to earth in supercooled drops.

Definitions



Rain or High Humidity on Cold Soaked Wing – Water forming ice or frost on the wing surface when the temperature of the aircraft wing surface is at or below 0°C (32°F).

Rain or High Humidity on Cold Soaked Fuel Tanks – Water forming ice or frost may form on the wing surface when the temperature of the aircraft wing surface in the vicinity of the wing fuel tanks is at or below 0°C (32°F) due to cold soaked fuel.

Representative Surfaces – Certain aircraft surfaces that the flight crew can readily observe to determine whether or not ice, frost, or snow is accumulating or forming on that surface and, by using it as a representative surface, can make a reasoned judgment whether or not ice, frost, or snow is adhering to other aircraft surfaces.

Sensitive Area – Areas on the aircraft that direct application of deicing/antiicing fluid is prohibited.

Underwing Frost – Takeoff with frost under the wing in the area of the fuel tanks (caused by cold soaked fuel) is prohibited, and under wing frost must be removed from the aircraft to adhere to the clean aircraft concept.

Abbreviations

Abbreviations

- ADF – Aircraft Deicing Fluid
- (C) – Control (Safety Attribute)
- CRE – Chronological Record of Events
- °C – Degrees Celsius
- DO – Director of Flight Operations
- DT – Director of Training
- °F – Degrees Fahrenheit
- FAA – Federal Aviation Administration
- FAR – Federal Aviation Regulation
- FF – Flight Following

Abbreviations

- FO – First Officer
- FOA – Flight Operations Assistant
- FP – Freeze Point
- FPD – Freezing Point Depressant
- HOT – Holdover Time
- OAT – Outside Air Temperature
- PIC – Pilot-in-Command
- POI – Principal Operations Inspector
- RON – Remain Overnight (aircraft or crew)
- SAE – Society of Automotive Engineers

Contract Personnel

Contract Deicing Personnel

Duties and Responsibilities.

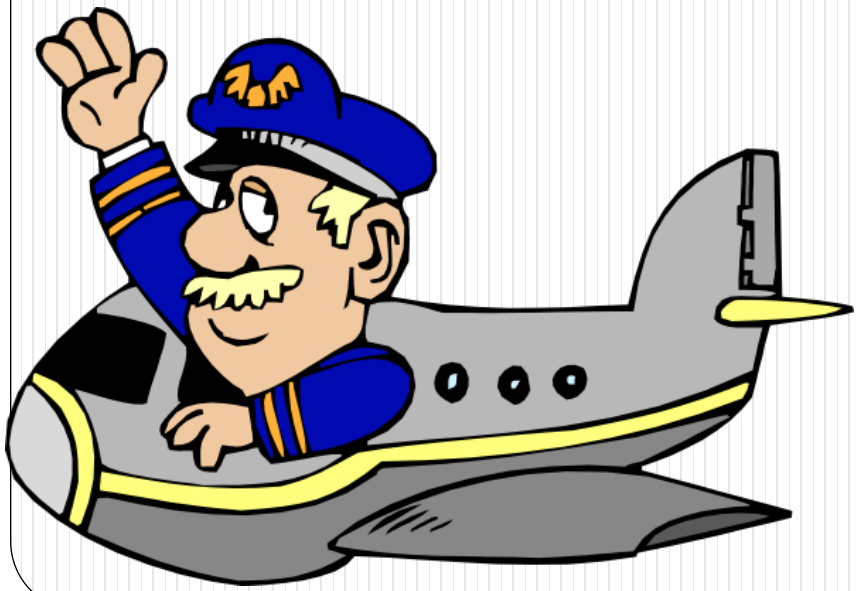
a) De-Ice / Anti-Ice.

b) Communicate to PIC.

c) Inspect critical surfaces

d) Advise the PIC the aircraft is free or not free of frozen contaminants after the completion of the deicing procedure.

PIC



Pilot-in-Command

a) Final authority for deicing.

b) Final authority to determine holdover times.

c) Final authority determining critical surfaces are free of frozen contaminants.

d) Ensure free of contaminants by a pre-takeoff check.

e) Advise Chief Pilot when revisions to this program are necessary.

f) Train contract vendor personnel under the provisions of this program.

