



TENANT DIRECTIVE

Tenant Directive No.: BWI 215.1
Distribution List: D
Effective Date: September 27, 2023

Original Date: November 2, 2022
Revised: September 27, 2023

Approved by: *Gregory W. Sobel*
Director, Office of Airport Operations

Date: 9/26/23

AIRCRAFT DEICING PROCEDURES AT BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL (BWI MARSHALL) AIRPORT

Purpose

The purpose of this Directive is to:

- A. Establish procedures and restrictions for defrosting/deicing of aircraft.
- B. Establish procedures for reporting the use of aircraft deicing fluid.

Reference(s)

- A. Code of Federal Regulations 14 CFR Part 121
- B. Code of Federal Regulations 14 CFR Part 135
- C. Federal Aviation Administration Advisory Circular 20-117, Hazards Following Ground Deicing and Ground Operations in Conditions Conducive to Aircraft Icing
- D. Federal Aviation Administration Advisory Circular 120-60B, Ground Deicing and Anti-Icing Program
- E. Federal Aviation Administration Advisory Circular 135-16, Ground Deicing and Anti-Icing Training and Checking
- F. Federal Aviation Administration Advisory Circular 150/5300-14C, Design of Aircraft Deicing Facilities
- G. Baltimore/Washington International Thurgood Marshall Airport National Pollutant Discharge Elimination System Permit 93-DP-2546

Scope

This Tenant Directive is applicable to all air carriers and ground support operators responsible for the deicing of aircraft at BWI Marshall Airport.

This Tenant Directive supersedes Tenant Directive 215.1, dated November 2, 2022.

 Denotes changes

Definitions

See page 2

Responsible Party:

Director, Office of Airport Operations

DIRECTIVE

I. Directive Statement

- A. This Directive establishes procedures and restrictions for the defrosting/deicing of aircraft at BWI Marshall Airport.
- B. This Directive specifies where aircraft deicing can be accomplished at BWI Marshall Airport in order to maximize the recovery of deicing fluids.
- C. This Directive establishes procedures for reporting the use of aircraft deicing fluid at BWI Marshall Airport in order to comply with condition I.H.2 of the Airport's National Pollutant Discharge Elimination System (NPDES) Permit.

II. Definitions

For the purposes of this Directive, the following words have the following meanings:

- A. **Air Carriers** mean a cargo, commercial, corporate, commuter, or general aviation aircraft.
- B. **Aircraft Defrosting** means the removal of the accumulation of clear ice/frost on the critical components of the aircraft including, but not limited to, the windshield, control surfaces, and inlet ducts, such that Federal Aviation Administration (FAA) regulations require defrosting of those components before the aircraft may takeoff.
- C. **Anti-icing** means the precautionary procedure of applying Type IV glycol that provides protection against the formation of frost or ice and accumulation of snow on treated surfaces of the aircraft for a limited period of time.
- D. **Declared Aircraft Deicing Event** means the determination that weather conditions warrant the implementation of the air carriers' Ground Deicing/Anti-icing Programs and the subsequent action by the FAA to ensure that air traffic flow controls are put in place.
- E. **Deicing Event** means the application of deicing chemicals onto aircraft (excluding aircraft defrosting) consistent with the air carriers' Ground Deicing/Anti-Icing Program during precipitation-related events.

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- F. **Ground Deicing/Anti-Icing Program** means an FAA approved Aircraft Ground Deicing and Anti-Icing Program that FAR Part 121 and FAR Part 135 certificate holders (air carriers) must comply with when conditions at an airport are such that frost, ice, or snow may reasonably be expected to adhere to aircraft.
- G. **Holdover Time** means the estimated time deicing/anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the critical surfaces of an aircraft. Holdover time begins when the final application of deicing/anti-icing fluid is applied to the aircraft and expires when the deicing/anti-icing fluid loses its effectiveness.
- H. **Primary Deicing** means the removal of frost, ice, or snow accumulation from aircraft wings, control surfaces, propellers, engine inlets, and other critical surfaces of the aircraft when the air carrier determines that removal is necessary and Aircraft Ground Deicing/Anti-icing Program procedures must be put into effect.
- I. **Secondary Deicing** means the removal of additional frost, snow, or ice that has accumulated on critical aircraft operational or control surfaces while taxiing for departure after having been Primary Deiced, or if Primary Deicing holdover times have been exceeded, as determined by the aircraft pilot in command.
- J. **Winter Weather Season** means, for operational purposes, the time period from November 1 to April 15 of each year is considered the Official Winter Weather Season for BWI Marshall Airport.

