BY ORDER OF THE COMMANDER
MCCONNELL AIR FORCE BASE (AMC)

MCCONNELL AIR FORCE BASE
INSTRUCTION

11-220

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Flying Operations

DE-ICING PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction outlines procedures to be used when deicing of aircraft is required for mission accomplishment. This instruction augments MAFBI 21-106, Severe Weather Procedures and MAFB Operations Plan 718-02, Snow and Ice Control. This instruction is applicable to all 22d Maintenance Group (MXG), 22d Operations Group (OG), 22d Mission Support Group (MSG), 22d Medical Group (MDG), 22d ARW Command Post (22 ARW/CP) and 931st Operations Group (931 OG) personnel.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed.

Chapter 1

GENERAL INFORMATION

1.1. General. Based on meteorological data, planning procedures to de-ice aircraft will be implemented at McConnell from 1 November through 31 March, unless otherwise dictated by both the 22 and 931 OG/CCs.

1.2. De-icing Execution Authority. The OG/CC or higher is the execution authority for de-icing procedures at McConnell AFB. De-icing and anti-icing fluids are approved for use in aircraft technical orders, however only de-icing fluid is used at McConnell AFB.

1.3. De-icing "Foxtrot" Certification. Aircrews (generally Pilots and Navigators) will receive de-icing ground training from a certified De-icing "Foxtrot." The ground training will consist of familiarization with a variety of topics to include (but not limited to): MAFBI 11-220, cold weather Notes, Cautions and Warnings from the Dash-1, defrosting, de-icing process, responsibilities, and aircrew procedures. Once the ground training has been completed, the instructor will complete an AF Form 1522 or electronic equivalent and their Sq/CCs will certify the individual as a De-icing "Foxtrot." Squadrons will be responsible for tracking which individuals are certified as De-icing "Foxtrot" on their unit Letter of X's.

1.4. De-frosting Procedures. The Kansas Department of Health and Environment (KDHE) has approved de-frosting of aircraft on all parking spots on the MAPA. The De-icing Foxtrot and the Maintenance De-ice Super will determine if aircraft will be defrosted on the MAPA or if they will use the de-ice pits. During typical defrosting operations, a small amount of deicing fluid is used. To minimize the amount of deicing fluid entering the trench drains (in coordination with KDHE), defrosting should not be accomplished in a location (such as the aircraft parking spots) where liquid runoff from melting or falling precipitation would carry the deicing fluid used during defrosting into the trench drains. Aircraft may be defrosted on the deicing pits at any time, regardless of the presence of runoff.

1.5. De-icing Procedures. Due to environmental impact, de-icing aircraft on the MAPA will not be conducted unless the requirements outlined in **Chapter 4** have been met. McConnell AFB utilizes de-icing "pits" located on taxiway Alpha to apply de-icing fluid to aircraft in order to remove accumulated snow, ice or frost before takeoff. Fluid runoff that occurs during de-icing is trapped in an underground holding tank for proper handling by 22 CES.

1.6. De-icing Capability. Normal de-icing procedures allow a maximum of two medium sized aircraft (e.g., KC-135) to de-ice simultaneously using de-icing pits Charlie and Delta. The first aircraft to arrive during de-icing will be parked on the pit furthest forward in the taxi flow. The aircraft deicing time is defined as the time from when the first deicing truck begins spraying until all the inspections are complete. This time is listed in **Attachment 6.**

1.7. De-icing Coordination. All phone numbers have been removed from this regulation. The phone list can be found on the 22 OG/OGV SharePoint. The following agencies should be included in any planning meeting or coordination revisions: 22 OSS/DO, 344 ARS/DO, 349 ARS/DO, 350 ARS/DO, 22 OG/OGV (Ops Group Stan Eval), 22 OSS/OSOC (Current Operations), 18 ARS/DO, 924 ARS/DO, 22 OSS/OSOS Wing Scheduling, 22 OSS/OSA (Airfield Management), 22 AMXS (Aircraft Maintenance), 22 MXG/QA (Maintenance Quality

Assurance), 22 MXS (Maintenance Squadron), 22 CES/CEOHH (Snow Removal), 22 CES/CEAN (Environmental) and 22 CES/CEOIF (Liquid Fuels Maintenance).

Chapter 2

ALERT AIRCRAFT/PRIORITY LAUNCH PROCEDURES

2.1. Alert Aircraft Launch Procedures. This instruction pertains primarily to de-icing aircraft used to execute training or TACC-tasked operational missions. When weather conditions warrant, aircraft supporting a TACC-tasked alert are normally fully (not tail out) Hangered if hangar is available.

2.2. OPLAN 801X. De-icing of aircraft supporting OPLAN 801X will be IAW MAFBI 10-101, Alert Planning Factor and Procedures.

2.3. Other Priority Missions. Aircraft supporting priority level 1A and 1B missions should be Hangered, when space is available. Hangaring of aircraft will be coordinated during the daily scheduling reconciliation as outlined in **Paragraph 6.2.6.**

2.4. Hangered Aircraft. Specific procedures for launching Hangered aircraft are addressed in **Attachment 4.**

2.5. Alternate De-icing Procedures for Alpha Alert Aircraft. If Alpha Alert aircraft require de-icing on a location other than the de-icing pits, refer to **Chapter 3.**

Chapter 3

ALTERNATE DE-ICING LOCATION

3.1. Alternate De-icing Location. If the de-icing pits are unusable or unable to accommodate the aircraft flow dictated by operational mission priorities, the MAPA is designated as the alternate aircraft de-icing location.

3.2. Approval Authority. Due to probable violation of KDHE environmental regulations, 22 ARW/CC approval is required for use of the alternate de-icing location.

3.3. Impact to Outside Agencies. If the alternate de-icing location is used, notify the environmental office (22 CES/CEAN). KDHE will need to be informed since the environmental permit may be violated.

Chapter 4

AIRCRAFT DE-ICING CONDITION (ICECON)

4.1. General. During the de-icing season, the actions of various agencies will be coordinated through the declaration of a standard de-icing condition called the ICECON. The ICECON will have four levels of increasing intensity: W, X, Y, Z. The current condition will be tracked by Command Post. The Command Post will notify the OG/CC (or OG/CD), 22 OSS Scheduling, MOC and the De-ice Foxtrot of any ICECON change, if not previously notified. The ICECON can only be decreased by the De-icing Foxtrot.

4.1.1. ICECON NONE. This level is for the period when not in ICECON W, X, Y, or Z.

4.1.2. ICECON W. This level is initiated at the start of the de-icing season by the 22 OG/CC. The base will remain at this level or higher until the end of the de-icing season. Units should ensure all pertinent support and aircrew personnel are trained for de-ice operations.

4.1.3. ICECON X. During this condition, 22 OSS Scheduling will conduct their daily schedule reconciliation as described in **Paragraph 6.2.6** with emphasis on pit times, de-icing LFA's and sortie priorities. This level is initiated by the Chief, OSS Scheduling under the following conditions:

4.1.3.1. An icing forecast was issued by the 22 OSS Weather flight or Command Post.

4.1.3.2. The forecasted weather calls for a relative humidity ≥ 80% and the temperature is < 35° F within the next 24 hours.

4.1.3.2.1. The De-icing Foxtrot or Chief, OSS Scheduling suspects de-icing will be required.

4.1.3.3. ICECON Y or Z has been initiated.

4.1.3.4. If it is the last duty day of the week (day prior to a weekend, holiday, etc).

4.1.3.5. If there is frost forecasted and any of the defrosting equipment is inoperable. NOTE: Dependent on a sortie's mission priority and/or other factors that may affect the accomplishment of a high-visibility mission, the Chief of OSS Scheduling, in coordination with the De-icing Foxtrot, may elect to apply ICECON X to specific missions despite none of determining factors in **Paragraphs 4.1.3.1 – 4.1.3.5** being met.

