

## SAE ICAO IATA Council for Globalized Aircraft Deicing Standards Charter and Terms of Reference

### Foreword

This document provides historical background, governance structure and objectives of the SAE ICAO IATA Council for Globalized Aircraft Deicing Standards.

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## 1. Scope

This document provides the terms of reference for the SAE ICAO IATA Council for Globalized Aircraft De-icing Standards (“Council”). The document purpose is to:

- provide background information on initiative that led to the creation of the Council
- provide information on the Council’s relationship to SAE, ICAO and IATA
- list the membership of the Council
- define the objectives of the Council
- define the structure of the Council
- define the roles of the stakeholders
- provide operational guidance
- give guidelines on management and control of activities
- propose channels of communication and conflict resolution
- refer to other relevant guidance material.

## 2. Applicable documents

### 2.1. SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), [www.sae.org](http://www.sae.org).

- ARP 4737 Aircraft Deicing/Anti-Icing Methods
- ARP 5149 Training Program Guidelines for Deicing/Anti-Icing of Aircraft on Ground
- ARP5646 Quality Program Guidelines for Deicing/Anti-Icing of Aircraft on the Ground

### 2.2. Association of European Airlines Publications

Available from the Association of European Airlines (AEA) at [www.aea.be](http://www.aea.be).

- AEA Recommendations for De-icing/Anti-icing Aeroplanes on the Ground, 26th Edition, August 2011.
- AEA Training Recommendations and Background Information on De-icing/Anti-icing of Aeroplanes on the Ground, 8th edition, August 2011.

### 2.3. FAA Publications

Available from the Federal Aviation Administration (FAA) at <http://www.faa.gov/>.

- Ground Deicing and Anti-icing Program, Advisory Circular AC120-60B, Federal Aviation Administration, 2004.
- FAA Standardized International Aircraft Ground Deice Program (SIAGDP), 2008.

## **2.4. ICAO Publications**

- ICAO DOC 9640 Manual of Aircraft Ground De-icing/Anti-icing Operations Ed 2

## **2.5. Transport Canada Publications**

Available from the Transportation Development Center, Transport Canada, 330 Sparks St., 26th Floor, Ottawa ON K1A 0N5, Canada and at

<http://www.tc.gc.ca/eng/civilaviation/standards/commerce-holdovertime-menu-1877.htm>.

- Guidelines for Aircraft Ground Icing Operations. TP14052E, April 2005.

## **2.6. ISO Publication**

ISO publications make reference to the AEA documents listed above

- ISO 11076:2006 Aircraft -- Ground-based de-icing/anti-icing methods with fluids

# **3. Background**

## **3.1. Introduction**

Many National Aviation Authorities (NAAs), ICAO, SAE, and airline associations (e.g. AEA) have developed recommended practices for aircraft ground de-icing/anti-icing with the intention of providing unified standards. Experience has shown that differences are significant enough to prevent operators from adopting any single one of the many standards published.

T. Fodor of IATA approached the SAE G-12 Steering Group in San Francisco in May 2011 and explained that IATA had received a mandate from its Operations Committee (OPC) comprised of the major airline members to develop globally harmonized de-icing procedure. Airlines realized that safety and costs would be improved by the adoption of such harmonized standards.

The problem of multiple standards became more apparent as centralized deicing facilities (CDF) started operating in many countries. In some instances, over 80 airlines fly into a centralized facility, each attempting to impose its own standard for deicing on the staff for its own aircraft. Staff would have to be trained for each procedure resulting in a multitude of procedures, high training costs and a complexity that added to the risk of non-compliance to the multiple procedures. Many CDF faced with impossible tasks of training its staff to many procedures, imposed their own procedures with the approval of the national regulatory authority. Flying crews have to learn the difference between each CDF, which adds to complexity of their tasks. Service providers are being audited to different standards. IATA proposed to work with SAE to develop globally harmonized deicing standards.

SAE G-12 Steering Group welcomed the IATA's request on the condition that it would not lead to duplication of work or duplication of standards. IATA agreed it would not develop its own technical standard separately but use the SAE process for developing technical standards and use or refer to the SAE developed standards. IATA and SAE agreed to enter into a formal cooperation agreement.

SAE and IATA became sponsors of a newly created Council for Globalized Aircraft De-icing Standards. At its first meeting in Montreal, on November 10, 2011, ICAO became a sponsor of the Council as well.