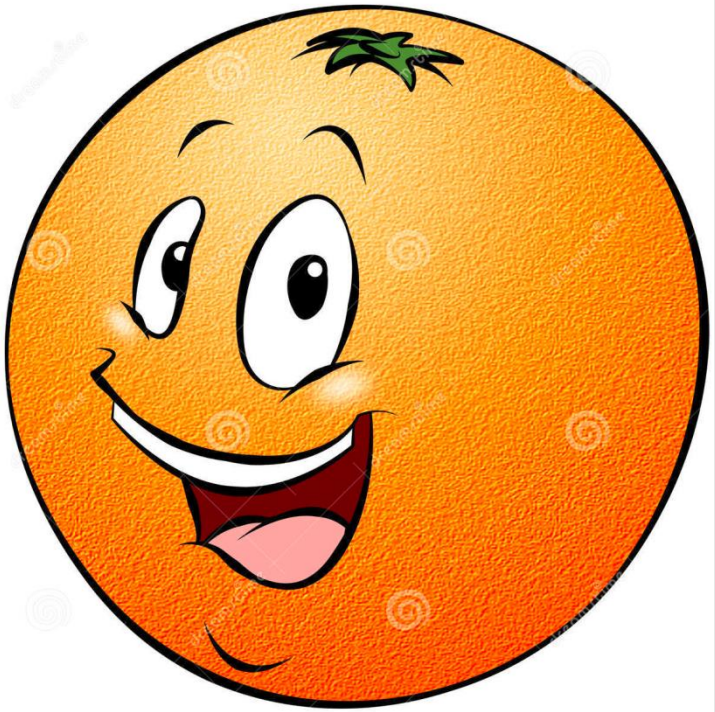
g) Monitor the deicing procedure from the exterior of the aircraft when contract vendor personnel are not trained.

Cold Weather

Cold Weather Pre-Flight Inspection

Final determination whether ground Deicing/Anti-icing is required after a thorough cold weather preflight inspection has been conducted by the PIC.

Type I



Type I Deicing Fluid

Concentrate solution of glycol that is normally mixed with water and heated.

“Unthickened” because of its relatively low viscosity and very little holdover time.

Orange in color.

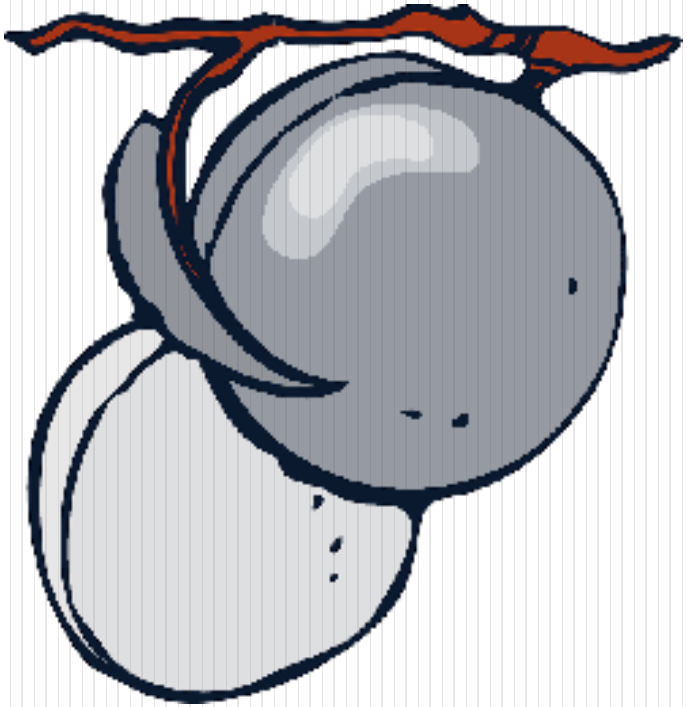
Type II

Type II Deicing Fluid

Longer holdover times than Type I. Can be applied hot as a deicing, or applied cold as an anti-icing. May be applied in a two step procedure with hot fluid for deicing and cold fluid for anti-icing.

Applied to aircraft with rotation speeds above 85KIAS.

Clear in color.



Type III

Type III Deicing Fluid

Diluted thickened fluids that provide longer holdover times than Type I fluids.