III. Procedures

A. GENERAL

1. The following aircraft deicing procedures will be used at BWI Marshall Airport. These procedures have been coordinated with the FAA Air Traffic Control Tower (ATCT), the air carriers, and Fixed Base Operators (FBOs).
2. Air carriers and FBOs must call the Airport Operations Center before commencing any Primary or Secondary Deicing, anti-icing, or defrosting operations during non-declared aircraft deicing events. The Airport Operations Center shall be advised of the type of deicing operations to be performed, where they will take place, when they are to begin, and are expected to end. In order to divert flow and initiate aircraft deicing fluid collection operations, it is required that a notification be provided at least 30-minutes before deicing operations are to be initiated. The Airport Operations Center shall notify Maryland Environmental Service and advise them of the information from the air carriers and FBOs.
3. The Airport Operations Center is responsible for declaring and canceling a Deicing Event. FAA ATCT, Menzies Aviation (Menzies), AeroMag, and Southwest Airlines will be notified when an event is declared and when an event is canceled.

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4. The Airport Operations Center shall notify air carriers and FBOs by electronic means and/or GREEN phone network that a Deicing Event has been declared. Menzies will have responsibility for maintaining radio communications with the FAA ATCT for deicing operations at the Runway 28 Deicing Pad. Southwest Airlines (SWA) will have responsibility for maintaining radio communications for deicing operations at the Runway 15R Deicing Pad and Concourse A Alternate Deicing Area. The call sign for Menzies is **FROSTY ONE**. The call sign for SWA is **ICEMAN**. The call sign for AeroMag is **AEROMAG**. Both Menzies and SWA will send a representative to the FAA Tower to coordinate deicing operations for the respective deicing pads/areas. Once an Aircraft Deicing Event is declared, "Gate Hold" procedures will be implemented by the FAA ATCT to control the flow of aircraft to the deicing pads on a first-come, first-serve basis. It is incumbent upon air carriers who utilize deicing pads to ensure deicing crews and equipment are in place at the pad and ready to begin deicing operations before any aircraft enter the deicing pad. Aircraft will not be permitted to sit/wait on a deicing pad waiting for crews/equipment to arrive.
5. Flight crews shall advise the FAA ATCT on Ground Control frequency and their respective air carrier/flight support operations staff as soon as possible when it is learned that secondary deicing/inspection is required for their aircraft. Aircraft requiring secondary deicing/inspection shall not enter a deicing pad until their deicing agent is present at the pad and equipped to accommodate the secondary deicing/inspection. This is to ensure that aircraft do not occupy deicing lanes for extended periods of time waiting for deicing crews to respond and prevent other aircraft from utilizing the deicing pad.
6. All air carriers and ground handlers that need to Primary Deice or Secondary Deice an aircraft in other than their designated locations shall obtain approval from the Airport Operations Center prior to beginning the operation. Only the Airport Operations Center may approve an acceptable alternate location.
7. Aircraft waiting for deicing at one of the deicing pads will hold at the gate or other approved ramp location to ensure all taxiways remain clear.
8. All personnel and equipment operating at deicing pads will remain clear of adjacent taxiways at all times.

B. DEICING PAD LOCATIONS – Runway 28 Pad, Runway 15R Pad, Runway 15L-33R Pad and Concourse A Alternate Deicing Area

Runway 28 Deicing Pad

1. There are seven deicing positions available at the Runway 28 Deicing Pad (See Attachment 1, Figure 1). Aircraft will queue into this area via Taxiway C and shall not block the Taxiway. There are six deicing lanes, numbered 1, 2, 3, 4, 5, and 6 from west to east. Lane 1 can accommodate two aircraft nose-to-tail, MD-11 or smaller size aircraft. Lane 2 can accommodate two aircraft nose-to-tail, B757-200 aircraft with winglets or smaller. Lane 3 will be used only for B747-400 size