At this first meeting, necessity for harmonization was stated to be 1) the improvement of safety by reducing the chance of discrepancy between the de-icing performed and the de-icing expected by the flight crew as well as simplifying communication, 2) increase in efficiency by reducing the training required by service providers, reducing the costs of airline audits, and simplifying contracts. It was resolved that the promotion of harmonized aircraft ground deicing procedures, training procedures and quality control procedures would be the focus of the Council. It was further resolved, at least for the time being, to restrict the scope of the project by excluding aircraft deicing fluid specifications, publication of holdover times, ground service equipment and facilities from the terms of reference of the Council.

### **3.2. SAE ICAO IATA Memoranda of Understanding**

Activities of the Council have been formalized through formal Memoranda of Understanding that will facilitate exchange of information and documents between these organizations.

## **4. Scope, Objectives and Expected Benefits**

### **4.1. Project Scope**

The standards the Council wishes to see harmonized focus on the application of deicing fluid and include 1) aircraft ground deicing methods, 2) training procedures for aircraft ground deicing and 3) quality control procedures. Standardized communication between the ground deicing crew and the flight crew is also within the scope of this effort. Aircraft deicing and anti-icing fluid specification, publication of holdover times, ground service equipment specifications and airport facilities standards are beyond the project scope.

### **4.2. Objectives**

It is the objective of the Council:

1. that the SAE documents of section 2.1 be modified such that they become accepted harmonized standards.
2. to facilitate the adoption of any other new SAE standard the SAE G-12 Technical Committees may recommend to achieve such harmonization

The other documents listed in section 2.2 to section 2.5 will be used as reference for comparison to achieve harmonization.

To that effect, the Council:

- will facilitate the development of such harmonized standards by promoting participation of key stakeholders on the SAE G-12 Methods Committee and Training and Quality Programs Committee;
- use its resources to facilitate the sharing of documents for comparison purposes
- make recommendations to SAE G-12 and other organizations to promote the development and harmonization of standards
- will facilitate stakeholder acceptance of proposed changes to existing standards
- will recommend the adoption of said harmonized SAE standards by regulatory authorities, airlines, CDF, service providers, and airframe manufacturers, directly or by reference.

### 4.3. Expected benefits

Expected benefits of harmonization of deicing technical standards are:

- Reduction of the complexity level of deicing procedures for ground crews leading to improved safety
- Simplification of processes for flight crews leading to increased levels of safety
- Reduction in the number of training events
- Reduction of the number of standards
- More commonality in audit standards
- Cost reductions
- Better understanding and awareness worldwide of deicing requirements
- Improved communications between all stakeholders

## 5. Governance Structure

### 5.1. Name

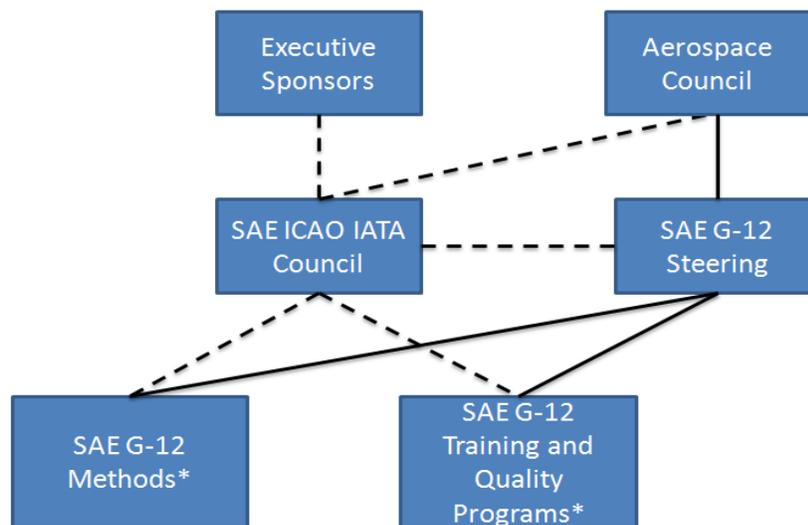
The name of this group is this “SAE ICAO IATA Council for Globalized Aircraft De-icing Standards”.

### 5.2. Organizational Chart

The purpose of Chart 1 is to show project reporting lines.

Project reporting lines (dashed lines) do not imply a technical approval line of authority. Formal SAE reporting lines are shown with solid lines. Technical approval of standard is done according to SAE processes which are briefly described in section 6.

Chart 1



\* Create workgroups, as required

- - Project reporting lines

— SAE reporting lines

### 5.3. Executive Sponsors

The executive sponsors of the Council will support, assist with the organization and facilitate the effectiveness of the Council. The executive sponsors are IATA, ICAO and SAE.