Used as anti-icing fluid on aircraft with low rotation speeds.

Undiluted provides the longest HOT. Must be undiluted at temperatures below -10C (14F)

Yellow in color.

Type IV

Type IV Deicing Fluid

A water and glycol mixture that includes a polymer as a thickening agent.

Longer HOT than Type I.

Applied cold on clean aircraft surfaces for anti-icing protection.

May be applied heated for deicing.

It adheres to the airfoil, but during takeoff roll the fluid blows off the aircraft to leave a clean surface.

Not be used on airplanes with a rotation speed of less than 85 knots.

Green in color.

HOT Table Type I

TABLE 1. FAA GUIDELINES FOR HOLDOVER TIMES SAE TYPE I FLUID MIXTURES ON CRITICAL AIRCRAFT SURFACES COMPOSED PREDOMINANTLY OF ALUMINUM AS A FUNCTION OF WEATHER CONDITIONS AND OUTSIDE AIR TEMPERATURE

CAUTION: THIS TABLE IS FOR DEPARTURE PLANNING ONLY AND SHOULD BE USED IN CONJUNCTION WITH PRETAKEOFF CHECK PROCEDURES.

Outside Air Temperature		Wing Surface	Approximate Holdover Times Under Various Weather Conditions (hours: minutes)						
Degrees Celsius	Degrees Fahrenheit		Freezing Fog	Snow, Snow Grains or Snow Pellets			Freezing Drizzle*	Light Freezing Rain	Rain on Cold Soaked Wing**	Other‡
				Very Light†	Light†	Moderate				
-3 and above	27 and above	Aluminum	0:11-0:17	0:16-0:22	0:11-0:16	0:06-0:11	0:09-0:13	0:02-0:05	0:02-0:05	
below -3 to -6	below 27 to 21	Aluminum	0:08-0:13	0:14-0:17	0:08-0:14	0:05-0:08	0:05-0:09	0:02-0:05	CAUTION: No holdover time guidelines exist	
below -6 to -10	below 21 to 14	Aluminum	0:08-0:10	0:11-0:13	0:06-0:11	0:04-0:06	0:04-0:07	0:02-0:05		
Below -10	below 14	Aluminum	0:05-0:09	0:07-0:09	0:04-0:07	0:02-0:04				

THE RESPONSIBILITY FOR THE APPLICATION OF THESE DATA REMAINS WITH THE USER.

* Use light freezing rain holdover times if positive identification of freezing drizzle is not possible
** This column is for use at temperatures above 0 degrees Celsius (32 degrees Fahrenheit) only
‡ Heavy snow, ice pellets, moderate and heavy freezing rain, hail
† Use light freezing rain holdover times in conditions of very light or light snow mixed with light rain.

SAE Type I fluid/water mixture is selected so that the freezing point of the mixture is at least 10 °C (18 °F) below OAT.

CAUTIONS:

- THE TIME OF PROTECTION WILL BE SHORTENED IN HEAVY WEATHER CONDITIONS, HEAVY PRECIPITATION RATES OR HIGH MOISTURE CONTENT, HIGH WIND VELOCITY, OR JET BLAST MAY REDUCE HOLDOVER TIME BELOW THE LOWEST TIME STATED IN THE RANGE. HOLDOVER TIME MAY BE REDUCED WHEN AIRCRAFT SKIN TEMPERATURE IS LOWER THAN OAT.
- **SAE TYPE I** FLUID USED DURING GROUND DEICING/ANTI-ICING IS NOT INTENDED FOR AND DOES NOT PROVIDE PROTECTION DURING FLIGHT.

