

1. SCOPE

This SAE Aerospace Recommended Practice (ARP) establishes standard phraseology for the communication procedures during aircraft ground deicing/anti-icing operations.

NOTE: The minimum requirements to accomplish an aircraft deicing/anti-icing operation are specified in AS6285.

Clear concise standard phraseology between the groundcrew and flightcrew is an important part of the deicing/anti-icing process. It plays a key role in the overall safety of the deicing program. Historically, flightcrew and groundcrew have had to deal with differing communication scripts at multiple airport locations. This has led to unsafe situations, including aircraft moving before the deicing process has been fully completed.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AS6285 Aircraft Ground Deicing/Anti-Icing Processes

2.2 FAA Publications

Available from Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591, Tel: 866-835-5322, www.faa.gov.

Pilot/Controller Glossary

2.3 ICAO Publications

Available from International Civil Aviation Organization, 999 University Street, Montreal, Quebec H3C 5H7, Canada, Tel: +1 514-954-8219, <http://www.icao.int>.

Annex 2 Rules of the Air

Annex 10 Aeronautical Telecommunications - Volume I - Radio Navigation Aids

Annex 10 Aeronautical Telecommunications - Volume II - Communication Procedures Including Those with PANS Status

Annex 11 Air Traffic Services - Air Traffic Control Service, Flight Information Service, Alerting Service

Doc 4444 Procedures for Air Navigation Services - Air Traffic Management

2.4 NAV Canada Publications

Available from NAV Canada, AEROPUBS Office, 77 Metcalfe Street, Ottawa, ON K1P 5L6, Canada, Tel: +1 866-731-7827, www.navcanada.ca.

Ground Traffic Phraseology

IFR Phraseology

VFR Phraseology

2.5 Transport Canada Publications

Transport Canada documents are available from Transport Canada, Tower C, Place de Ville, 330 Sparks Street Ottawa, Ontario K1A 0N5, Tel: 1-800-305-2059, www.tc.gc.ca.

AC 100-001 Glossary for Pilots and Air Traffic Services Personnel

TP 14052 Guidelines for Aircraft Ground Icing Operations

2.6 Other Regulatory and Air Operator Publications

Specific state regulatory authority and/or air operator documentation may supplement or supersede the information in this ARP.

3. PHRASEOLOGY

3.1 General Comments

Communication (contact) shall be established using the phraseology in this document between the flightcrew and the groundcrew before initiating services.

Words italicized in parentheses—(xxxx)—indicate that specific information, such as a level, a place, or a time, etc., must be inserted to complete the phrase, or, alternatively, that optional phrases may be used. Words in square brackets—[xxxx]—indicate optional additional words or information that may be necessary in specific instances. Within the phraseologies, where the term “NOTE” is followed by a numeral, a superscript numeral #—has been placed within the phraseology to indicate the specific element where the note is applicable.

In locations with unique or specific operating requirements and/or technologies, supplemental phraseology or modifications to the phraseology in this ARP may be required. This may include locations or operations where approved alternate means of communications are utilized, as specified in AS6285, etc. This is permitted, pending the required communication elements are maintained.

3.2 Groundcrew and Flightcrew Phraseologies for Deicing/Anti-Icing Operations

3.2.1 Normal Operations

Table 1

Circumstances	Crew	Phraseologies
1. Prior to deicing/anti-icing , groundcrew will contact the flightcrew to advise:	a. Groundcrew	a. (<i>aircraft identification or call sign</i>) CONFIRM BRAKES SET, AIRCRAFT CONFIGURED, AND TREATMENT REQUIRED
	b. Flightcrew	b. [AFFIRM] BRAKES SET, AIRCRAFT CONFIGURED, REQUEST (<i>specify treatment requirements including surfaces to be treated, fluid type(s), deicing only, manual deicing methods (i.e., forced air (where available and use is authorized), anti-icing only or deicing/anti-icing (two-step (“HOLDOVER REQUIRED”)), etc.</i>)
	c. Groundcrew	c. HOLD POSITION, DEICING STARTS NOW, [MONITOR THE (<i>visual positive hold control method</i>)] ¹ NOTE 1: Required for engines-on deicing only where visual positive hold control is utilized.
	d. Flightcrew	d. HOLD POSITION, [MONITOR THE (<i>visual positive hold control method</i>)]¹ NOTE 1: Required for engines-on deicing only where visual positive hold control is utilized.