4.1.4. ICECON Y. This level can be initiated by either: the Chief, OSS Scheduling, De-icing Foxtrot, the De-ice Pro Super, the 22 OSS Weather Flight or Command Post. It should be initiated when frozen precipitation is occurring, when the relative humidity is greater than 80% and the temperature is below 35°F or when any flyable aircraft still have ice on them (that can only be removed through de-icing). During this condition, the De-icing Foxtrot will inspect every aircraft scheduled to fly 0+30 prior to the aircrew's de-icing LFA and 0+30 prior to scheduled aircrew's show at the aircraft. For a depiction of these times in relation to pit times, reference the McConnell Deicing Timing Chart in **Attachment 6**. Additionally, the De-icing Foxtrot will inspect every aircraft on station that is not fully hangered and brief the next De-icing Foxtrot at the end of their shift (either via phone or in person).

4.1.5. ICECON Z. This level can only be initiated by the De-icing Foxtrot when he/she determines that de-icing will be required. During this condition, de-icing is in progress.

Chapter 5

TRANSIENT AIRCRAFT

5.1. Transient Alert Responsibilities. Transient Alert will brief transient crews on McConnell's de-icing procedures if icing conditions are forecast and/or present.

5.2. De-icing Scheduling. OSS scheduling does not maintain visibility on the schedules of transient aircraft. Transient alert will inform AMXS of any transient aircraft that may require de-icing. During the schedule reconciliation, AMXS will raise all de-icing issues for transient aircraft and a pit time will be scheduled based upon the priority of the mission.

5.3. Coordination. Transient Alert or the aircraft commander will coordinate de-icing requirements through the CP and MOC.

5.4. De-icing Priority. Transient aircraft will be de-iced based on mission priority. If not on an operational mission, transient aircraft will have the lowest priority for the de-ice pits. The Duty Scheduler and the De-icing Foxtrot will work the transient aircraft into the de-icing flow based on priority.

5.5. Procedures. Transient aircrews will follow the published taxi flow for the de-icing pads. If unable to taxi, transient aircraft will be towed to the pits for de-icing. Transient Alert is responsible for coordinating/assisting/performing de-icing transient aircraft.

5.5.1. NOTE: Large aircraft: Refer to AP1 for de-icing restrictions

5.5.2. NOTE: MXG personnel are only trained and qualified to de-ice KC-135s. If other airframes need de-icing it would need to be accomplished by qualified individuals on that airframe.

Chapter 6

22 OSS SCHEDULING ACTIONS

6.1. General. OSS Scheduling will consult the McConnell Deicing Timing Chart in **Attachment 6** for the deicing planning factors. Due to de-ice pit availability, only two aircraft will be scheduled to de-ice at once. OSS Scheduling will minimize takeoffs between 0200L and 1000L. This is to maximize the effects of solar heating.

6.2. Day Prior Actions.

6.2.1. OSS Scheduling will consult with Weather flight and Maintenance by 0800L to reconcile any forecasts or equipment limitations that would drive an ICECON of X or greater for the following flying day.

6.2.2. OSS Scheduling will post the current ICECON and expected ICECON for the following flying day on the McConnell AFB One Stop SharePoint site NLT 1200L. If ICECON X procedures are applied to specific sorties, but not all, OSS Scheduling will post "ICECON X procedures applicable" in the mission notes of that sortie in GDSS2 by 1200L.

6.2.3. When ICECON X or greater is in effect, OSS Scheduling will annotate sortie priority, de-icing LFA times, expected alert times (if applicable) and de-ice pit times in the mission notes (sortie priority in the mission alias) section of the daily corrected flying schedule.

6.2.4. De-icing LFAs will be IAW McConnell Deicing Timing Chart located in **Attachment 6**.

6.2.5. OSS Scheduling will annotate on the daily corrected flying schedule an expected alert time IAW TACC standard timing for all locally generated TACC-tasked missions to be used if de-icing procedures are not implemented on the day of flight.

6.2.6. Schedule Reconciliation (as required). OSS Scheduling will coordinate the daily schedule reconciliation electronically or in person. The Chief of OSS Scheduling will determine when coordination is done in person, rather than electronically. The following agencies will be represented: OSS/OSOS, De-icing Foxtrot, AMXS, MXS, Airfield Operations, Weather flight, CES, CP Rep (only for OPLAN 801X support missions), Flying Squadron Reps and 931 OG.

6.2.7. Any recommendations for cancellations or changes during the schedule reconciliation must be approved by the appropriate squadron supervision. The intent is to enable mission priority decisions, coordinate schedule changes and make this information available to aircrews prior to them entering crew rest. The Chief of 22 OSS Scheduling is the decision making authority to deconflict competing de-icing requirements for all McConnell AFB aircraft. Coordination with 931 OG is needed if sorties tasked to their unit are affected.

6.2.8. Aircraft will be Hangered, if space is available and dependent on maintenance requirements, in the priority determined during the reconciliation process.

6.3. Day of Execution Actions. The Duty Scheduler, in conjunction with the De-icing Foxtrot, will oversee the de-icing process. The 22 OSS Duty Scheduler is on-call and will report as necessary to work scheduling conflicts with receiver units.

6.3.1. When the Duty Scheduler is notified by CP that ICECON Z (de-icing) is implemented, they will inform the Operations Officers of the active duty flying squadrons and the 18 ARS Assistant Operations Officer.

Chapter 7

SQUADRON SCHEDULING ACTIONS

7.1. General.

7.1.1. Squadron Scheduling is responsible for ensuring that each aircraft commander in their squadron has a current phone number and/or contact information in GDSS2. Squadrons will provide CP with a current copy of their recall roster on a monthly basis or more frequently if required.

7.1.2. Tasked squadrons will schedule certified De-icing Foxtrot in GDSS2, ensure they are not scheduled to fly during their assigned period, and ensure their GDSS2 contact information is correct.

Chapter 8

COMMAND POST (CP) ACTIONS

8.1. Day Prior Actions.

8.1.1. If OPLAN 801X missions have been tasked, the CP will provide a representative for the scheduling reconciliation.

8.2. Day of Execution Actions.

8.2.1. CP will pass all weather watches, warnings and observations indicating freezing precipitation conditions to the De-icing Foxtrot.

8.2.2. CP will notify the De-icing Foxtrot anytime ICECON Y is initiated.

8.2.3. Expect the De-icing Foxtrot to notify CP of ICECON Z (de-icing) implementation. When the De-icing Foxtrot calls, he/she will provide the following information:

8.2.3.1. Sorties to be de-iced

8.2.3.2. Tail number

8.2.3.3. Parking spot

8.2.3.4. Pit time

8.2.3.5. Takeoff time

8.2.3.6. If Hangered, whether the aircraft is fully Hangered or tail out

8.2.3.7. Sortie cancellations

8.2.4. CP will notify Airfield Ops, the Wing Duty Scheduler and MOC that ICECON Z (de-icing) has been implemented and pass the information listed above. Any changes to the above information will be passed to these POCs as soon as received.

8.2.5. For all sorties specified by the De-icing Foxtrot, CP will alert the aircraft commander at the de-icing LFA listed on the daily corrected flying schedule.

Chapter 9

DE-ICING FOXTROT ACTIONS

9.1. General. During the deicing season (as defined in **Paragraph 1.1.**), De-icing Foxtrot may work 12 hour shifts (AM & PM). If necessary, De-icing Foxtrot may work consecutive 12 hour shifts. Squadrons will assign the De-icing Foxtrot in GDSS. When either ICECON Y or ICECON Z has been implemented, the off-going De-icing Foxtrot will contact the oncoming De-icing Foxtrot to pass the latest aircraft status.

9.2. Day Prior Actions. During the de-icing season, the De-icing Foxtrot will attend the scheduling reconciliation meeting (when scheduled), check the daily corrected schedule (or a real time GDSS2 schedule) and note the first deicing LFA that is scheduled to occur on their shift.