HOT Table Type IV

TABLE 4-GENERIC. TYPE IV HOLDOVER TIME GUIDELINES FOR SAE TYPE IV FLUIDS

Outside Air Temperature[1]		Type IV Fluid Concentration Neat-Fluid/Water (Volume %/Volume %)	Approximate Holdover Times Under Various Weather Conditions (hours:minutes)							
Degrees Celsius	Degrees Fahrenheit		Freezing Fog or Ice Crystals	Snow, Snow Grains or Snow Pellets[2]			Freezing Drizzle[4]	Light Freezing Rain	Rain on Cold Soaked Wing[5]	Other[6]
				Very Light[3]	Light[3]	Moderate				
-3 and above	27 and above	100/0	1:15-2:40	2:20-2:45	1:10-2:20	0:35-1:10	0:40-1:30	0:35-0:40	0:08-1:25	
		75/25	1:25-2:40	2:05-2:15	1:15-2:05	0:45-1:15	0:50-1:20	0:30-0:45	0:09-1:15	
		50/50	0:25-0:50	0:40-0:45	0:25-0:40	0:15-0:25	0:15-0:30	0:09-0:15	CAUTION: No holdover time guidelines exist	
below -3 to -14	below 27 to 7	100/0	0:20-1:35	1:20-1:40	0:45-1:20	0:25-0:45	0:25-1:20[7]	0:20-0:25[7]		
		75/25	0:30-1:10	1:40-2:00	0:45-1:40	0:20-0:45	0:15-1:05[7]	0:15-0:25[7]		
below-14 to LOUT	Below 7 to LOUT	100/0	0:20-0:40[8]	0:20-0:25[8]	0:10-0:20[8]	0:08-0:10[8]				

THE RESPONSIBILITY FOR THE APPLICATION OF THESE DATA REMAINS WITH THE USER.

Snowfall Intensity Table

TABLE 1C – SNOWFALL INTENSITIES AS A FUNCTION OF PREVAILING VISIBILITY

Time of Day	Temp.		Visibility Statute Miles (Meters)									Snowfall Intensity
	Degrees Celsius	Degrees Fahrenheit	≥ 2 ½ (≥4000')	2 (3200')	1 3/4 (2800')	1 1/2 (2400')	1 1/4 (2000')	1 (1600')	3/4 (1200')	1/2 (800')	≤ 1/4 (≤ 400')	
Day	colder/equal -1	colder/equal 30	Very Light	Very Light	Very Light	Light	Light	Light	Moderate	Moderate	Heavy	
	warmer/than -1	warmer/than 30	Very Light	Light	Light	Light	Light	Moderate	Moderate	Heavy	Heavy	
Night	colder/equal -1	colder/than 30	Very Light	Light	Light	Moderate	Moderate	Moderate	Moderate	Heavy	Heavy	
	warmer/than -1	warmer/than 30	Very Light	Light	Moderate	Moderate	Moderate	Moderate	Heavy	Heavy	Heavy	

Note 1: This table is for estimating snowfall intensity. It is based upon the technical report, "The Estimation of Snowfall Rate Using Visibility," Rasmussen, et al., Journal of Applied Meteorology, October 1999 and additional in situ data.
Note 2: This table is to be used with Type I, II, III, and IV fluid guidelines.
Note 3: If visibility from a source other than the METAR is used, round to the nearest visibility in the table, rounding down if it is right in between two values. For example, .6 and .625 (5/8) would both be rounded to .5 (1/2).

HEAVY – Caution – No Holdover Time Guidelines Exist

Radio Procedure - One Step

Radio Communications: One Step Deicing Procedure

Ground deicing technician will make radio contact with the captain.

For a one-step, Type I deicing procedure, the ground technician will confirm with the flightcrew the aircraft is properly configured for deicing by asking the Captain, “Is your aircraft ready for deicing?” The PIC will respond appropriately.

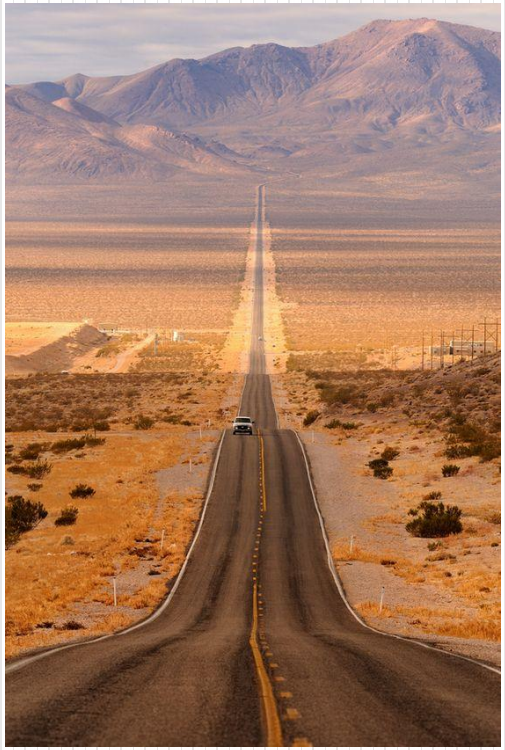
Ground technician will specify Type I fluid is being used.

