

# Dallas Fort Worth International Airport

## Aircraft Deice Operations Plan

2021 – 2022 Winter Weather Season



EFFECTIVE DATE: November 15, 2021

# Dallas Fort Worth International Airport Winter Operations Aircraft Deicing Prioritization Policy

The Dallas Fort Worth International Airport Board ("Board") is committed to ensuring that outstanding facilities and services are available to signatory Airlines, non-signatory Airlines or other Airlines ("Airline(s)") at Dallas Fort Worth International Airport ("DFW"). To ensure efficiency during inclement winter operations, the Board has adopted this Winter Operations Prioritization Policy ("Policy") for deicing and anti-icing operations at DFW.

This Policy establishes priority among competing air services for the use of deicing pads and staging areas at DFW when inclement winter operations require aircraft deicing/anti-icing services. The Board sets forth this Policy mindful of the need and desire to accommodate as many Airlines as possible during inclement winter operations, however, the Board reserves the right to prioritize the use of facilities and services if they become limited. The effective date of this Policy is November 15, 2021.

During inclement winter operations requiring deicing/anti-icing services, the Board will review Airline deicing/anti-icing requests and assign a priority for each proposed flight operation based on the best interest of airport operations and efficiency.

## **Administrative Implementation**

Since there may be limited resources and facilities available for aircraft deicing/anti-icing activities at DFW during an inclement winter operation event ("Event"), the Board may implement a prioritization process to maximize the efficiency of deicing/anti-icing services at DFW. The prioritization process will include, but not be limited to the following:

1. Deicing/anti-icing activities at DFW are only allowed at areas designated by the Board and are noted in the DFW Aircraft Deicing Plan. No aircraft will be deiced in an area that has not been approved by the Board.
2. Airlines and Service Providers must have prior Board approval as to where deicing fluids and other associated materials are stored at DFW.
3. Deicing/anti-icing activities at the DFW may be performed by the Airline or an authorized Service Provider that has executed a Deicing Permit with the Board and authorized staff has received and completed DFW deicing accreditation training.

- a. To be an authorized Service Provider, an entity must have an executed Deicing Permit with the Board to perform deicing/anti-icing services at DFW, proof of required insurance as determined by the Board, and agree to hold the Board, City of Fort Worth, City of Dallas and all of their respective employees, agents, and representatives harmless from any damages or injury caused by its actions or inaction (“Service Providers”).
4. Board will designate deicing pads and staging areas at DFW.
5. Board will assign deicing pads to Airlines and Service Providers based on what the Board considers to be in the best interest of airport and Airline operations at DFW during an Event.
6. During an Event, as determined by the Board, DFW Integrated Operations Department (“DFW IOC”) will notify the Airlines of the Event through the Everbridge Notification System.
  - a. Any Airline at DFW may request to be added to the distribution list of the Everbridge and IOC will include such Airline on the Everbridge notification system distribution list.
7. During an Event American Airlines (AA) and its regional partners will manage deicing operations through their established ramp tower procedures but will coordinate closely with DFW IOC and at the deicing locations.
  - a. The purpose and function of the IOC Ramp Control / AA Hub Control Center is to coordinate with the Airlines and Service Providers on aircraft movements to designated deicing pads and staging areas.
    1. Aircraft movements into the Southwest Hold Pad (SWHP) will be managed by AA Deicing team (“Snowman”) using snowman frequency 130.2.
      - a. DFW Airfield Operations will be on site at SWHP to assist and facilitate operations and ensure no disparities regarding the effective use of the deicing spots.
    2. Aircraft movements into the Southeast Hold Pad (SEHP) will be managed by AA Snowman using snowman frequency 131.75.

