

DCA23FA149

OPERATIONAL FACTORS

Attachment 8

SWA Aircraft Deicing Procedures, [Excerpts]

July 31, 2023

15.1 Cold Weather Operations

Revised: 04/11/2022

This section contains the procedures and supporting information required to operate in cold weather and icing conditions. Ground deicing/anti-icing requires careful coordination and precise communication between the Flight Deck Crew and Ground Deicing Personnel.

The information is organized in five areas: general concepts, definitions, procedures by phase-of-flight format, charts, and glossary.

15.1.1 Concepts and Definitions

Revised: 04/11/2022

FO Bulletin 23-13

The Clean Aircraft Concept

The Clean Aircraft Concept is essential for safe flight operations. It is required by 14 CFR Part 121.629. No person may take off an aircraft when frost, ice, or snow is adhering to the wings (to include winglets), control surfaces, engine inlets, or other critical surfaces of the aircraft.

There are three exceptions to the Clean Aircraft Concept:

- Thin hoarfrost on the upper surface of the fuselage provided all vents and ports are clear.
- Cold-soaked fuel frost (CSFF) up to 1/8 inch on lower wing surfaces.
- CSFF on upper wing surfaces, provided that all of the following conditions are met:
 - The CSFF is on or between the black lines defining the allowable CSFF area.
 - Outside air temperature (OAT) is at or above 4°C (39°F).
 - Fuel tank temperature is at or above -16°C (3°F).
 - There is no precipitation or visible moisture (rain, snow, drizzle, or fog with less than 1 mile visibility).

The Captain has the ultimate responsibility to determine if the aircraft is clean and in a condition for safe flight.

15.1.3 Arriving at the Aircraft

Captain Responsibilities

(CA) Accomplish the following:

- Ensure the Preflight Contamination Check is conducted.
- Be the final authority in determining if the aircraft requires deicing.
- Evaluate the need for anti-icing and the holdover or allowance time requirements.
- As soon as the need for deicing has been determined, coordinate the Deicing/Anti-Icing Plan (refer to [15.1.5 Ground Deice/Anti-Ice Procedures: The Decision to Deice/Anti-Ice](#) under the Deicing/Anti-Icing Plan heading).
- Ensure the aircraft is configured for deicing/anti-icing. Refer to the Pre-Deice/Anti-Ice Checklist found in the Deice/Anti-Ice Procedures Card.
- Determine if the aircraft is clean and in condition for safe flight.
- If the APU usage was required for overnight heating, ground personnel clips a copy of the WN-1310 *Overnight Usage Notification* form to the captain's yoke. The Captain should use this form when conducting the fuel audit.

The Captain is responsible for ensuring that the aircraft is properly deiced/anti-iced and that a Clean Aircraft Check is accomplished after deicing/anti-icing. In normal line operations, the Captain

designates the Iceman to perform the Clean Aircraft Check. The check is completed section-by-section throughout the deicing/anti-icing process. The Iceman communicates with the Flight Deck Crew when the check is complete, and all equipment is clear.

Aircraft Deiced/Anti-Iced Prior to Flight Deck Crew Arrival (Procedures)

An overnight aircraft may be deiced/anti-iced prior to Flight Deck Crew arrival. This is a normal Ground Operations procedure. The aircraft may be treated with Type IV fluid to aid in contamination removal and/or deiced to facilitate the departure of an originating flight when freezing precipitation is not anticipated at the time of departure.

The aircraft is deiced with flaps up, and a completed WN-654 *Flight Deck Crew Deice/Anti-Ice Notification* is clipped to the Captain's yoke. If Ground Operations is in the process of deicing the aircraft as the Flight Deck Crew boards the originator, allow the Iceman to complete deicing before starting the APU, and follow the guidance in this section.

The Flight Deck Crew must verify that the aircraft is free of contamination. Consult the Deicing/Anti-Icing Prior to Flight WN-654 to determine the type of fluid applied, and ensure that if Type IV fluid was applied, as removed by deicing with Type I fluid.

15.1.5 Ground Deice/Anti-Ice Procedures: The Decision to Deice/Anti-Ice

The Station Manager (or Deice Coordinator) and the Dispatcher have the joint responsibility for determining when to implement Ground Deicing/Anti-Icing Operations based on weather conditions. If not already implemented, the Captain may also initiate ground deicing/anti-icing operations, if required, to ensure compliance with the Clean Aircraft Concept.

Deice Information Page

Prior to deicing/anti-icing, review (as applicable) the winter operations information found on the station Deice Information Page (DIP). DIPs may be accessed by tapping the snowflake icon in the DEICE information block on the SIP.

DIPs are provided for all locations with deicing equipment. They are the main source of information regarding local deicing/anti-icing procedures at individual stations.

Deicing/Anti-Icing Plan

The plan includes, but is not limited to, the following elements:

- Aircraft nose number verification
- Preflight Contamination Check
- Location where deicing/anti-icing will take place
- Deicing/anti-icing method (i.e., Deicing Only, One-Step, Two-Step)
- Type I fluid freeze point (if required)
- Coordination of time or sequence when deicing/anti-icing will begin
- Aircraft configuration (extend flaps to takeoff setting or remain at flaps 15° for flap area contamination removal)
- Engines (off or running)
- Special requirements

Independent Contractors

At airports where Southwest Airlines and/or trained contractor deicing/anti-icing are not available, the following applies:

- The Captain coordinates with Dispatch to fax/email the WN-1088 *Offline Deice/Anti-Ice Packet* to the station.

The captain reviews the procedure(s) with the contractor and supervises the operation to ensure the aircraft is deiced/anti-iced in accordance with the *SWADAP*.