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aircraft or smaller and when in use, Lanes 2 and 4 are not available. Lanes 4, 5, and 6 can accommodate B757-300 size aircraft with winglets or smaller. Wingtip clearances are as follows: when an MD-11 aircraft utilizes Lane 1, the wingtip clearance to a B757-200 winglet aircraft utilizing Lane 2 is reduced to 13 feet while passing. When a B757-200/300 winglet aircraft utilizes Lane 1, the clearance to a B757-200 winglet aircraft utilizing Lane 2 is 30.9 feet. When B757-200/300 winglet aircraft are utilizing Lanes 4, 5, and 6, the wingtip clearance between these lanes is reduced to 15.3 feet. The Runway 28 pad is available on a first-come, first-serve basis. Menzies has responsibility for maintaining radio communications with the FAA ATCT for this pad and serves as coordinator of activities for the Runway 28 Pad. Vehicle access to the Runway 28 Deicing Pad can only be achieved by entering the FAA Controlled Movement Area. Air carriers/FBOs are responsible for providing radio-equipped vehicles and trained personnel to access the Runway 28 Deicing Pad.

Air carriers who operate on Concourse C, Concourse D, Concourse E, and the North Air Cargo Ramp are assigned to utilize the Runway 28 Deicing Pad with exception of Southwest Airlines who is assigned to utilize the Runway 15R Deicing Pad.

2. Runway 15R Deicing Pad

There are four deicing positions available on the Runway 15R Deicing Pad (See Attachment 1, Figure 2). Aircraft queue into this area via Taxiway T and/or Taxiway P. There are four deicing lanes numbered 1, 2, 3, and 4 from north to south. Lane 4 can accommodate B747-400 size aircraft and smaller. Lane 3 and Lane 1 can accommodate B767-300 size aircraft and smaller. Lane 2 can accommodate B767-200 size aircraft and smaller. Southwest Airlines has responsibility for maintaining radio communications with the FAA ATCT for this pad and serves as coordinator of activities for the Runway 15R Deicing Pad and the Concourse A Alternate Deicing Area. Air carriers and/or ground handlers that want to use the Runway 15R Deicing Pad must receive prior approval from the Airport Operations Center for each deicing event. The Runway 15R Deicing Pad is available on a first-come, first-serve basis.

Air carriers who operate on Concourse A, Concourse B, and Concourse C are assigned to utilize the Runway 15R Deicing Pad with exception of Contour and American Airlines who are assigned to the Runway 28 Deicing Pad.

3. Runway 15L-33R Deicing Pad

Commuter aircraft and General Aviation aircraft will be deiced on the Runway 15L-33R aircraft deicing pad located adjacent to the General Aviation apron (See Attachment 1, Figure 3). There are two aircraft deicing positions numbered 1 and 2 from north to south. Both deicing positions can accommodate Gulfstream-V size aircraft and smaller. These positions will be utilized on a first-come,

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first-serve basis. Commuter aircraft not utilizing the primary deicing pad must comply with the gate restrictions in Section IV.C.

4. **Concourse A Alternate Deicing Area**

There are three aircraft deicing positions located at the Concourse A Alternate Deicing Area, which is located off the north end of Concourse A (See Attachment 1, Figure 4). Aircraft queue into this area via Taxiway T. The Concourse A Alternate Deicing Area is restricted to B737-800 size aircraft with winglets or smaller. Air carriers and/or ground handlers that want to use this area must receive prior approval from the Airport Operations Center.

C. **GATE RESTRICTIONS - PRIMARY AIRCRAFT DEICING**

All aircraft that receive deicing at the gate shall be completely deiced at the gate prior to pushing back into the ramp or apron. This applies to all aircraft gate positions with the **exception** of the following:

1. **Concourse A Restrictions - N/A**
2. **Concourse B Restrictions - N/A**
3. **Concourse C Restrictions - N/A**
4. **Concourse D Restrictions - Aircraft operating at gates on Concourse D are restricted from performing primary deicing at the gate, and therefore, must utilize one of the deicing pads for all deicing events.**
5. **Concourse E Restrictions - Aircraft operating at gates on Concourse E are restricted from performing primary deicing at the gate, and therefore, must utilize one of the deicing pads for all deicing events.**
6. **Air Cargo Restrictions -**
 - a. **Midfield Cargo positions G1, G2, and G3 restrictions – N/A**
 - b. **Midfield Cargo positions G4 through G13 restrictions – Requires deicing fluid collection operations.**
 - c. **North Cargo positions F7, F8, and F9 restrictions – Requires deicing fluid collection operations.**
 - d. **Cargo carriers that are deiced by Menzies will perform all aircraft deicing at the Runway 28 Deicing Pad or Midfield Cargo. Aircraft at Midfield Cargo must be deiced on parking positions; no deicing will be allowed on taxilanes. If the Midfield Cargo air carrier desires to deice on the Runway 28 Deicing Pad, coordination with Menzies and approval from Airport Operations are required prior to leaving the Midfield Cargo Apron.**