9.3. Day of Execution Actions.

9.3.1. Alerting Procedures/Equipment Preparation

9.3.1.1. During the de-icing season with ICECON X in effect, the De-icing Foxtrot will check the relative humidity and temperature at McConnell AFB NLT 45 minutes prior to the first de-icing LFA on their shift. This information may be obtained from commercial sources or by calling 22 OSS/OSW (Weather Flight). If any one of the following conditions exist the De-icing Foxtrot will report for duty with sufficient time to inspect the aircraft at least 30 minutes prior to the first de-ice LFA during their shift:

9.3.1.1.1. The relative humidity is ≥ 80% and the temperature is < 35° F.

9.3.1.1.2. The De-icing Foxtrot suspects de-icing will be required.

9.3.1.1.3. ICECON Y or Z has been initiated.

9.3.1.2. Upon arrival, the De-icing Foxtrot will proceed to the CP to procure the most current copy of the daily corrected flying schedule and proceed to the flightline to meet with the Maintenance De-icing Super (call sign “Frosty 5”). De-icing Foxtrot will either pre-coordinate with the Frosty 5 to get picked up and dropped off or utilize Sq vans to drive on the flight line.

9.3.1.3. During the meeting with the Frosty 5, confirm the tail numbers assigned to the upcoming missions, the location of the aircraft, and the proposed taxi routes to the de-icing pits/runway. The De-icing Foxtrot should personally inspect each aircraft to determine if de-icing is required. He/she will then meet with the Frosty 5 to discuss de-icing requirements for the day. If ICECON Z (de-icing) is to be implemented, the De-icing Foxtrot will call the 22 OG/CC with their recommendation. Additionally, Foxtrot will provide the OG/CC with a road conditions update and a determination will be made if vehicle travel risk is acceptable.

9.3.1.3.1. Once ICECON Z (de-icing) implementation is approved, the De-icing Foxtrot will inform CP and pass the following information:

9.3.1.3.1.1. Sorties to be de-iced

9.3.1.3.1.2. Tail number

9.3.1.3.1.3. Parking spot

9.3.1.3.1.4. Pit time

9.3.1.3.1.5. Takeoff time

9.3.1.3.1.6. If Hangered, whether the aircraft is fully Hangered or tail out.

9.3.1.4. During ICECON Y, the De-icing Foxtrot will re-accomplish the aircraft inspection to validate that de-icing is or is not required NLT 30 minutes prior to crew show at the aircraft. The De-icing Foxtrot will pass all changes to status and/or sortie information above to the CP.

9.3.1.5. To facilitate working pit issues, the De-icing Foxtrot will use the de-icing cell phone to contact the De-icing Maintenance Supervisor, Frosty 5.

9.3.1.6. The De-icing Foxtrot will be familiar with the status of all aircraft scheduled to fly, as well as conditions on the runway, taxiway and mass parking area (e.g., the RCR as determined by Airfield Management). The De-icing Foxtrot, in coordination with the Frosty 5, will determine whether the aircraft will taxi north into the de-icing pits (**Attachment 2**) or south into the de-icing pits (**Attachment 3**). Once the direction is determined, the De-icing Foxtrot will contact Airfield Ops with proposed direction NLT 30 minutes prior to pit time. The De-icing Foxtrot will have CP relay this information to the crews on CP frequency prior to aircraft taxi.

9.3.1.6.1. NOTE: When wind velocity for the expected de-icing time period (as reported/forecast by 22 OSS Weather flight) exceeds 15 knots, the aircraft will be positioned nose into the wind. When wind velocity for the expected de-icing time period is at or below 15 knots (as reported/forecast by 22 OSS Weather flight), the aircraft will be positioned for most-direct taxi to the active runway as determined by the De-icing Foxtrot in coordination with the Frosty 5.

9.3.1.7. If an aircraft is scheduled to de-ice, but does not require de-icing or is unable to meet the scheduled pit time, the De-icing Foxtrot will coordinate with the Duty Scheduler to reassign pit times to maximize launch capability. If the De-icing Foxtrot and the Duty Scheduler intend to assign a crew an earlier pit time, he/she will verify the crew can make the new pit time. Inform the CP of any changes to crew alert times.

9.3.1.8. Unexpected Frost or Icing. If unexpected frost or icing conditions occur, the De-icing Foxtrot will coordinate real time scheduling between the 22/931 OSS Duty Schedulers, CP, and the Maintenance Pro Super to ensure sortie execution. The Duty Scheduler will forward recommendations to the OG/CC/CD, if the scheduled flying activity is greater than de-icing capability.

9.3.2. Aircrew Aircraft Preflight. The De-icing Foxtrot will coordinate with the Duty Scheduler, aircrews, and the Frosty 5 to control the flow of aircraft to the de-icing pits to ensure aircraft are de-iced according to mission priorities and takeoff times. De-confliction of taxi times/routes will be considered.

9.3.3. If a sortie cancels or delays, affecting the need for clearing snow, the De-icing Foxtrot will notify Airfield Ops and Snow Removal.

Chapter 10

AIRFIELD OPERATIONS ACTIONS

10.1. Day of Execution Actions.

10.1.1. Airfield Operations will advise 22 CES Snow Control of ICECON Z implementation (de-icing) with the following information (and updates):

10.1.1.1. Sorties to be de-iced

10.1.1.2. Tail number

10.1.1.3. Parking spot

10.1.1.4. Pit time

10.1.1.5. Takeoff time

10.1.1.6. If Hangered, whether the aircraft is fully Hangered or tail out

10.1.1.7. Sortie cancellations

10.1.2. Airfield Operations will pass the direction of the de-icing pit taxi routes to Snow Control after receiving the information from the De-icing Foxtrot.

Chapter 11

CIVIL ENGINEERING SQ (CES) ACTIONS

11.1. De-icing Planning Period.

11.1.1. Snow Removal. 22 CES will coordinate with airfield management and 22 AMXS to devise a snow removal plan, aimed at clearing taxi routes to ensure aircraft will have a cleared path when taxiing to the de-icing pits. This will include snow removal around hangars if aircraft are Hangered to improve response time.

11.1.2. NLT 1 September each year, 22 CES will begin operational checkout of all snow removal equipment to ensure readiness by 1 November annually.

11.1.3. 22 CES will ensure operability of de-icing pits NLT 13 October annually.

11.1.4. 22 CES/CEOIF will configure the valves at the de-icing pits to de-icing mode NLT 1 November annually. Valves should be kept in this configuration for the remainder of the de-icing season. NOTE: 22 CES should monitor weather conditions in October to determine if the valve should be configured to de-icing mode sooner than 1 November.

11.2. Day of Execution Actions.

11.2.1. Alerting Procedures/Equipment Preparation.

11.2.1.1. Facility priorities for clearing snow will be runways, taxiways and the aprons in front of Hangered aircraft IAW the base snow removal plan. 22 CES will coordinate with Base Operations during this process.

11.3. De-icing Postseason. 22 CES will evaluate weather conditions to determine when the valves at the de-icing pads can be reconfigured back to normal drainage mode, and accomplish this at the appropriate time.

Chapter 12

MAINTENANCE ACTIONS

12.1. De-icing Preseason.

12.1.1. 22 AMXS will perform operational checkout of all de-icing equipment to ensure readiness by 1 September annually.

12.1.2. 22 ARW augmentee needs will be identified by 22 AMXS supervision to the appropriate agency for support by 15 September annually.

12.2. De-icing Season.

12.2.1. Maintenance will notify 22 OSS Wing Scheduling by 0800L of any anticipated loss of de-icing or defrosting capabilities.

12.2.2. 22 AMXS will provide a De-icing Supervisor, Frosty 5. This individual will be an NCO/officer who will brief all personnel on sequence of events and safety. This person will have a vehicle with a radio and communicate with MOC. This person will work with the De-icing Foxtrot to prioritize and schedule aircraft through the pits for de-icing.

