Post de-icing/anti-icing checks

Ref. Publications:
- EASA SIB 2017-11 “Global Aircraft De-icing Standards”.

Applicability:
Air operators and National Aviation Authorities (NAAs).

Description:
There have been several incidents where the associated notification or investigation narrative refers to evidence of improper ground de-icing of the incident aircraft. In particular, one investigation report refers to inadequate post de-icing/anti-icing checks.

Commission Regulation (EU) No 965/2012, specifically implementing rule CAT.OP.MPA.250, requires commercial air transport (CAT) operators to “establish procedures to be followed when ground de-icing and anti-icing and related inspections of the aircraft are necessary to allow the safe operation of the aircraft”. The same provisions are also required through SPO.OP.175 and NCC.OP.185, applicable to “commercial operations other than commercial air transport” and “non-commercial operations with complex motor-powered aircraft”, respectively.

As described under point (b)(6) of the Guidance Material to the implementing rule on aircraft ground de-icing, GM2 CAT.OP.MPA.250, operator’s procedures should ensure that “during conditions conducive to aircraft icing on the ground or after de-icing and/or anti-icing, an aircraft is not dispatched for departure unless it has been given a contamination check or a post-treatment check by a trained and qualified person. This check should cover all treated surfaces of the aircraft and be performed from points offering sufficient accessibility to these parts. To ensure that there is no clear ice on suspect areas, it may be necessary to make a physical check (e.g. tactile)”.

Through EASA SIB 2017-11, published on 14 July 2017, the Agency recommends that operators use the latest published versions of the “Global Aircraft De-icing Standards” as the reference material to establish their ground de-icing procedures, in particular the standard SAE AS6285 “Aircraft Ground De-icing/Anti-Icing Processes”.

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1 Statens haverikommission (SHK) Report on Serious incident on 07 Nov 2016 involving an AVRO-RJ 100 with registration SE-DSV at Gothenburg/Landvetter Airport
SAE AS6285, paragraph 7.3., identifies two ways to conduct the post de-/anti-icing check: “the post De-icing/Anti-icing Check […] may either be performed as a “separate check” or “incorporated” into the de-icing/anti-icing operation.”

When the check is “incorporated” into the de-icing/anti-icing operation, as was the case in the afore-mentioned serious incident, SAE AS6285 states that “the de-icing/anti-icing sprayer will closely monitor the surfaces receiving treatment in order to ensure that all forms of frost, snow, slush, or ice […] are removed, and that, upon completion of anti-icing treatment, these surfaces are fully covered with an adequate layer of anti-icing fluid”.

The intent of this SIB is to remind NAAs and operators that personnel involved in the process of ground de-icing of aircraft should be aware of the importance of conducting effective de-icing procedures, due to the direct impact on the safety of the aircraft. In particular, once it has been determined that the aircraft needs to be de-iced, it is paramount that, after spraying the de-icing fluids, the post de-icing check is carefully conducted to identify if there is any remaining contamination and repeated de-icing treatment followed by another post de-icing check is needed. When conducting the post de-icing check as part of the “incorporated method”, suitable time should be available to allow for the de-icing steam to disperse to ensure that the de-icing operator has good visibility to conduct the post de-icing check. Lighting should also be effective and serviceable for night operations, and enclosed operator cabins should have efficient washer and wiper systems. It is also important that the cabin is positioned to be able to view the entire surface being de-iced.

At this time, the safety concern described in this SIB does not warrant the issuance of an operational directive under Commission Regulation (EU) No 965/2012, Annex II, ARO.GEN.135(c).

**Recommendation(s):**

1) EASA recommends that air operators take note of this SIB, ensure that training of the involved personnel is conducted in accordance with the applicable procedures, and check their competency.

2) EASA recommends that air operators allow suitable time and ensure adequate visibility conditions for the de-icing personnel to properly conduct the de-icing of the aircraft, including the post de-icing checks.

3) EASA recommends that air operators disseminate the SIB to their contracted ground de-/anti-icing service providers and pay particular attention to the above-mentioned recommendations during their audits by checking compliance of the ground de-icing service providers with their training syllabi and operations manuals. This process should be captured through the operator’s management system.

4) EASA recommends that NAAs pay particular attention to the above-mentioned recommendations in their oversight programmes.

**Contact(s):**

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This is information only. Recommendations are not mandatory.