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- e. Cargo carriers performing their own aircraft deicing operations **shall not deice** directly over the existing drains located behind gates F6, F7, F8, and F9.
- f. Aircraft deicing is restricted to **defrosting only** at spots F18, F18A, F19, F20, F20A, F21, F22, F23, and F24.

D. EXEMPTIONS

- 1. Concourses D, DY, E, and Commuter: Tenant aircraft with maintenance restrictions that preclude deicing at a deicing pad may deice at the gate with prior permission from the Airport Operations Center. The tenant will be required to coordinate the gate deicing with the Airport Operations Center prior to discharging any deicing fluids and to ensure a Glycol Recovery Vehicle (GRV) is available for immediate cleanup.
- 2. When pre-taxi inspection reveals heavy accumulations of snow/ice on aircraft surfaces that preclude the safe repositioning of the aircraft to an approved deicing location, deicing may be performed at the parking gate. **This operation is limited to removing accumulations of snow and ice that preclude the safe repositioning of the aircraft only and must be coordinated with the Airport Operations Center.**
- 3. Early morning "Aircraft Defrosting" activities described in Section II.B above may be performed at the aircraft parking gate and are exempt from the restrictions listed in Section III.C of this Directive.
- 4. Anti-icing of an aircraft using Type IV anti-icing fluids is exempt from restrictions and may be accomplished at any aircraft parking gate.

IV. Responsibilities

- A. BWI Marshall Airport utilizes GRV that are used to remove glycol fluids from around aircraft terminal gates and air cargo parking spots. They may also remove glycol fluids from the deicing pads. This operation will not interfere with any aircraft deicing and/or snow removal activity.
- B. The Airport Operations Center **may** take the following action(s) when a Deicing Event is anticipated:
 - 1. Notify the Airport's Noise Office that aircraft with operating noise levels greater than 87.0 EPNdB will be allowed to takeoff/land on Runway 15L-33R, if necessary to meet holdover times.
 - 2. Close portions of taxiways and ramps to accommodate deicing fluid recovery operations.

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V. Compliance

- A. Any deviations to this deicing Directive must be approved by the Airport Operations Center prior to any deicing.
- B. All air carriers and ground handlers shall comply with the provisions of this Directive. The Airport's NPDES permit states, "**Deicing activities which are not authorized in the permittee's Best Management Practices Plan shall be reported in writing to the Maryland Department of Environment within five working days.**" BWI Marshall Airport intends to fully comply with this requirement and will report all observed violations of this Directive to the regulatory authority.
- C. The Maryland Aviation Administration (MAA) and its agents will monitor tenant activity for compliance with this Directive and report all observed violations to appropriate authorities. Tenant concerns and observed violations should be directed to the Airport Operations Center.
- D. Violations of these deicing procedures could result in additional restrictions being placed on the areas where aircraft Primary and Secondary Deicing operations can be conducted at BWI Marshall Airport. Other administrative sanctions may be taken, and the air carriers/ground handlers could be placed in default of their contract with the MAA for failure to comply with these procedures.
- E. The reporting of deicing fluid usage is required for the MAA to determine compliance with the NPDES permit conditions. Air carriers and FBOs must complete the Aircraft Deicing/Anti-Icing Log (Form MAA-045 available on the tenant website) for every aircraft that is deiced. The information that is required includes date, time, gate location, type of fluid used, concentration of glycol, volume applied, weather condition, aircraft or flight number, and type of aircraft. The supervisor responsible for overseeing deicing operations must sign each log sheet. Unsigned logs will be returned for signature. Reports must be provided weekly on MAA supplied or approved forms. The completed forms may be faxed to 410-859-7082 (See Attachment 2).