12.3. Day Prior Actions.

12.3.1. Maintenance production supervisors will check mission priorities when finalizing tail numbers and parking locations. **NOTE:** MXG/CC approval is required to tow an aircraft when RCR is less than 7.

12.3.2. When possible, aircraft assigned to the highest mission priorities will be Hangered when icing conditions are anticipated. The MXG/CC will decide when to hangar aircraft based on the recommendations of the AMXS Pro Super and MOC.

12.3.3. 22 MXS will shelter personnel maintenance stands (4 B4s, 4 B5s, and 2 B1s) in hangar 1106 and/or hangar 1107 when weather reports include the potential for freezing/icing condition.

12.4. Day of Execution Actions.

12.4.1. Alerting Procedures/Equipment Preparation.

12.4.1.1. MOC will notify 22 AMXS and 22 MXS supervision, POL, and the Maintenance Pro Super when receiving weather watches, warnings and observations.

12.4.1.2. The Pro Super will physically check scheduled aircraft (including Hangered aircraft) every day during the de-icing season, completing checks of all scheduled aircraft NLT 4+30 prior to the first pit time. If maintenance de-icing supervisor suspects or observes icing conditions, they will declare ICECON Y to CP and alert the De-icing Foxtrot, so the De-icing Foxtrot may recommend declaring ICECON Z (implementation of de-icing procedures), if required.

12.4.1.3. Implementation of De-icing Procedures. When the De-icing Foxtrot reports for duty, he/she will meet with the Maintenance Pro Super and De-icing Super on the flight line to discuss the icing potential for that day.

12.4.1.4. With coordination from the De-ice Super, MOC will notify the CE environmental office (22 CES/CEAN) 2+00 prior to pit time when de-icing operations will be performed.

12.4.1.5. MOC will coordinate with the maintenance de-icing team and Command Post prior to approving aircraft movement to de-icing pads.

12.4.1.6. For ICECON Z, 22 AMXS Supervision and 22 MXS Supervision will have the following equipment prepositioned at the appropriate de-icing pads NLT 0+30 prior to pit time:

12.4.1.6.1. De-icing trucks (2 for each pad plus 2 spare) [ready to de-ice/de-ice fluid appropriately heated]

12.4.1.6.2. Light carts, during hours of darkness (2 for each pad plus 1 spare to cover all the pads)

12.4.1.6.3. Fire bottles (1 per pad)

12.4.1.6.4. Power carts (2 primary and 1 spare)

12.4.1.6.5. Aircraft chocks (2 sets per pad)

12.4.1.6.6. Launch kit (1 per pad)

12.4.1.6.7. De-icing technical data (1 per pad)

12.4.1.6.8. One AGE tow vehicle

12.4.1.6.9. One –95 LASS

12.4.1.6.10. H-1 Heater (1 per pad)

12.4.1.6.11. Two sets of tire covers (1 per pad)

12.4.1.6.12. One maintenance toolbox

12.4.1.7. Maintenance will check the control panel prior to operation. The green light adjacent to “DEICING VALVES OPEN” should be illuminated. If not, contact 22 CES/CEOIF to check the valve configuration prior to operation. WARNING: If the red light next to the de-icing pad control panel flashes, that indicates that the deicing fluid collection tank is almost full. Personnel should immediately stop the de-icing procedures and contact 22 CES/CEOIF.

12.4.1.8. Based upon hangar availability and work requirements, maintenance will attempt to hangar all Alpha alert aircraft in a fully enclosed hangar. AMXS will pre-position a tow team with the aircraft if maintenance personnel are available.

12.4.2. Aircraft Preflight

12.4.2.1. The Pro Super will ensure that any frost or dry snow that can be removed by physical means or with defrosting equipment is removed from the aircraft prior to crew arrival unless the frost, snow, or ice requires de-icing for removal.

12.4.2.2. When using an alternate de-icing location, 22 AMXS supervision, the maintenance Pro Super or the De-ice Super will coordinate with MXG 1+00 prior to the "pit time" for de-icing on the MAPA to position vacuum equipment. Fluids collected

from the ramp area will be disposed of using the collection facility located by the primary de-icing pits.

12.4.2.3. De-icing Super will ensure that the de-icing team warms up and prepares the required number of de-icing trucks 1+00 prior to the first pit time of the day.

12.4.2.4. AMXS supervision or the maintenance Pro Super will notify transient alert (T/A) when a T/A driver is required to operate the follow-me truck for de-ice operations during hours of darkness during normal T/A operating hours. During other than normal T/A operating hours, 22 AMXS will provide a driver for the follow-me truck for de-ice during hours of darkness.

12.4.3. Engine Start and Taxi to De-icing Pit (or alternate location).

12.4.3.1. Aircraft requiring de-icing will taxi as directed by the 22 AMXS Pro Super to the de-icing pit (target time for taxi is 0+20 prior to pit time). If civil engineering does not show up by 1+30 prior to pit time, MOC will contact CE Snow Control immediately.

12.4.4. During De-icing.

12.4.4.1. AMXS will have a tow vehicle and tow bar available to move aircraft that are unable to restart engines and/or taxi clear of the de-icing pits. MXG/CC or his/her designated representative approval is required to tow aircraft when the runway condition reading (RCR) is less than 7.

12.4.4.2. If any aircraft or vehicle with hazardous cargo is parked on Echo Ramp, the De-icing Super will contact Airfield Ops to ensure the vehicle does not contain hazardous cargo which could prevent de-icing operations. NOTE: MAFBI 91-205 outlines level of hazardous material allowed to be parked near the de-icing pits.

12.4.4.3. MXS AGE will provide 1 driver and 1 augmentee for bobtails at de-icing pit during de-icing operations.

12.4.4.4. Aircraft positioning for aircraft taxiing South on Taxiway Alpha:

12.4.4.4.1. The De-ice Super will ensure that the first aircraft to arrive will be parked on de-icing pad C (the southernmost pad). NOTE: When wind velocity (as reported/forecast by 22 OSS Weather flight for the expected de-icing time period) exceeds 15 knots, the aircraft will be positioned nose into the wind. When wind velocity is at or below 15 knots (as reported/forecast by 22 OSS Weather flight for the expected de-icing time period), the aircraft will be positioned for convenient taxi to the active runway as determined by the De-icing Foxtrot in coordination with the Maintenance De-icing Pit Super.

12.4.4.4.2. When de-icing two aircraft concurrently, 22 AMXS Supervision and/or the De-icing Super will ensure de-icing pads C and D will be used.

12.4.4.5. Aircraft positioning for aircraft taxiing North on Taxiway Alpha:

12.4.4.5.1. The Maintenance De-icing Super will ensure that the first aircraft to arrive will be parked on de-ice pad C (the northern most pad). NOTE: When wind velocity (as reported/forecast by 22 OSS Weather flight for the expected de-icing time period) exceeds 15 knots, the aircraft will be positioned nose into the wind. When wind velocity is at or below 15 knots (as reported/forecast by 22 OSS Weather

flight for the expected de-icing time period), the aircraft will be positioned for convenient taxi to the active runway as determined by the De-icing Foxtrot in coordination with the Maintenance De-icing Pit Super.

12.4.4.5.2. AMXS Supervision and/or the Maintenance De-icing Super will ensure that when de-icing two aircraft concurrently, de-icing pads C and D will be used.

12.4.4.6. Aircraft positioning for aircraft using the alternate de-icing location.

12.4.4.6.1. If the de-icing facility is unusable or unable to accommodate the aircraft flow dictated by operational mission priorities, refer to **Chapter 3**. The decision to use the alternate method must be coordinated between the 22/931 OG/CC, 22/931 MXG/CC, 22 MSG/CC with final approval given by the 22/931 ARW/CC or CV. NOTE: Due to probable violation of KDHE environmental regulations the 22 ARW/CC approval is required for use of the alternate de-icing location.