Ground technician will advise the beginning of the deice procedure.

Verify clean aircraft concept.

Equipment is moved away.

Radio Procedure - Two Step



Radio Communication: Two-step deice/anti-ice

Ground technician checks with the flightcrew if the aircraft is configured for fluid application.

Ground crew advise flight crew when process is a two-step procedure beginning with the application of Type I fluid.

Ground technician will advise the fluid/water mix ratio by volume of Type IV fluid.

Ground technician will advise the beginning of the anti-icing fluid application.

After the completion of anti-icing and post-anti-icing inspection ground will advise flightcrew.

Verify clean aircraft concept.

Equipment is moved away from the aircraft.

1.0 General Provisions

Clean Aircraft Concept

After the fluid has been applied, a smooth glossy-like sheen will be noticed with no irregularities under the coat of fluid.

If any doubts regarding frozen contaminant on a critical area after the application of the fluid, take a closer look. If not sure reapply to that area.

Brakes Are Stuck

Passengers told to get out and PUSH their plane after its brakes froze in minus 52C temperatures in Russia

Wheel Brake Deice Procedure

1) Use a ground heater.

2) Spray or pour isopropyl alcohol on the brakes.

3) Cycle the brakes asymmetrically while engine power is applied.

Sensitive Areas

Sensitive Area

Areas on the aircraft that direct application of deicing / antiicing fluid is prohibited.

Sensitive Areas

Sensitive Areas C208 Caravan

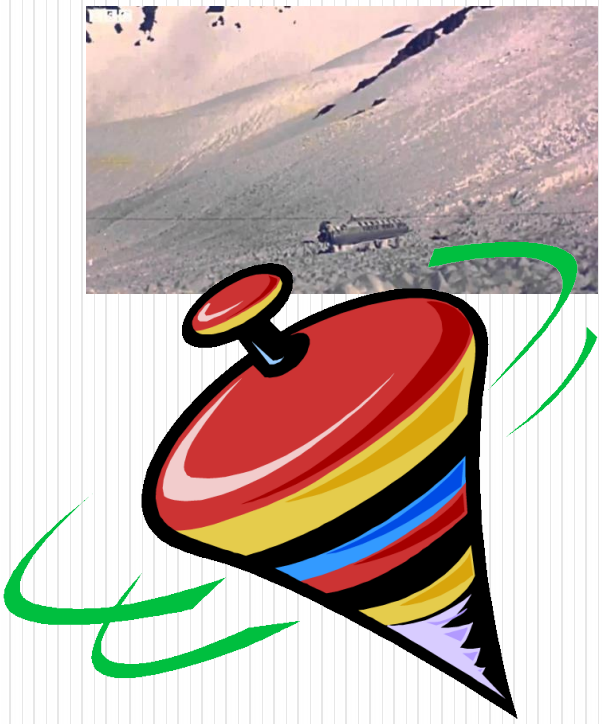
1) Engine inlets and exhaust
2) Windshields and windows
3) Brakes
4) Pitot-static tubes
5) Stall warning vane

Start At The Spinner

Spray Pattern

The engine must be shutdown during deicing/anti-icing.

1) Begin on the left side fuselage from the spinner to the wing strut area.
2) Apply fluid on the upper fuselage above the cockpit.
3) Deice left wing.
4) Deice left fuselage from wing strut area to the tail.
5) Tail section, left and right side.
6) Right side fuselage from the tail to the wing strut area.
7) Right wing.
8) Right side fuselage above the cockpit.
9) Right side fuselage from the wing strut area to the spinner.



Reasoning for Left Nose

By starting the deice application at left nose, the pilot can get a conservative estimate of ice reformation from inside the cockpit since this was the first area deiced, it will be the first area to experience new ice reformation.