ADDITIONAL AUTHORIZED DOCUMENTS

- Attachment 1: Figures 1-4: Deicing Pad Locations
 - Attachment 2: Aircraft Deicing/Anti-Icing Log (MAA-045)
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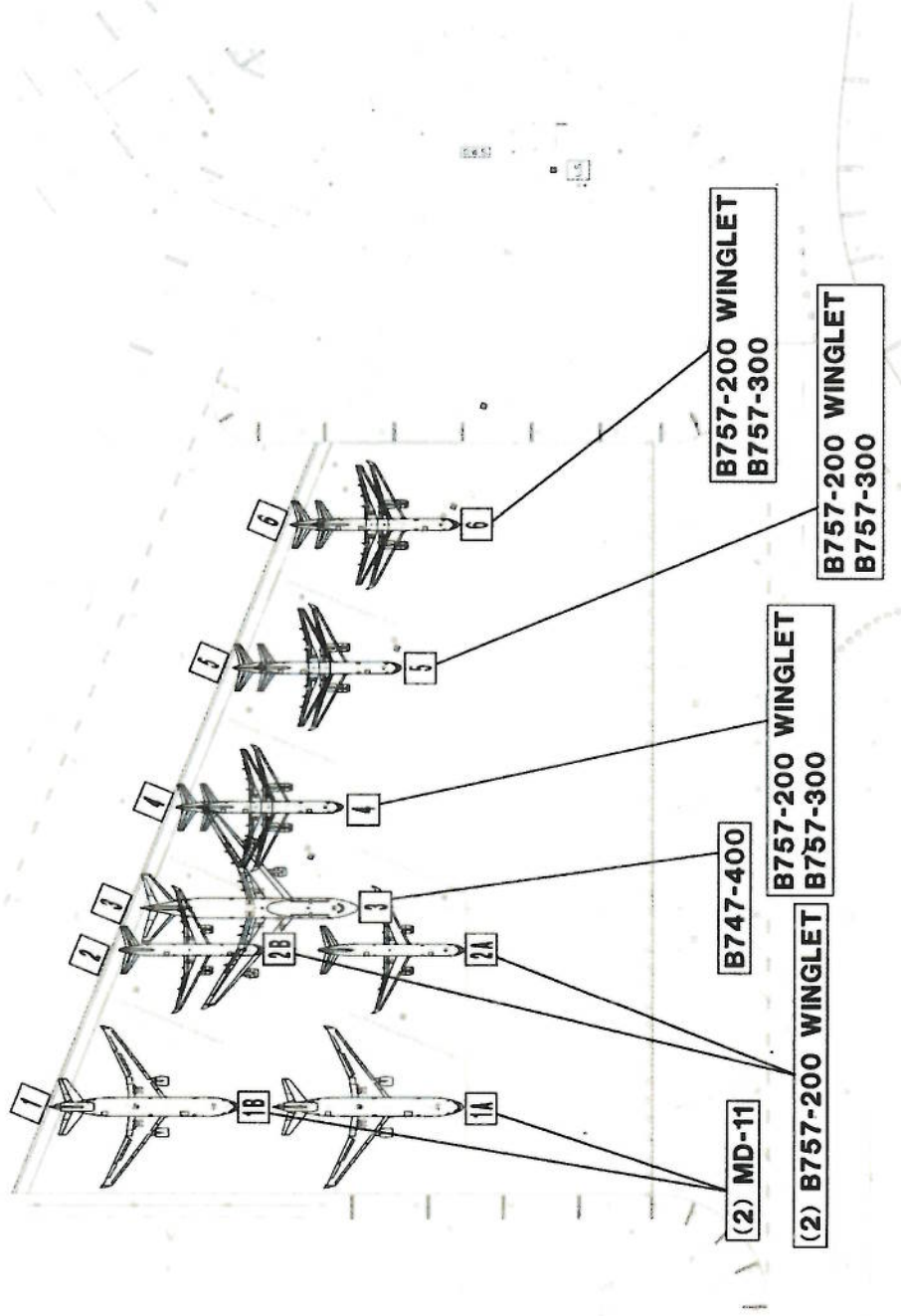
ADDITIONAL INFORMATION