12.4.4.7. Maintenance will connect external power to the aircraft at the de-icing pit (de-icing requires all engines and APUs to be off).

12.4.4.8. Maintenance ground crew will notify the aircraft commander prior to and upon completion of tail section de-icing.

12.4.4.9. When using an alternate de-icing location, and in the event of any release of de-icing fluid into trench drains, the Maintenance De-icing Super must contact the CP within 15 minutes of the event to provide any information on the cause for the release of de-icing fluid in trench drains. The Maintenance De-icing Super will collect all data on the event, and provide this data to both the De-icing Foxtrot and the CP to complete Operational Reporting (OPREP) requirements. Additionally, the Maintenance De-icing Super will immediately contact the base fire department and 22 CES/CEOIB for closure of the storm water gates.

12.4.5. When de-icing is complete.

12.4.5.1. After aircraft de-icing is complete, AMXS Supervision will ensure the pad diversion valves are left in the open position and all AGE equipment is removed.

12.4.5.2. AMXS Deice Super will maintain a log to track the dates and number of aircraft de-iced. This information will be submitted to 22 CES/CEAN (Environmental) by the 14th day of each month during the de-icing season (ICECON W). 22 CE POCs are as follows:

12.4.5.2.1. Customer Support (duty hours)

12.4.5.2.2. Snow Control (24 hrs during snow/ice events)

12.4.5.2.3. Fire Department (24 hrs)

12.4.5.3. With coordination from the Deice Super, MOC will notify 22 CE when de-icing procedures at the alternate location (MAPA) are terminated.

12.4.6. After Landing. The following procedures will be used during the de-icing season (ICECON W), if weather conditions dictate:

12.4.6.1. Debrief or maintenance will put the following discrepancy in all 781 series forms, “Verify flight control balance bays are free of snow, ice, and slush accumulation prior to flight, IAW 1C-114A-6WC-1.” This entry will be on a Red X symbol.

12.4.6.2. When aircraft are parked on the ramp during the de-icing season, flaps should be raised to the full-up position, horizontal stabilizer positioned 2½ units nose down position, windows closed, window covers, and engine covers and plugs installed. When weather conditions would cause snow, ice and slush accumulations, outside the de-icing season, the same 781A entry will be made at the time of preflight.

12.4.6.3. Local 781A pre-printed forms will be used while assigned personnel and aircraft are TDY under the above listed conditions.

12.4.6.4. At the time of the balance bay and inlet inspection, a qualified technician will verify the completion of the inspection, necessary removal of accumulation and sign off the 781A entry.

Chapter 13

AIRCREW ACTIONS

13.1. De-icing Planning Period. If a sortie scheduled to takeoff during ICECON X is not planned by the mission planning cell and the crew wants to mission plan/fly, they will get approval to mission plan/fly from their respective Operations Officer and ensure the adjusted LFA (for mission planning on the day of flight) is annotated on the schedule.

13.2. Day Prior Actions.

13.2.1. Aircraft commanders will check with 22 OSS/OSO to ascertain the following flying day's ICECON.

13.2.2. Aircraft commanders will also check the mission notes for their sortie in GDSS2 for "ICECON X procedures applicable" to determine if ICECON X procedures will apply to their specific sortie. NOTE: Dependent on a sortie's mission priority and/or other factors that may affect the accomplishment of a high-visibility mission, the Chief of 22 OSS Scheduling, in coordination with the De-icing Foxtrot, may elect to apply ICECON X to specific missions despite none of the determining factors in **Paragraphs 4.1.3.1 – 4.1.3.5** being met. Therefore it is the aircraft commander's responsibility to check GDSS2 to ascertain whether ICECON X procedures are applicable to their sortie.

13.2.3. Aircraft commanders will ensure they have current contact information for all crewmembers to be alerted.

13.2.4. If ICECON X or greater is expected for their sortie, aircraft commanders will:

13.2.4.1. Recheck their de-icing LFA, de-icing pit time and expected alert time on the most current flying schedule prior to entering crew rest the day prior to flight. This recheck is to identify the changes added to the daily corrected flying schedule. All aircrew de-icing LFA times will be IAW the McConnell De-icing Timing Chart.

13.2.4.2. Brief their crews on their de-icing LFA, pit time, expected alert time, and the forecast weather conditions. If ICECON X is in effect and the de-icing LFAs have not been finalized by 1400L the day prior to flight, crewmembers should enter crew rest at 1400L in preparation for possible de-icing procedures the next day. In any case, AC's will ensure their crew enters crew rest 12 hours prior to the LFA.

13.2.5. If ICECON W or lower is expected for their day of flight, aircrews will follow normal timing and procedures for operations when de-icing is not required.

13.3. Day of Execution Actions.

13.3.1. Alerting Procedures/Equipment Preparation for ICECON X or greater.

13.3.1.1. Implementation of LFAs. When aircraft commanders are alerted, they are responsible for notifying the rest of their crew.

13.3.1.1.1. If crews are called by CP at their de-icing LFA, they should follow de-icing timing IAW the McConnell De-icing Timing Chart.

13.3.1.1.2. If they are on a TACC-tasked mission, and are not called by CP at their de-icing LFA, but are called at their expected alert time, they should follow normal

mission timing to arrive at the aircraft IAW local directives. If a crew is on a TACC-tasked mission and they have not been called by CP by their expected alert time, they should remain in crew rest and await further words.

13.3.1.1.3. If a crew is on a local training mission and they are not called by CP at their de-icing LFA, they should follow standard mission alert procedures and timing to arrive at the aircraft IAW local directives.

13.3.1.2. Aircraft Commander's De-icing Inspection. The aircraft commander is the final authority as to whether or not the aircraft will be de-iced. If the aircraft commander determines the aircraft does not need to be de-iced, they will inform the De-icing Foxtrot, Frosty 5 and the CP, so the pit time can be reassigned to maximize launch capability. Aircraft commanders must use caution when making this decision, as it will be difficult to work aircraft back into the de-icing flow if the pit time has been reassigned.

13.3.1.3. If an aircraft with a scheduled de-icing pit time cannot make the scheduled pit time, the aircraft commander will inform the Duty Scheduler and De-icing Foxtrot ASAP.

13.3.1.4. Aircrews will contact the De-icing Foxtrot on the de-icing cell phone prior to engine start, prior to taxi and on any other issues related to de-icing operations. If crews are unable to contact the De-icing Foxtrot on the de-icing cell phone, they will contact Shocker Control on 323.8 or call Command Post to get a phone patch.

13.3.2. Aircraft Preflight.

13.3.2.1. Aircraft Not Hangered. Crews will perform a normal Interior Inspection. Be aware that depending on the icing conditions encountered, moving the flaps and flight controls may have to be delayed until after de-icing.

13.3.2.2. Hangered Aircraft. Some items of the interior inspection may be impossible to check while in the hangar (e.g., nav radios, comm radios, GPS reception). Test these items as soon as practical after being towed out of the hangar to allow maintenance the maximum amount of time to troubleshoot if necessary. APUs will not be started until the aircraft is completely clear of the hangar.

13.3.2.2.1. Aircraft Fully Hangered. If freezing precipitation is not encountered during tow-out of the hangar, de-icing of the aircraft is not required. If de-icing procedures have been implemented, aircraft commanders will notify the CP and De-icing Foxtrot of their intentions and proposed mission timing changes prior to making adjustments.

13.3.2.2.2. Aircraft Tow from Hangar. Hangered aircraft will be towed from the hangar and parked on the centerline of the main aircraft parking area between rows Alpha and Bravo or on parking spots as designated by CP. The aircraft will be aligned so the nose points in the direction the 22 CE's snow removal section has cleared for taxi to the de-icing pits. The Tow Supervisor is responsible for aircraft safety (e.g., wing tip clearance, ground equipment, etc.) throughout the tow process. Aircrews will guard brakes during the tow out of the hangar.

