

**Emails received by EASA providing feedback or comments
after the EASA 2013 safety conference on Icing.**

June 2014

This communication does not constitute any formal commitment on behalf of the European Aviation Safety Agency.

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Incoming email

Subject: Comments from Trafi CAA-FI

Hi,

first of all I'd like to thank the organizers for very informative meeting and the most nice hospitality during the conference.

As we all noticed, the area of discussion was quite wide, having many interesting and skilled presentations.

One very important message, which came up by many of the presentations, was the lack of uniform (EASA) regulatory base. This is causing continual misunderstandings and difficulties to find the correct regulatory base in several groups as the operators, the suppliers. There is too much room for imagination, as I see it.

For national authorities it roughly speaking means "No regulation – no extensive oversight"! The same shortage is affecting the entire chain and all activities in Aviation Ground handling. Due the fact that Ground handling activities are continually shopped around, and the group of suppliers and their personnel often change, the need for a single and uniform way of working should be guaranteed by an unambiguous regulatory base. The need for this can also be justified by the huge mass of occurrence reports annually received by member states. There are many indications that the players for example do not know what should be the level of training, level of language skills, what is the reason for safety culture and reporting, the sensitivity of an aircraft that they may hit etc. Also the fluids, equipment and processes need more guidance than currently available, and as officially approved in EU.

To correct this situation the Ground handling regulation should implemented by EASA as rapidly as possible. The good thing is that nearly nothing new needs to be created, because the rules already exist and are proven in practice. The easiest way for EASA is to "copy" all IATA guidance (de-icing-, fuelling pools, ISAGO) and make the new official regulation based on those. (Copying may not be the right word, but the usage with IATA's permission)

Best regards

Paavo Himmanen
TRANSPORT SAFETY AGENCY AVIATION (TraFI) CAA FI

Answering email:

Dear M. Himmanen,

Following your email sent after the EASA Safety Conference on icing, please find hereafter some information related to regulations for ground handlers.

First of all it should be noted that so far regulating these type of activities is not part of the Agency remit and therefore the Agency can't regulate these entities directly.

The approach taken so far is to regulate them through the operators, who are responsible to ensure that the activities contracted conforms to the applicable requirements, which basically means that the contracted organization has the necessary authorization or approval and commands the resources and competence to undertake the task. In addition, the operator has to integrate the contracted activities in its safety management and compliance monitoring programmes.

As you certainly know the Commission is still working on a draft regulation for ground handling activities, but it would not reattribute the responsibility of performing adequately the aircraft deicing by the air operator, directly or by means of a monitored third party.

For your information, the rule establishing the Agency and defining its responsibilities (regulation (EC) 216/2008, the Basic Regulation) is currently being revised. An A-NPA has been published and it is open for comments from any stakeholder. The topics proposed on your email and which are not within the Agency remit (e.g. approval of de-icing fluids) can be proposed by your organisation as an amendment to the scope of the Agency.

Best regards,
EASA 2013 Conference Team

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Incoming email

Subject: EASA Conference Comments

The conference was very well planned and conducted. The facilities were exceptional, and the hospitality was superb.

The presentations were well done and interesting.

The general topics of in-flight and ground icing do not really have much overlap. As a manager interested in ground de-icing, the presentations on in-flight icing were of limited relevance. If the topics had been presented concurrently in different rooms I think the time would have been used more productively.

The social gathering was excellent, and the opportunities to chat over coffee were appreciated.

Well done to EASA. I look forward to the next safety conference.

Captain John O'Neil
UPS Flight Operations

Answering email:

Dear Captain O'Neil,

Thank you for your positive feedback and the constructive comments on the conference organisation.

Best regards,
EASA 2013 Conference Team

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Incoming email

Subject: Comments on ground deicing and anti-icing

Dear Sir Madam

Please find enclosed the requested feedback

EASA feedback - aircraft deicing and anti-icing on the ground.

When a decision is made to deice and if necessary, anti-ice an aircraft on the ground there should be a discussion between the commander and the deicing representative before the process begins. If this direct communications poses a difficulty alternative forms of communications can be employed via telephone, VHF radio or ACARS as examples to retrieve this information.

This discussion between the commander and representative should contain 4 key elements.

- 1. Which components of the aircraft need treatment. It is important that both parties confirm this request and if necessary the reasons for its requirement.
- 2. How many steps and the method of application.
 - A. Local frost Prevention.
 - B. pre-step process stating which methodology.
 - C. 1 step deice only or 1 step de-anti-ice process.
 - D. 2 step deice then anti-ice or sectional deice/ anti-ice.
 - E. Local frost removal.
 - F. Fan blade De-icing.
 - G. Under wing De-icing.
- 3. Fluids types used and their concentrations, generic or brand specific holdover timings. Where possible Brand Specific holdover should be encouraged to be utilised as this will yield in most cases if not all cases better time management. While it cannot be argued that a lowest common denominator holdover times are ultimately safer, the insidious nature of time pressure that frankly can be unrealistic in larger airports need to be assessed in this context.
- 4. Vehicle quantity and their deployment. Wing wing tail or wing tail wing.