Contact Information

Director
Office of Airport Operations
410-859-7024

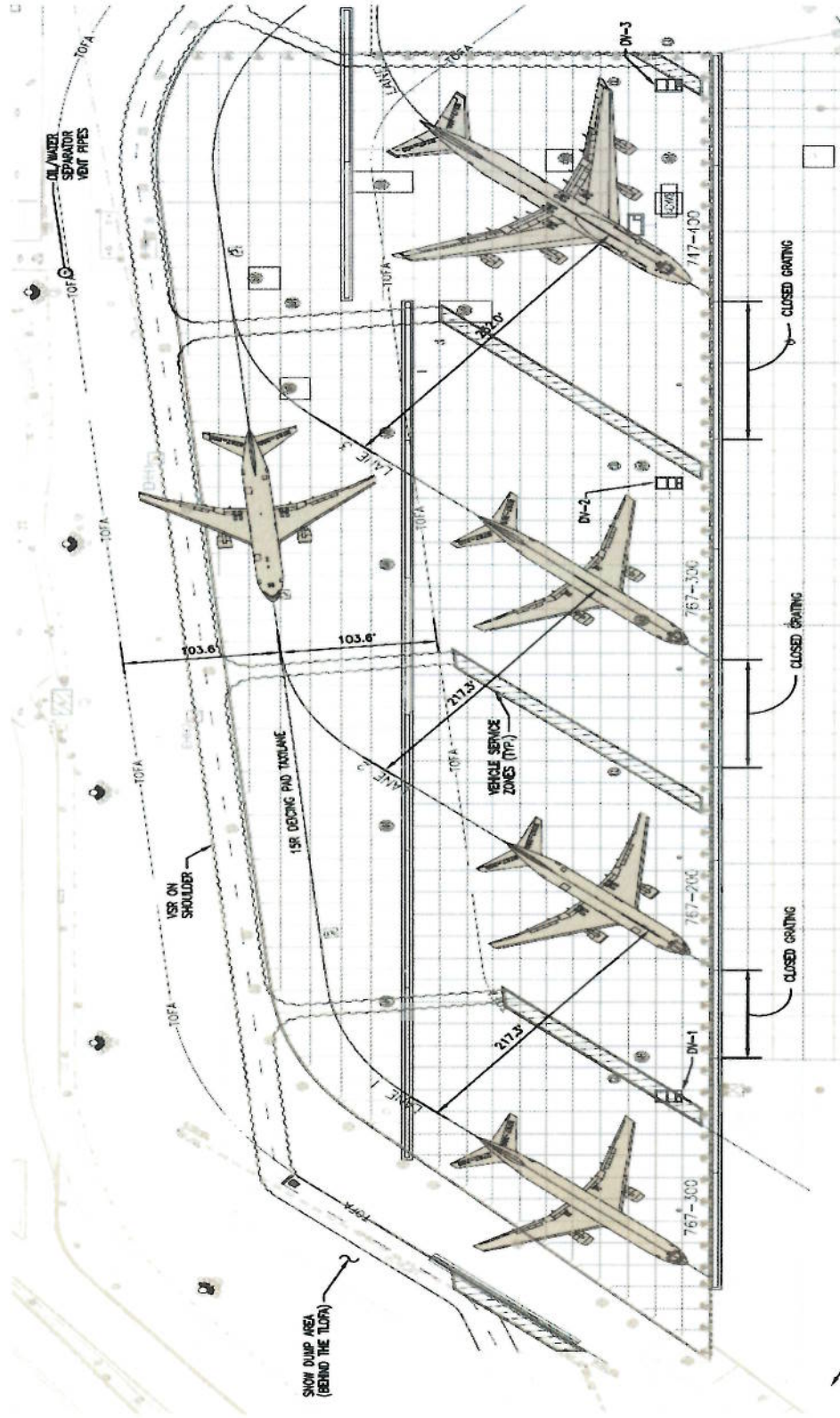
Manager
Airport Operations
410-859-7194

Figure 1: Runway 28 Deicing Pad



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Figure 2: Runway 15R Deicing Pad