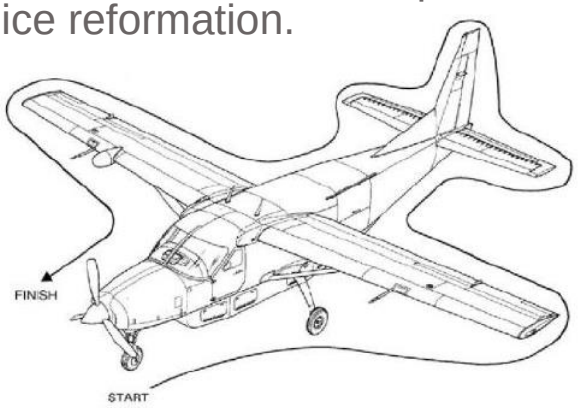
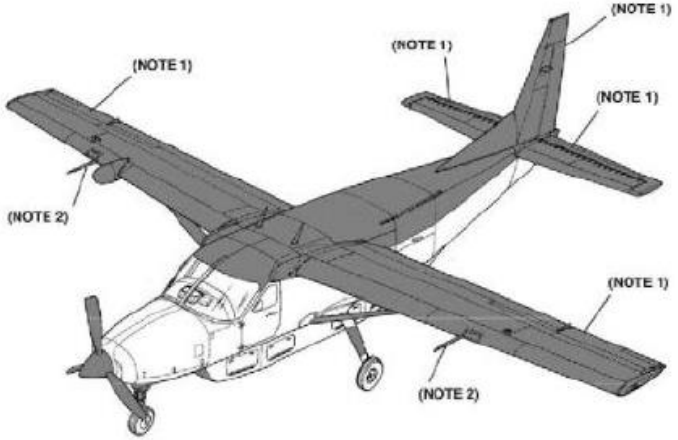


Figure 2 – Fluid Application Sequence



NOTE 1: PAY SPECIAL ATTENTION TO THE GAPS BETWEEN THE FLIGHT CONTROLS. ALL SNOW, ICE AND SLUSH MUST BE REMOVED FROM THESE GAPS.

NOTE 2: REMOVE SNOW, ICE AND SLUSH FROM PITOT TUBES BY HAND ONLY.

NOTE: SHADED AREAS INDICATE ESSENTIAL AREAS TO BE DEICED.

Figure 3 – Essential Areas for Deice Fluid Application

Post De-Ice Checks

Post De-Icing Inspection

Immediately after the completion of the deicing procedure, the deicing technician will closely inspect the aircraft to ensure all critical areas are free of frozen contaminants.

Follow the same sequencing as the deicing procedure.

PIC Supervise if Deicing Personnel Not Trained

If the ground deicing personnel have not been trained for post deicing inspection the PIC will supervise the ground deicing/anti-icing procedure from the outside of the aircraft, and conduct the post-deicing procedure.

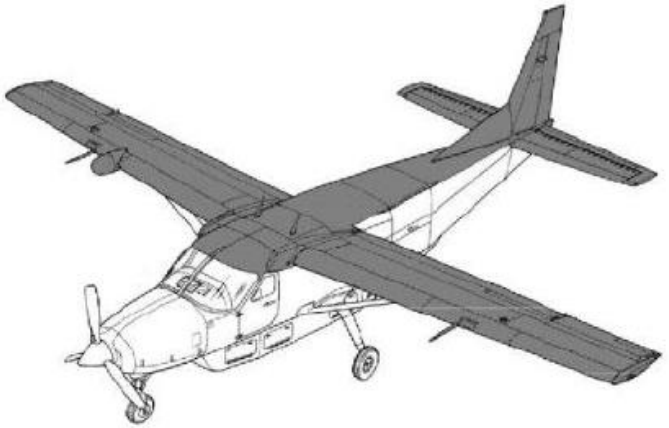
Left Wing, Right Wing

Application of Anti-icing Fluids

Apply anti-ice fluid to the left wing.

Left and right tail sections and empennage.

Right wing.



NOTE 1: ANTI-ICE FLUID SHOULD BE APPLIED AT LOW PRESSURE TO FORM A THIN FILM ON SURFACE. FLUID SHOULD JUST COVER AIRPLANES WITHOUT RUNOFF.

NOTE 2: SHADED AREAS INDICATE AREAS WHERE ANTI-ICE FLUID IS APPLIED.