From this information the commander can tactically assess the optimum time to complete the above tasks in the overall turnaround/ground portion of the flight.

No process should be commenced without a realistic expectation that a safe aircraft departure can be achieved. It is not sufficient to dispatch an aircraft from either the gate or deicing pad with little to no expectation that the remainder of the ground time cannot be covered by the protection afforded from the remaining holdover. This will also ensure that environmental and economic concerns are met (also known as getting it right first time!). Both the commander and the deicing representative should be cognisant of this throughout the process and verbalise their respective concerns if the circumstances change that the remaining holdover time may be insufficient. In this circumstance methods for reducing application time /increasing holdover time should be employed. This may involve increasing the number of spraying vehicles, manpower and the strengthening the fluid concentrations (or combinations of the previous items) to reduce application time to the benefit of holdover time. If this cannot be facilitated then the suspension of flight operations should be considered until the weather conditions, ground facilities or airport facilities improve.

On completion of the spraying process the post deicing report should inform and confirm to the commander;

Which components of the aircraft were treated

Numbers of steps and the method of application.

Fluid types used and specify generic or brand name holdover times.

Holdover start time (local time)

Confirmation that all components are clear of ice.

Inform flight crew to hold position and wait for signal that equipment and personnel are clear.

To remind the flight crew to contact ATC on frequency xxx.xxx for taxi clearance.

Time management Time allocation and Time awareness are the cornerstones of safe deicing/anti-icing practices.

In addition to time, any new global document must include reference that processes and practices must be viewed in a geographical and a situational context. It will be impossible for a global document to deliver a global generic process without falling foul of being observed as too vague. Contextual references within a global document must be understood and should be clearly communicated so they are not mis-applied.

Paul Hannity
AER LINGUS

Answering email:

Dear Captain Hannity,

Thank you for your email and the identification of these relevant items on the de-icing operation and communications.

As it was explained in the conference, the global harmonisation initiative launched at the request of IATA and supported by ICAO and handled by SAE is developing a Standard for the de-icing methods (in addition to quality assurance and training Standards). This new Standard will be mostly based on SAE document ARP4737 and AEA Ground de-icing Recommendations. The contents of your email should be addressed in the new Standard for de-icing methods (it will be named as AS6285). From EASA, we invite you to pay attention to the process of development of these Standards, so you can make comments in case your below points are not adequately addressed.

Best regards
EASA 2013 Conference Team

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Incoming email

Subject: Conference Feedback

Dear Sir/Madam,

As my company both designs and manufactures the TKS ice protection system I was primarily interested in the in-flight icing portion of the conference and in particular any discussions surrounding supercooled large droplets (SLD).

Although this topic was covered in the two presentations provided by Airbus personnel it was repeatedly stated that there has never been a serious incident or accident due to in flight icing conditions for aircraft with a MTOW >60klb and that this safe in-service history and a comparative analysis would be used as a means of compliance. With this in mind it would have been interesting to hear, in greater detail, about the challenges that will be faced when attempting to certify an aircraft that cannot rely upon this method.

During the first day of the conference there was a question from one of the participants about whether EASA had any plans to add SLD requirements to CS23 aircraft, the answer that came back was short and along the lines of - there were no plans at present. I believe this would have been an interesting topic to expand on and perhaps even a presentation on the subject could have been justified as there were representatives from a number of CS23 aircraft manufacturers present at the conference. For instance, it would have been interesting to hear about how EASA views the work completed by the Part 23 Icing ARC (chartered by the FAA to review the proposed part 25 regulations and guidance for SLD, mixed phase and ice crystals that was recommended by ARAC and to recommend how they needed to be modified for part 23).

Best regards,

Alex Baty MEng
CAV Aerospace - Ice Protection

Answering email:

Dear Sir,

Thank you for your feedback and for your participation in the EASA safety conference.

The Agency indeed did not communicate on CS-23 icing rulemaking (including SLD conditions) because at the time of preparation of the conference, we had not identified a rulemaking task dedicated to the subject.

An ARC report on Part-23 icing has indeed been issued to the FAA. As of today, as you probably know, rulemaking effort is allocated to the re-organisation of the Part-23/CS-23. This project is conducted in cooperation between FAA and EASA with the objective to have both rules harmonised as far as possible. New icing rulemaking based on the ARC report could be performed either separately through a dedicated rulemaking task, or it could be incorporated in the frame of the Part-23/CS-23 re-organisation. The current plan envisages the second option. However, we cannot yet communicate on the technical content and we invite you to review the NPRM/NPA when they will be available for comment.

Best regards
EASA 2013 Conference Team