13.3.3. Engine Start and Taxi to De-icing Pit (or alternate location) during ICECON Z.

13.3.3.1. Crews will accomplish required checklists prior to taxi. Normally, aircraft will be towed to the de-icing pits if tower/ground control is not operational.

13.3.3.2. Crews will taxi to the de-icing pits at speeds commensurate with actual ramp/taxiway surface conditions. OG/CC approval is required to taxi if the RCR is less than 7. MXG/CC approval is required to tow an aircraft if the RCR is less than 7.

13.3.3.3. Aircraft commanders should expect to taxi out of parking via Taxiway Alpha to the de-icing pits located between Taxiways Charlie and Delta. Use of Taxiways Charlie and Delta (and the portion of the east runway between them) is required to allow aircraft to face north in the de-ice pits if runway 19R/L is in use, aircrews will follow ground/tower controller instructions closely.

13.3.3.3.1. **NOTE 1** : When wind velocity (as reported/forecast by 22 OSS Weather flight for the expected de-icing time period) exceeds 15 knots, the aircraft will be positioned nose into the wind. When wind velocity is at or below 15 knots (as reported/forecast by 22 OSS Weather flight for the expected de-icing time period), the aircraft will be positioned for convenient taxi to the active runway as determined by the De-icing Foxtrot in coordination with the Frosty 5.

13.3.3.3.2. **NOTE 2** : Taxiway Delta is daytime/VFR only (no lights). See MAFBI 13-201, **Paragraph 1.4.2.**

13.3.4. During De-icing (ICECON Z).

13.3.4.1. KC-135.

13.3.4.1.1. Crews will follow T.O. and AFI guidance for de-icing.

13.3.4.1.2. Expect maintenance to connect external power (de-icing requires all engines and APUs to be off).

13.3.4.1.3. Aircraft Commanders will check the exterior of the aircraft after de-icing is complete to ensure the aircraft is ready for takeoff.

13.3.4.2. KC-46

13.3.4.2.1. Crews will follow T.O. and AFI guidance for de-icing

13.3.5. When De-icing is Complete.

13.3.5.1. Crews will depart the de-icing pit once de-icing is complete. Because only de-icing fluid will be used, holdover time is negligible. If aircraft commanders complete de-icing and reach the runway early, they will not delay their takeoff (in order to wait for a scheduled takeoff time in the future) while the aircraft is accumulating icing. If frozen precipitation is not actively occurring, crews may coordinate to delay outside of the de-ice pit until their scheduled takeoff time.

13.3.5.2. Final Check. The Aircraft Commander is the final authority to determine the condition of the aircraft after de-icing is complete. If any delay is encountered (between de-icing completion and takeoff), and the Aircraft Commander suspects that frozen precipitation has accumulated on the aircraft, he/she will physically recheck the aircraft in accordance with T.O. and AFI procedures.

David M. Lenderman, Colonel
Commander

Attachment 1

GLOSSARY OF REFERENCES AND ABBREVIATIONS

References

MAFBI 10-101, Alert Planning Factors and Procedures

MAFBI 15-101, Weather

MAFBI 21-106, Severe Weather Procedures

MAFBI 91-205, Parking of Explosives Loaded Aircraft/Trucks

MAFB OPERATIONS PLAN 718-02, Snow and Ice Control

TO 1C-135(K)R-2-2GA-1, Ground Handling, Servicing and Airframe, USAF Aircraft KC-135R/T

TO 1C-135(K)R-2-2JG-2, Ground Handling, Servicing and Airframe, USAF Aircraft KC-135R/T

TO 42C-1-2, Anti-Icing, Deicing and Defrosting of Parked Aircraft

Abbreviations and Acronyms

ADO—Assistant Director of Operations

AGE—Aerospace Ground Equipment

AMXS—Aircraft Maintenance Squadron

CES—Civil Engineering Squadron

CP—Command Post

DO—Director of Operations

Duty Scheduler—The OSS on duty scheduler (different from the executor)

Frosty 5—Call sign for Maintenance De-icing Super

ICECON—Aircraft De-icing Condition

KDHE—Kansas Department of Health and Environment

LFA—Legal for Alert

LMR—Land Mobile Radio

MXG—Maintenance Group

MAPA—Mass Aircraft Parking Area

MOC—Maintenance Operations Center

MXS—Maintenance Squadron

OG—Operations Group

OSS—Operations Support Squadron

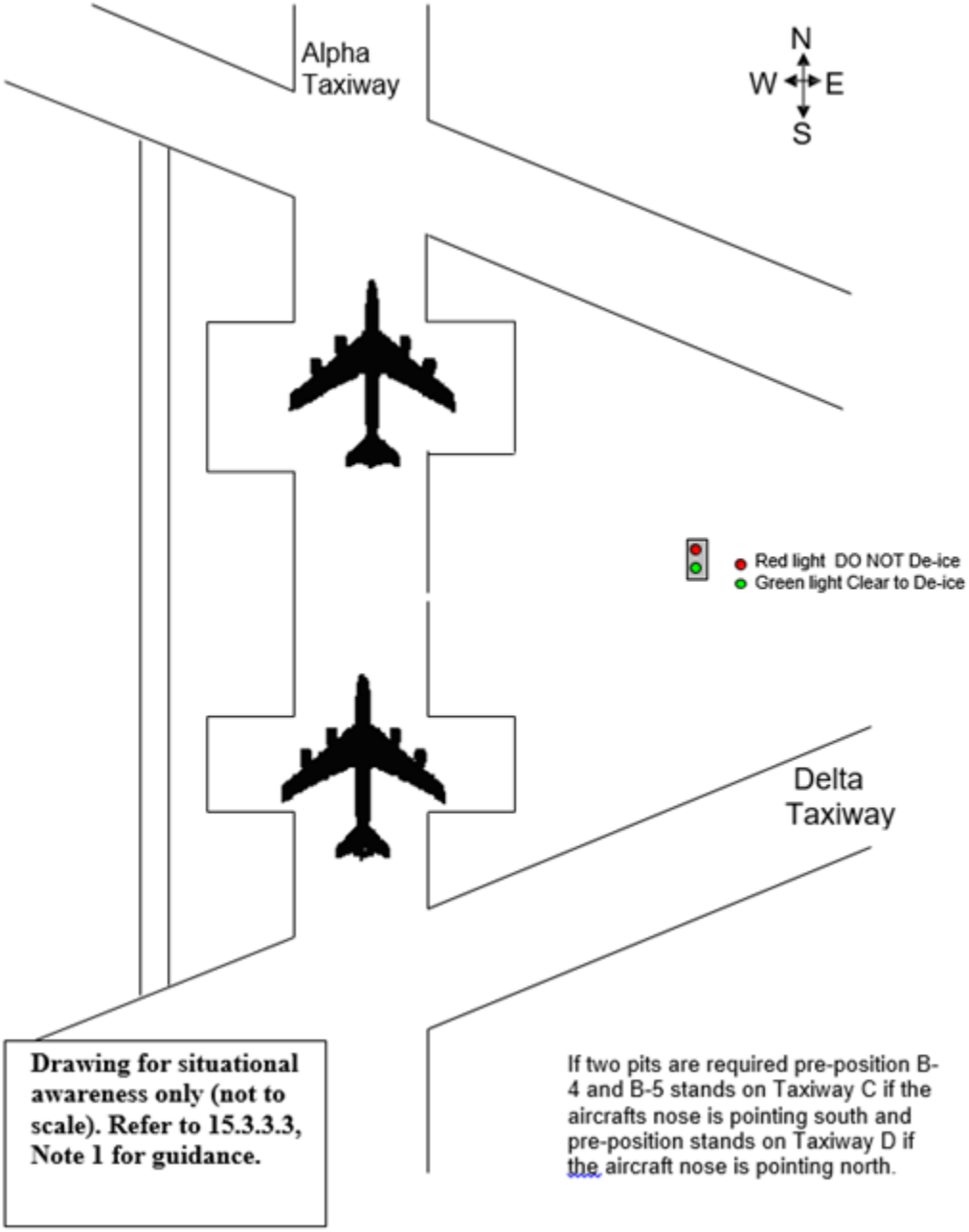
RCR—Runway Condition Reading

TACC—618 Tanker Airlift Control Center

Attachment 2

DE-ICING PAD MAP (TAXI NORTH THROUGH PITS)