Circumstances	Crew	Phraseologies
<p>2. On completion of the deicing/anti-icing procedure, groundcrew will contact the flightcrew to advise:</p>	a. Groundcrew	<p>a. <i>(aircraft identification or call sign)</i> DEICING COMPLETE, <i>(name of final fluid type applied)</i>¹</p> <p>NOTE 1: Omit fluid type information if deicing was solely performed using a manual method.</p> <p>b. <i>(fluid manufacturer, brand/trade name)</i>, <i>(mixture ratio (in percent))</i>²</p> <p>NOTE 2: These components are required for anti-icing with Type II, III, and IV fluids only. Omit if one-step deicing only procedure was performed or if deicing was solely performed using a manual method.</p> <p>c. ANTI-ICING BEGAN AT <i>(HH:MM (local time))</i>³, POST-DEICING CHECK COMPLETED, DEICING⁴ PERSONNEL AND EQUIPMENT ARE SAFELY AWAY</p> <p>NOTE 3: Where a deicing only procedure was performed, replace this element with: "HOLDOVER TIMES DO NOT APPLY."</p> <p>NOTE 4: In locations where deicing takes place exclusively at designated deicing facilities (i.e., CDFs, DDFs, etc.), "DEICING" can be omitted from this element where no other groundcrew personnel or ground support equipment are within the equipment restraint area (ERA) or within the aircraft footprint or expected to be within these areas.</p> <p>d. HOLD POSITION AND CONTACT <i>(departure control/advisory position (i.e., ATC) or groundcrew (as applicable))</i> FOR <i>(departure method, i.e., taxi, pushback, etc.)</i></p> <p style="text-align: center;"><u>MANUAL DEICING ONLY PROCEDURE</u> <u>phraseology example:</u></p> <p>"AIRLINE 123, DEICING COMPLETE, HOLDOVER TIMES DO NOT APPLY, POST-DEICING CHECK COMPLETED, DEICING PERSONNEL AND EQUIPMENT ARE SAFELY AWAY, HOLD POSITION AND CONTACT PAD CONTROL ON 131.17 FOR TAXI."</p> <p style="text-align: center;"><u>ONE-STEP DEICING ONLY USING FLUID PROCEDURE</u> phraseology <u>example:</u></p> <p>"AIRLINE 123, DEICING COMPLETE, TYPE I, HOLDOVER TIMES DO NOT APPLY, POST-DEICING CHECK COMPLETED, DEICING PERSONNEL AND EQUIPMENT ARE SAFELY AWAY, HOLD POSITION AND CONTACT GROUNDCREW FOR PUSH AND START."</p> <p style="text-align: center;"><u>ONE-STEP DEICING/ANTI-ICING, TWO-STEP DEICING/ANTI-ICING or ONE-STEP ANTI-ICING ONLY</u> phraseology <u>example:</u></p> <p>"AIRLINE 123, DEICING COMPLETE, TYPE IV, ACME CLEANGREEN 75%, ANTI-ICING BEGAN AT 14:35, POST-DEICING CHECK COMPLETED, DEICING PERSONNEL AND EQUIPMENT ARE SAFELY AWAY, HOLD POSITION AND CONTACT GROUND ON 121.9 FOR TAXI."</p>
	b. Flightcrew	<p>b. HOLD POSITION AND CONTACT <i>(departure control/advisory position (i.e., ATC) or groundcrew (as applicable))</i> FOR <i>(departure method, i.e., taxi, pushback, etc.)</i></p>

3.2.2 Abnormal Operations

3.2.2.1 Abnormal Occurrences

Table 2

Circumstances	Crew	Phraseologies
<p>1. For a declared emergency, mayday, or pan pan</p> <p>NOTE: When an urgency, distress, or other emergency call has been received or declared by an aircraft or deicing equipment during deicing operations (transmitted to all stations by the groundcrew). Further guidance to be provided after these transmissions have taken place.</p>	a. Groundcrew	<p>For aircraft (transmitted by groundcrew):</p> <p>a. EMERGENCY, EMERGENCY, EMERGENCY, ALL AIRCRAFT STOP, HOLD POSITION</p> <p>For deicing equipment (transmitted by groundcrew):</p> <p>b. EMERGENCY, EMERGENCY, EMERGENCY, ALL TRUCKS STOP DEICING, PROCEED TO THE (<i>identify location based on local operation (i.e., safe zone, predetermined safety area, equipment staging area, etc.)</i>) AND STANDBY FOR FURTHER</p>
<p>2. For deicing equipment proximity sensor activation (physical)</p>	a. Groundcrew	a. A SAFETY PROXIMITY SENSOR (<i>identify location on the deicing equipment</i>) HAS BEEN ACTIVATED ON THE (<i>specify specific location on the aircraft</i>), CONDUCTING INITIAL CHECK, STANDBY FOR FURTHER INFORMATION
	b. Flightcrew	b. ROGER, STANDING BY FOR FURTHER INFORMATION
	c. Groundcrew	c. (<i>title of individual (role) that performed check (other than the deicing operator that made contact)</i>) HAS PERFORMED A VISUAL CHECK ON THE AFFECTED AREA (<i>provide results of the check (e.g., there is no visual damage detected or damage is suspected or present)</i>), ADVISE YOUR INTENTIONS
<p>3. Engine inlet contamination has been detected/observed after deicing/anti-icing has commenced</p> <p>NOTE: Applicable to locations where engines-on deicing/anti-icing is performed.</p>	a. Groundcrew	a. CONTAMINATION HAS BEEN DETECTED IN YOUR ENGINE INLET(S), (<i>indicate both or specific engine number(s) and describe contamination details</i>), GROUNDCREW CAN REMOVE THIS CONTAMINATION ONSITE WITH ENGINES SHUTDOWN USING (<i>advise specific removal method(s)</i>), ADVISE YOUR INTENTIONS
<p>4. Contamination observed after completion of deicing/anti-icing and release of aircraft</p> <p>NOTE: If unable to contact the flightcrew, contact must be made to Air Traffic Control (ATC) (i.e., ground, tower, etc.) or on the maneuvering frequency (in the absence of ATC services)</p>	a. Groundcrew	a. CONTAMINATION WAS OBSERVED (<i>describe area (i.e., within the flaps tracks)</i>), RECOMMEND YOU RETURN TO (<i>specify location (i.e., the CDF, deicing pad/bay, stand/gate, etc.)</i>) FOR RETREATMENT
	b. Flightcrew	b. ROGER, WILL RETURN TO (<i>location specified</i>) FOR RETREATMENT

3.2.2.2 Interrupted Operations

A deicing/anti-icing treatment should be continuous and as short as possible. If a treatment is interrupted (for example, a truck runs out of fluid), the flightcrew shall be immediately informed stating:

- a. The reason for interruption;
- b. The actions to be taken (in consultation with the flightcrew);