

# DE-ICING PROCEDURES LSGG/GVA IVAO CH



International Virtual Aviation Organisation  
**SWITZERLAND DIVISION**

## CW-10 Cold Weather Quick Reference

Cold Weather Quick Reference ..... 10.1

## CW-30 De-Icing

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## COLD WEATHER QUICK REFERENCE

### EXTERNAL INSPECTION

Additional items/Allowable contamination

### DEICING

<b>CAUTION</b>	If fluid is <b>NOT</b> the colour anticipated, stop the procedure and investigate. Heavy weather conditions reduce holdover time below the lowest time given in the range. The times represented are guidelines only.
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### ENGINE START

- Select engine anti-ice on when the OAT is below 10°C and visible moisture is present decreasing visibility to 1 mile (1,600 m) or less.

### TAXING

- Single Engine taxi is authorised if the taxi surface is not slippery.
- Taxi with flaps retracted if freezing precipitation or taxiway contamination is present.
- Perform engine run-ups on both engines. *(The engines shall be accelerated to 70% N1 minimum for approximately 30 seconds at intervals not greater than 30 minutes. freezing rain, freezing drizzle, freezing fog or heavy snow, additional ice shedding shall be conducted at intervals not to exceed 10 minutes.)*

### TAKEOFF

- Engine run-up, this should be repeated just prior to takeoff to check engine parameters and ensure normal engine operation. If airport surface conditions and operations do not permit engine acceleration to 70% N1, then power settings and dwell time shall be as high as practical.
- A pre-takeoff check (nose check) of the aeroplane must be performed from the flight deck.
- Minimum oil temperature for takeoff is > -10°C.
- Reduced thrust takeoff prohibited on a runway that is contaminated.
- Fuel should not be tankered to or from a contaminated runway. The OFP may contain tanker fuel, however the decision to carry extra fuel must be made with regard to the reported runway conditions.

### LANDING

- If structural ice is suspected, minimum approach speed should be:
  - CONF FULL:  $V_{LS}+5$  and landing distance factor will be 1.1.
  - CONF3:  $V_{LS}+10$  and landing distance factor will be 1.15.

*Continue on the next page*

## COLD WEATHER QUICK REFERENCE (CONT'D)

### TAXI-IN

- Leave the flaps extended if there is a possibility of ice accumulation in the flap area.
  - Perform engine run-ups I.A.W normal procedures. Leave engine anti-ice on until engine shutdown.
  - Single engine taxi is authorised if the taxi surface is not slippery and there is no risk of ice forming on the No. 2 engine.
  - To retract flaps after ENG shutdown perform the following:
    - Set the YELLOW ELEC Pump to ON.
    - Check that the BLUE ELEC PUMP is in the AUTO position.
    - Set the BLUE PUMP OVRD to ON.
    - Retract the FLAPS and monitor retraction on ECAM page.
    - Select off the YELLOW ELEC PUMP and BLUE PUMP OVRD and resume normal procedures.
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## DEICING/ANTI-ICING PROCEDURE ON GROUND - GENERAL

### GENERAL

In all situations, it is the Captain's responsibility to decide if the ground crew must deice/anti-ice the aircraft, and/or if additional deicing/anti-icing treatment is required.

Before starting the deicing/anti-icing procedure, the flight crew must establish communication with the ground crew that will be applying the procedure.

<b>CAUTION</b>	<ul style="list-style-type: none"><li>- Make sure that the low or high-pressure ground connectors do not supply any external air to the aircraft.</li><li>- If it is necessary for the ground crew to repeatedly anti-ice the aircraft, they must deice the surfaces with a hot fluid mixture before applying a new layer of anti-icing fluid.</li></ul>
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Make sure that the ground crew uses the correct de-icing/anti-icing fluids. The aircraft can be deiced or anti-iced when the APU and engines are either stopped or running. However, do not start the engines when the ground crew is spraying fluid on the aircraft.