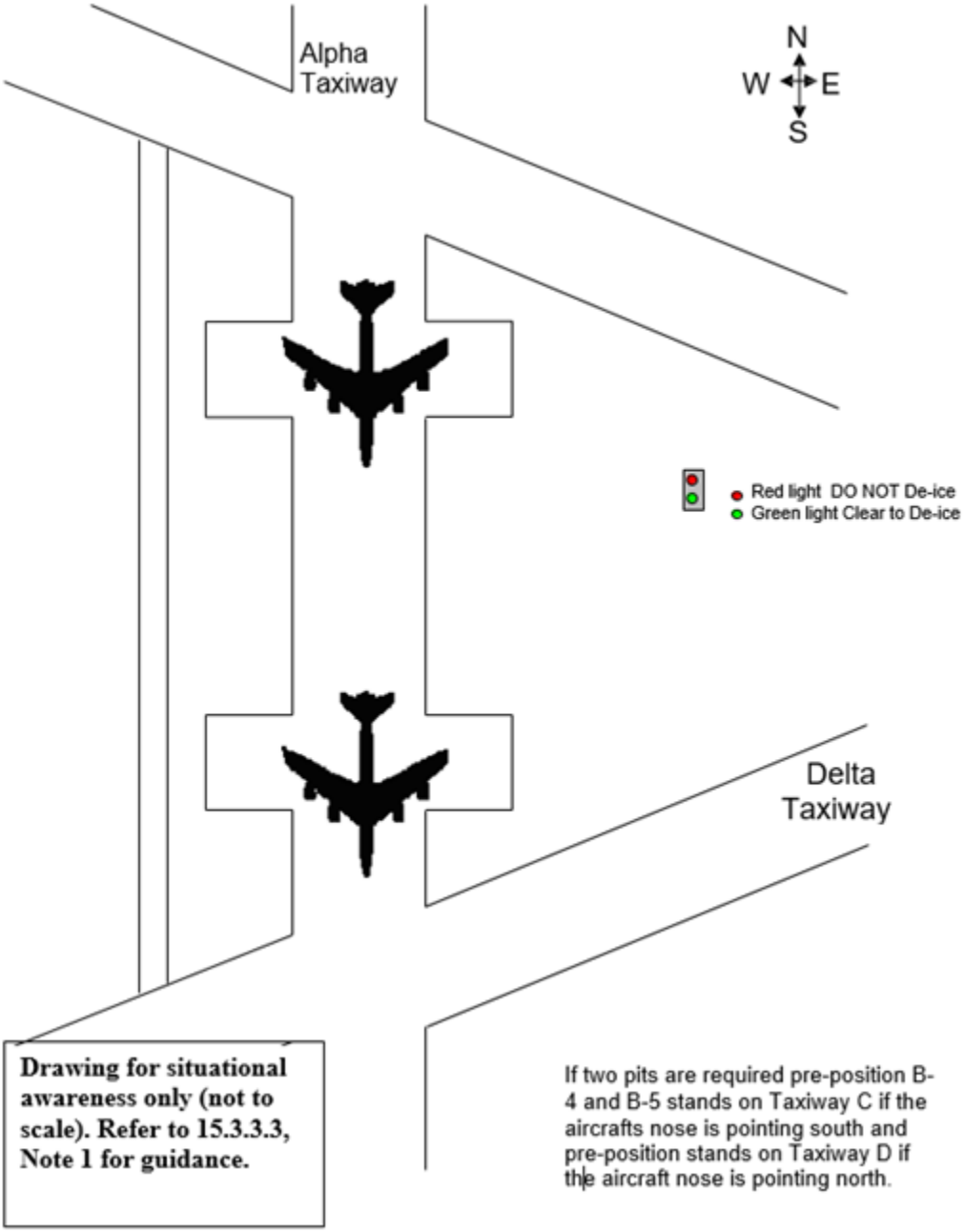
Figure A2.1. De-Icing Pad Map (Taxi North Through Pits)



Attachment 3

DE-ICING PAD MAP (TAXI SOUTH THROUGH PITS)

Figure A3.1. De-Icing Pad Map (Taxi South Through Pits)



Attachment 4

HANGERED LAUNCH PROCEDURES: WHEN NOTIFIED BY OSS SCHEDULING THAT AIRCRAFT IS TAIL OUT OR FULLY HANGERED, IMPLEMENT THIS CHECKLIST.

A4.1. As soon as possible upon showing to squadron, aircraft commander will contact the De-icing Foxtrot through CP to ascertain if their aircraft requires de-icing. Aircraft commanders are the final authority regarding the decision to de-ice their aircraft.

A4.2. Aircrew will plan to show to fully hangered aircraft IAW **Attachment 7**. If de-icing is required (tail out), crews will show IAW the McConnell De-icing Timing Chart (See **Attachment 6**). The aircrew will call CP when leaving the squadron for the aircraft. The CP will notify the MOC who, in turn, will notify the Maintenance Pro Super. The Pro Super will direct the tow team to meet the aircrew at the hangar.

A4.3. Aircrew will complete as much of the -1 preflight possible while in the hangar. Radios, GPS, Navaids, etc., will need to be completed once towed out.

A4.4. IAW current 22/931 OG/CC and 22/931 MXG/CC policy, Aircraft Commanders will guard the brakes during pushback out of the hangar. Consult applicable T.O.s for guidance on towing procedures.

A4.5. Aircraft will be towed into the MAPA. If an alternate de-icing location is required, refer to **Chapter 3.**

Attachment 5

22 ARW DE-ICING SEQUENCE OF EVENTS

Figure A5.1. 22 ARW De-Icing Sequence of Events, Part 1

NOTE: This table is provided as a guide. Text in **Chapter**s takes precedence over text in this table.				
DEICING PRESEASON		22 OG/OGV	Coordinate de-icing exercises with various agencies	1.6
		22 CES	Publish snow removal plan	11.1.1
		22 AMXS	Checkout deice equipment; ensure readiness NLT 1 Sep	12.1.1
		22 CES	Begin operational checkout of snow removal equipment NLT 1 Sept	11.1.2
		22 CES	Ensure operability of de-icing pits NLT 13 Oct	11.1.3
		22 CES/CEOIF	Configure valves at de-icing pits NLT 1 Nov	11.1.4
		CP	Initiate ICECON W at the start of de-icing season	4.1.2
		MXG	Identify augmentee needs, if required	12.1.2
DAY PRIOR ACTIONS	ICECON X-RAY	AMXS	Provide de-icing supervisor (Frosty 5)	12.2.2
		SQ Scheduling	Ensure AC phone number is in GDSS2 and correct	7.1.1
		Aircraft Commander	Ensure they have phone numbers for their crewmembers	13.2.3
		Aircraft Commanders	Brief crews on expected LFA's, pit times and forecast weather conditions	13.3.1.1
		SQ Scheduling	Schedule De-icing Foxtrot in GDSS2	9.1
		22 OSS/OSOS	Annotate sortie priority, LFA & pit times for flying schedule	6.2.3
		22 OSS/OSOS	Annotate non-deicing expected alert time (for TACC missions) on flying schedule	6.2.5
		22 OSS/OSOS	Daily Schedule Reconciliation (as required) with various agencies	6.2.6
		AMXS	Raise concerns for transient aircraft de-icing potential	5.2
		22 OSS/OSOS	Annotate Hangered jets	6.2.8
		De-icing Foxtrot	Note the first de-icing LFA that will occur on their shift	9.2
		22 AMXS	Notify 22 OSS/OSOS by 0800L of any anticipated loss of de-icing capability	12.2.1
		22 AMXS	Include balance bay inspection write-up in aircraft forms, as appropriate	12.4.6.1
		CP	Track ICECON status throughout de-icing season	8.2.5
		22 AMXS	Send de-icing information to 22 CES/CEAN by 14th day of month	12.4.5.2
		TA/ Transient Aircraft Commander	Coordinate de-icing requirements with CP	5.3
		Pro Super	Physically check scheduled aircraft (including Hangered aircraft) every day during the de-icing season, completing checks of all scheduled aircraft NLT 4+30 prior to the first pit time	12.4.1.2
		De-icing Foxtrot	Determine relative humidity and temperature at McConnell NLT 45 min prior to first de-icing LFA on their shift	9.3.1.1
		De-icing Foxtrot	If relative humidity is greater than or equal to 80% and temperature <35F, report for duty and inspect aircraft NLT 30 min prior to first de-icing LFA on their shift	9.3.1.1
		De-icing Foxtrot	Initiate ICECON X when weather shop issues icing forecast	4.1.3
		22 MXS	Shelter personnel maintenance stands in hangar 1106 and/or hangar 1107	12.3.3
DAY OF EXECUTION	ICECON X-RAY	CP	Pass weather watches, warnings & observations that indicate freezing precipitation to the De-icing Foxtrot	8.2.1
		MOC	Notify 22 AMXS and 22 MXS supervision, POL, and the Pro Super when receiving weather watches, warnings and observations	12.4.1.1
		Pro Super	Remove any frost or dry snow by physical means or with defrosting equipment prior to crew arrival if able	12.4.2.1
		TA	Brief transient crews on procedures	5.1