NOTE 3: AVOID DIRECT SPRAY ON PITOT STATIC TUBES, WINDSHIELDS, CABIN WINDOWS, AND STALL WARNING VANE.

Figure 4 – Essential Areas for Anti-Ice Fluid Application

Checklist

Post Anti-Icing Inspection

Follow the same sequencing as the anti-icing procedure.

A non-contaminated surface is a surface to which no frozen contaminants are adhering.

In the event of freezing drizzle, light freezing rain, or rain on a cold-soaked wing the PIC will conduct the post anti-icing inspections, as well as physically checking the nose, fuselage and wings for possible ice contaminants.

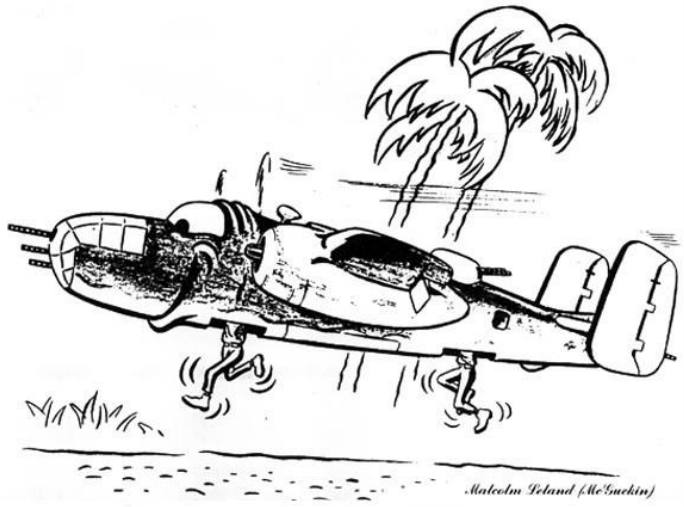
Takeoff Contaminants

Pre-takeoff Contamination Check

If the HOT is exceeded, the aircraft must be inspected for possible frozen contaminants. This must be done from the exterior of the aircraft.

Pre-takeoff contamination inspection must be done within five minutes of departure.

Critical Areas



Landing gear check after deicing

Following critical areas are free of ice, snow, or slush.

1) Wing leading edges, upper surfaces and lower surfaces
2) Horizontal and vertical stabilizers
3) All control surfaces and control surface gaps
4) Spoilers
5) Windshield for clear visibility
6) Engine inlets
7) Antennas
8) All pitot and static probes/ports
9) Fuel tank and fuel cap vents
10) Air inlet scoops
11) Landing gear

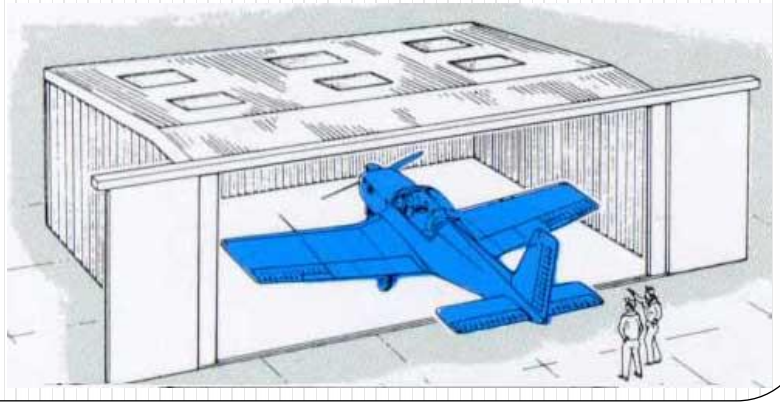
Parked Inside

Hangaring Aircraft

Aircraft that is kept in a hangar during periods of time that ground icing conditions exists, may not need deicing even though ground deicing conditions are declared in effect.

The PIC will conduct a cold weather preflight inspection to determine if any contaminants are adhering to the aircraft.

If no contaminants are present, the flight may continue without further deicing action.