<b>CAUTION</b>	<ul style="list-style-type: none"><li>- The ground crew should take care when spraying deicing fluid, and make sure that the engine and APU do not ingest any fluid.</li><li>- Do not move flaps, slats, ailerons, spoilers, or elevators, if they are not free of ice.</li><li>- Always ensure that both the left and right sides of the aircraft receive the same, complete, and symmetrical deicing/anti-icing treatment.</li></ul>
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Note: *In the case of frost formation on one or several areas of the wing surface, the captain can request a local de-icing application only on the affected areas. The captain shall take care that both wings must receive the same symmetrical treatment even if frost formation does not affect symmetrically both wings.*

Note: *Flap/slat extended configuration should be considered only if required by the de-icing service provider or if flap/slat de-icing is required because of accumulation from a previous landing. Flaps and slats normally remain retracted until deicing and anti-icing are completed.*

Refer to WIH

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**DEICING/ANTI-ICING PROCEDURE ON GROUND - BEFORE SPRAYING FLUID**

**BEFORE SPRAYING FLUID**

CAB PRESS MODE SEL.....CHECK AUTO

ENG BLEED 1 + 2 .....OFF

APU BLEED..... OFF

DITCHING pb.....ON

*Outflow valve, pack valves, and avionic ventilation inlet and extract valves close.*

*This prevents de-icing fluid from entering the aircraft. Avionic ventilation is in a closed circuit with both fans running. In view of the low OAT, there is no time limit for this configuration.*

*However, in order not to affect passengers comfort, it is recommended to avoid packs inoperative for longer than 20 min.*

Note: *If the "VENT AVNCS SYS FAULT" warning appears, reset the AEVC circuit breaker at the end of the aircraft de-icing procedure.*

*AIR COND/AVNCS VENT/CTL D06 on 49VU.*

*AIR COND/AVNCS/VENT/MONG Y17 on 122 VU.*

THRUST LEVERS.....CHECK IDLE

"AIRCRAFT PREPARED FOR SPRAYING"..... INFORM GROUND CREW

**DEICING/ANTI-ICING PROCEDURE ON GROUND - UPON COMPLETION OF THE SPRAYING OPERATION**

**UPON COMPLETION OF THE SPRAYING OPERATION**

DITCHING pushbutton..... OFF  
 OUTFLOW VALVE .....CHECK OPEN  
*On the ECAM PRESS page, confirm that the outflow valve indication reaches the open green position to avoid any unexpected aircraft pressurization.*  
 ENG BLEED 1 + 2 ..... ON  
 PITOTS and STATICS (ground crew) .....CHECK

<b>CAUTION</b>	When the OAT is low (below -5 °C) during snow/freezing rain precipitations and with crosswind conditions, melted snow or raindrops may drip from the cockpit windshields and freeze on the fuselage below. Ice may then build up and possibly disturb the airflow around the static/pitot probes, and result in unreliable air data measurements during takeoff. Therefore during taxi out before takeoff beware of this possible build up of ice. The area around static/pitot probes must be free of ice/snow before starting takeoff.
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GROUND EQUIPMENT .....REMOVE  
 DE-ICING/ANTI-ICING REPORT .....RECEIVED  
*The information from ground personnel, who performed the de-icing and post-application check, must include (ANTI-ICING CODE) :*

- *Type of fluid used*
- *The mix ratio of fluid to water (for example 75/25)*
- *Local time when the holdover time began.*

● **A few minutes after completion of spraying operation :**

APU BLEED ..... ON

*Note: If the fuselage has been sprayed, there is a risk of de-icing fluid ingestion by the APU air intake, resulting in specific odors, or smoke warnings. Therefore:*

- *Keep the APU running with the APU BLEED OFF for about 5 min after spraying completion before setting the APU BLEED to ON,*
- *Consider APU BLEED OFF for takeoff.*

NORMAL PROCEDURE .....RESUME

*Apply appropriate normal procedures. Pay special attention to the flight control check. In freezing precipitation, perform the appropriate checks to evaluate aircraft icing. Base the decision on whether to takeoff, or to re-protect the aircraft, on the amount of ice that has built up on the critical surfaces since the last de-icing, as revealed by a personal inspection from the inside and outside of the aircraft. Make this inspection before the holdover time expires, or just before takeoff.*