Figure A5.2. 22 ARW De-Icing Sequence of Events, Part 2

NOTE: This table is provided as a guide. Text in **Chapter**s takes precedence over text in this table.				
	ICECON YANKEE	De-icing Foxtrot, Pro Super, 22 OSS/OSW or CP	Initiate ICECON Y when frozen precipitation is occurring, RH >80% & Temp <35 F, or flyable aircraft still have ice on them	4.1.4
		De-icing Foxtrot	Pick up vehicle at CP	9.3.1.2
		De-icing Foxtrot	Obtain the most current copy of the daily corrected flying schedule	9.3.1.2
		De-icing Foxtrot	Confirm tails w/ Pro Super	9.3.1.3

DAY OF EXECUTION		De-icing Foxtrot	Inspect tail numbers 0+30 prior to de-icing LFA	9.3.1.1
		De-icing Foxtrot	Inspect tail numbers 0+30 prior to crew show	9.3.1.4
		De-icing Foxtrot	Inspect aircraft not in hangars once during shift	4.1.4
		De-icing Foxtrot	Brief oncoming De-icing Foxtrot at the end of each shift	4.1.4
	ICECON ZULU	De-icing Foxtrot	Recommend deicing to OG/CC, if required	9.3.1.3
		De-icing Foxtrot	Inform CP of de-icing implementation; pass the following info: sorties to be de-iced, tail number, parking spot, pit time, takeoff time, hangar status	8.2.2, 9.3.1.3
		CP	Notify Airfield Ops, Duty Scheduler & MOC that de-icing has been implemented	8.2.3
		Airfield Ops	Notify Snow Removal that de-icing has been implemented	10.1
		Duty Scheduler	Notify Sq/DO's of de-icing implementation	6.3.1
		CP	Alert Aircraft Commanders at de-icing LFA	8.2.4
		Aircraft Commander	Alert crewmembers	13.3.1.1
		TA	Inform AMXS of transient aircraft that need de-icing	5.2
		TA	De-ice transient aircraft	5.5
		AMXS	Warm up de-icing trucks 1+00 prior to first pit time	12.4.2.3
		MOC	Notify 22 CES/CEAN 2+00 prior to pit time	12.4.1.4
		AMXS	For the alternate de-icing location, position two T-750 Ramp Rangers on MAPA 1+00 prior to "pit time"	12.4.2.2
		AMXS	Notify TA when a "follow me" driver is required	12.4.2.4
		MOC	Coordinate with maintenance de-icing team prior to approving aircraft movement to de-icing pads	12.4.1.5
		De-icing Foxtrot	Determine forecast winds during de-icing	9.3.1.6
		De-icing Foxtrot	Consult with Frosty 5 regarding direction of deicing pits	9.3.1.6
		De-icing Foxtrot	Inform Airfield Ops of de-icing pit direction NLT 0+30 prior to pit time	9.3.1.6
		Airfield Ops	Passes info on direction of pits to Snow Removal	10.1.2
		De-icing Foxtrot	Inform aircrew on affected sorties of de-icing pit direction NLT 0+30 prior to pit time	9.3.1.6
		MXS	Preposition equipment at appropriate de-icing pads NLT 0+30 prior to pit time	12.4.1.6
		Aircrew	Taxi aircraft to pits 0+20 prior to pit time	A6
		AMXS	Connect external power to aircraft	12.4.4.7
		Aircrew	Park aircraft in de-icing pit; shutdown engines and APU	13.3.4.1
		AMXS	Notify aircrew at beginning and end of tail section de-icing	12.4.4.8
		AMXS	Inspect balance bays after de-icing; sign off 781A when inspection is complete	12.4.6.4
		Aircraft Commander	Inspect aircraft after de-icing, if appropriate	13.3.5.1
		AMXS	After de-icing aircraft, remove AGE equipment	12.4.5.1
		Frosty 5	If using alternate de-icing location and fluid is released into trench drains, contact CP within 15 min to provide information for OPREP	12.4.4.9
		MOC	Notify 22 CE when de-icing procedures at the alternate location are terminated	12.4.5.3
		De-icing Foxtrot	Inform Airfield Ops and Snow Removal if sortie cancels or delays	9.4
POSTSEASON		22 CES	Reconfigure valves to deicing pads	11.3

Attachment 6

DE-ICING TIMING CHART

Figure A6.1. De-Icing Timing Chart

Note: De-icing LFAs will be based the following table and are always prior to de-ice pit time (except completely hangered acft).					
Event	Single Sortie	Formation Sortie	Single Sortie (Hangered Tail out)	Formation Sortie (Hangered Tail out)	Mission Plan/Fly
Legal For Alert (LFA)	(3+30)	(3+45)	(3+45)	(4+00)	(4+30)
Crew Show (NLT)	(2+30)	(2+45)	(2+45)	(3+00)	(3+30)
Bus Time	(1+30)	(1+30)	(1+45)	(1+45)	(1+45)
At Aircraft	(1+15)	(1+15)	(1+30)	(1+30)	(1+30)
Tow (if Required)			(0+45)	(0+45)	(0+45)
Engine Start	(0+30)	(0+30)	(0+30)	(0+30)	(0+30)
Taxi to Pits	(0+20)	(0+20)	(0+20)	(0+20)	(0+20)
Pit Time	0+00	0+00	0+00	0+00	0+00
De-ice Complete	1+30	1+30	1+30	1+30	1+30
Engine Start	1+35	1+35	1+35	1+35	1+35
Taxi	1+40	1+40	1+40	1+40	1+40
Takeoff	1+50	1+50	1+50	1+50	1+50

Attachment 7

COMPLETELY HANGARED (DE-ICING N/A) TIMING CHART

Figure A7.1. Completely Hangared (De-Icing N/A) Timing Chart

NOTE: These times are PRIOR to TAKEOFF		
Event	Single Sortie	Formation Sortie
Legal For Alert (LFA)	4+15	4+45
Crew Show (NLT)	3+15	3+45
Bus Time	2+00	2+00
At Aircraft	1+45	1+45
Tow	0+45	0+45
Engine Start	0+30	0+30
Taxi	0+10	0+10
Takeoff	0+00	0+00