Need To Find A Hangar

Base:	Cities Where Hangaring is Available:
CPR	BFF, COD, CPR, HDN, RKS
GFK	BIS, BJI, DIK, GFK, ISN, MOT
GTF	BZN, GTF, OLF*
SLC	PIH, SLC, SUN, TWF

* Open Hangar – not suitable for warming an aircraft to remove frozen contamination

Under or Outside

Under this program

When the C208 is deiced or anti-iced under this program — after deicing, but before the expiration of the HOT—the PIC will do a tactile inspection of a portion of the upper wing.

Outside this program

If the aircraft is deiced or anti-iced outside the parameters of this program, the PIC will conduct a tactile check of the leading edge and upper surface of the wing. During ground icing conditions, takeoff must be accomplished within 5 minutes of completing the tactile inspection.

Snowfall

TABLE 7. SNOWFALL INTENSITIES AS A FUNCTION OF PREVAILING VISIBILITY

Time of Day	Temp.		Visibility in Statute Miles (Meters)									
	Degrees Celsius	Degrees Fahrenheit	≥ 2 1/2 (≥ 4000)	2 (3200)	1 3/4 (2800)	1 1/2 (2400)	1 1/4 (2000)	1 (1600)	3/4 (1200)	1/2 (800)	≤ 1/4 (≤ 400)	Snowfall Intensity
Day	colder/equal -1	colder/equal 30	Very Light	Very Light	Very Light	Light	Light	Light	Moderate	Moderate	**Heavy**	
	warmer than -1	warmer than 30	Very Light	Light	Light	Light	Light	Moderate	Moderate	**Heavy**	**Heavy**	
Night	colder/equal -1	colder/equal 30	Very Light	Light	Light	Moderate	Moderate	Moderate	Moderate	**Heavy**	**Heavy**	
	warmer than -1	warmer than 30	Very Light	Light	Moderate	Moderate	Moderate	Moderate	**Heavy**	**Heavy**	**Heavy**	

NOTE 1: This table is for estimating snowfall intensity. It is based upon the technical report, "The Estimation of Snowfall Rate Using Visibility," Rasmussen, et al., Journal of Applied Meteorology, October 1999 and additional in situ data.

NOTE 2: This table is to be used with Type I, II, III, and IV fluid guidelines.

NOTE 3: The use of Runway Visual Range (RVR) is not permitted for determining visibility used with the holdover tables.

NOTE 4: Some METARS contain tower visibility as well as surface visibility. Whenever surface visibility is available from an official sou ce, such as a METAR, in either the main body of the METAR or in the Remarks ("RMK") section, the preferred action is to use the surface visibility value.

NOTE 5: If visibility from a source other than the METAR is used, round to the nearest visibility in the table, rounding down if it is right in between two values. For example, .6 and .625 (5/8) would both be rounded to .5 (1/2).

HEAVY = Caution—No Holdover Time Guidelines Exist

LOUT

Type I fluids may be used down to the Lowest Operational Use

Temperature (LOUT), which may include temperatures colder than

-25°C (-13°F), but still at or

above the LOUT.

On the other hand, Types II, III, and IV fluids are limited to the LOUT or -25°C (-13°F) whichever

is warmer.

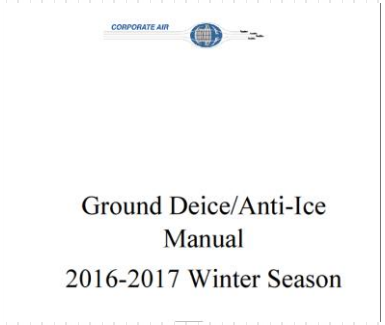
Training

This Training Has Included:

1) The use of holdover times.
2) Aircraft deicing/anti-icing procedures, including inspection and check procedures and responsibilities.
3) Communications procedures.
4) Aircraft surface contamination (i.e., adherence of frost, ice, or snow) and critical (critical surfaces) area identification, and how contamination adversely affects aircraft performance and flight characteristics.
5) Types and characteristics of deicing/anti-icing fluids.
6) Cold weather preflight inspection procedures.
7) Techniques for recognizing contamination on the aircraft.
8) Duties, responsibilities, and functions for each person (job function) involved in the program (contained in Ground De-Ice / Anti-Ice manual).

Test

Click on the Ground De-ice / Anti-Ice Manual for detailed information.



Click on the Knowledge Base for test review.

Click on the TEST to take the test.

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