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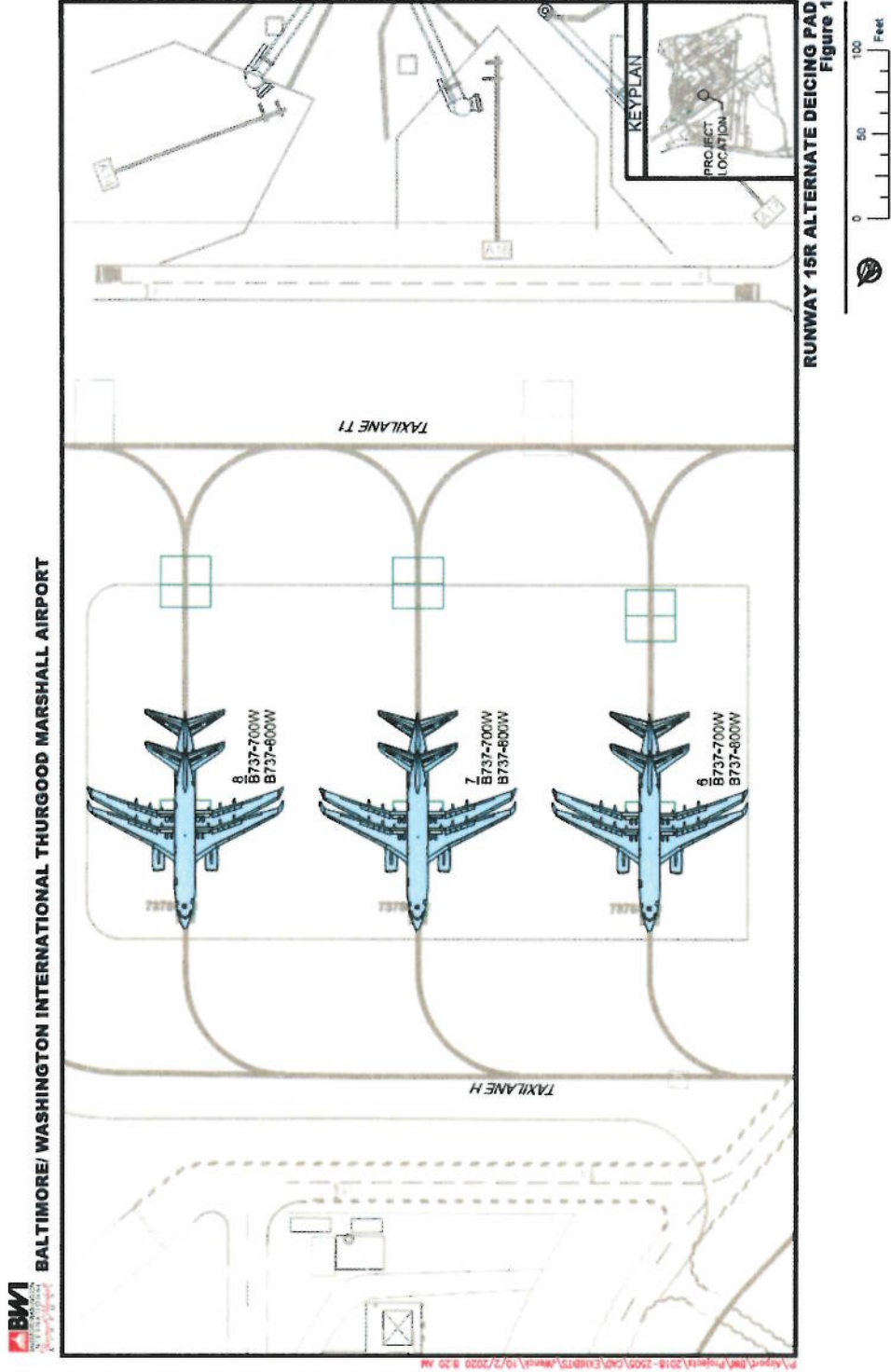
Figure 3: Runway 15L-33R Deicing Pad



ATTACHMENT 1

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Figure 4: Runway 15R Alternate Deicing Pad



ATTACHMENT 1

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MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION
AIRCRAFT DEICING / ANTI-ICING LOG

DEICING COMPANY: _____

DATE	START TIME (24HR)	DURATION (Min)	LOCATION GATE # OR PAD	FLUID TYPE		MIXTURE glycol / water	TOTAL MIXTURE APPLIED (Gal)	WEATHER CONDITIONS (snow, ice, frost, rain)	CARRIER OR A/C #	AIRCRAFT TYPE (727,737, 757,MD80)
				1,2	ETHYL (E) OR 4 PROPYL (P)					

PAGE _____ OF _____

SUBMIT FORM TO: MARK WILLIAMS
ENVIRONMENTAL COMPLIANCE OFFICE
FAX NUMBER 410-859-7082
EMAIL: mwilliams1@bwiairport.com

SIGNATURE : _____

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