At the time of publication of this Charter and Terms of Reference the designated executive sponsors are:

- Director, Operations IATA SO&I (Jens Bjarnason)
- Manager Aerospace Standards, SAE International, (Ed Manns, represented by Laura Feix)
- Technical Officer, Flight Operations Sections, Air Navigation Bureau, ICAO (Miguel Marin)

Responsibilities of the executive sponsors:

- Assist with industry strategic guidance
- Lobby key stakeholders at top management level of their own organizations (liaison to executive groups and board members)
- Facilitate issue resolution that cannot be resolved at the Council level

### 5.4. Membership

The members of the Council are:

- Airlines for America (A4A)
- Association of European Airlines (AEA)
- Airframe Manufacturers
  - Airbus
  - Boeing
  - Bombardier
  - Embraer
- CAAC
- IATA/DAQCP
- De/Anti-icing International Vendor Audit Checklist (DEVA Checklist)
- EASA
- FAA
- IATA (Sponsor)
- ICAO (Sponsor)
- IFALPA
- SAE (Sponsor)
- SAE G-12, AEA liaison
- SAE G-12, Chair Steering Group
- SAE G-12, Co-chairs Methods Committee
- SAE G-12, Co-chairs Training and Quality Program Committee
- SAE G-12, Steering member, ANA representing Japanese airlines
- South American Regulator, to be determined
- State Civil Aviation Authority Ministry of Transport of the Russian Federation (SCAA Mintrans of Russia)
- Transport Canada

- Commercial Flight Standards
- Transportation Development Center

## **5.5. Council Leadership**

At the time the publication of this Charter and Terms of Reference:

- Chair: Jacques Leroux, SAE G-12 Chair, Steering Group
- Vice-Chair: Jens Bjarnason, Director, Operations IATA SO&I
- Secretary: Laura Feix, SAE

Roles and responsibilities of the leadership:

- Chair the Council meeting
- Prepare agenda
- Issue minutes
- Ensure SAE methodology is used
- Ensure appropriate resource allocation to the working groups
- Ensure agreed schedules are met
- Elevate decision making to the Sponsors if issues, conflicts cannot be resolved by the Council
- Promote activities of the Council

## **5.6. Technical Committees (Methods, Training and Quality Programs)**

The two technical committees, responsible for the preparation of the standards, are the SAE G-12 Methods Committee (SAE G-12 M) and the SAE G-12 Training and Quality Programs Committee (SAE G-12 T).

The SAE Committee Co-chairs will lead and manage the technical aspects of the project. Their roles and responsibilities are:

- Develop project plan with resource assignment and timeline
- Maintain the action plans and timeline
- Regularly review project progress
- Create project working groups as required
- Follow SAE methodology and processes
- Support working group communication to the Council ensuring high levels of participation
- Report any unresolved issues to the Council for resolution

## **5.7. Communications**

SAE will provide a web site accessible to all members where agendas for meetings, minutes of meetings and working documents will be readily accessible.

A roster of participants will be maintained on this web site.

The Council Chair, in accordance to SAE procedures, will maintain the roster.

Council will report at least annually to SAE G-12 Steering Group, SAE G-12 M and SAE G-12 T on its recommendations and progress.

## **5.8. Meeting Frequency**

It is expected that the Council will meet in person at least twice a year, once at the same time as the SAE G-12 annual May meeting and once during the mid-year SAE G-12 Committee meeting, usually in late October or early November in Montreal.

More meetings will be called as necessary.

Telephone and remote computer communications will be provided for the mid-year and additional meetings.

Members of the Council are invited and encouraged to attend the annual SAE G-12 Steering Committee meeting.

## **5.9. Major Interdependencies**

Due to the large number of regulators, airlines associations and quality pools who have all developed aircraft ground de-icing/anti-icing, training and quality control procedures, it is extremely important to have them participate in this project so that they can shape the standard to fit their common needs and thus gain acceptance for the standards.

## **6. Technical Standards Approvals**

The process for approving technical standards shall follow the SAE Aerospace Council Organization and Operating Procedures.

In brief, the process involves:

1. Approval by the technical committee of a new or revised standard
2. Nomination of a sponsor
3. Drafting the new standard by the sponsor
4. Vote by members of the technical committee
5. Resolution of technical negative votes and editorial comments
6. Vote by the SAE Aerospace Council (not to be confused with the SAE ICAO IATA Council for Globalized Aircraft De-icing Standards which is not part of the formal approval of technical standards)
7. Issuance of the technical standard

## **7. Document Revision**

The Terms of Reference document shall be revised, as required, by the Council.