- a. DFW Airfield Operations will be on site at SEHP to assist and facilitate operations and ensure no disparities regarding the effective use of the deicing spots.
3. Demand departure tools, such as Passur Portal, Leonardo/INDMEX's Airboss, CASA, L3 Harris OpsVue, Sensis Aerobahn, or other equivalent applications, will be utilized to assist with the planning of deicing operations at the deice sites.
- b. Airline and Service Providers engaged in deicing/anti-icing activities at DFW will ensure that an employee or its agent is at the applicable deicing pad and staging areas with appropriate communication devices (i.e. handheld radios, cell phones, etc.) to communicate with the appropriate Ramp Tower(s) regarding deicing / anti-icing activities and matters related to the Event. The Airlines and Service Providers will ensure that all communication devices are operational, functioning properly, and will have sufficient power (i.e. battery power, etc.) during the Event.
    - i. During certain Events, DFW Airfield Operations staff will be positioned at the SEHP and SWHP deicing locations to monitor the movement of aircraft at these designated deicing locations and their utilization by the AA Deicing Team.
    - ii. Notification to the Airlines, service providers, and FAA ATC regarding facilitated support by DFW Airfield Operations will be communicated through DFW's Everbridge Notification System.

### **General Rules for Deicing Pads and Staging Areas**

1. Airlines and Service Providers must have executed a DFW Deicing Permit prior to performing any deicing/anti-icing activities at DFW.
2. At least annually, Airline and Service Providers will notify the Board of which Airline(s) they plan on deicing and will update the Board with any changes.
3. During, and if possible, prior to an Event, Airline and Service Providers will provide the Board with the number and size of aircraft they plan to deice / anti-ice and the scheduled times of the aircraft to be deiced / anti-iced.

This could be revised throughout the Event, as weather and other factors could drive changes to Airline schedules.

4. During an Event, Airlines will not dispatch an aircraft to a deicing pad or staging area without clearance from the applicable ramp Tower.
5. Airline or Service Provider will advise Board of when an aircraft parking position on the deicing pad is clear, available, and ready to accept an aircraft. DFW Airfield Operations will assist with the coordination and communication during these Events.
6. Airline and Service Providers will only direct aircraft to the authorized and designated aircraft parking positions of the applicable deicing pad(s) and staging area. For example, if there are nine (9) aircraft deicing positions on a deicing pad and an aircraft is directed to position #2 at that pad, then the aircraft must only utilize position #2 unless it receives specific clearance from the AA Deicing Team, or DFW Airfield Operations to utilize another aircraft parking position in that pad.
7. Airline or Service Provider will not request clearance for an aircraft to be dispatched to an aircraft parking position on the deicing pad or accept an aircraft until such time that the aircraft parking position on the deicing pad is available for unrestricted use.
8. Airlines and Service Providers will ensure that adequate deicing fluids, deicing truck(s), manpower, and other associated equipment and materials are readily available and on site to properly deice / anti-ice the appropriately sized aircraft before accepting an aircraft at an aircraft parking position on the deicing pad or staging area.
9. Airlines and Service Providers will have on the designated deicing area at least the amount of deicing trucks and equipment to deice / anti-ice as set forth on the Minimum Equipment Requirements list attached to this Policy, which such spreadsheet may be amended and updated from time to time.
10. When a deicing spot at the SEHP or SWHP is not being used due to any scheduled flight operations and/or a deicing provider is not available due to the points noted in #8 above, the deicing spot(s) may be used by any Airline upon coordination with AA Snowman at that pad site and concurrence and Airline/service providers. As stated, DFW Airfield Operations staff will be positioned at these sites to ensure no disparities regarding the effective use of the deicing spots.

11. Airlines and Service Providers will ensure that all employees and agents engaged in deicing/anti-icing activities at DFW are adequately trained to perform deicing activities in a safe, secure, correct, and proper manner.
12. Airlines and Service Providers will use best efforts to restrict all deicing/anti-icing activities to within the designated catchment areas of DFW and use best efforts to minimize any spillage and overspray of deicing/anti-icing fluids and other associated materials used in the deicing/anti-icing process and properly handle and cleanup such deicing/anti-icing fluids and materials in compliance with federal, state, local laws and in compliance with Board rules and regulations.
13. Airlines and Service providers performing deicing/anti-icing activities at DFW will ensure that aircraft are positioned in such a manner that the spray from performing deicing/anti-icing does not contaminate other vehicles, facilities, or people.
14. Only propylene fluids will be used for aircraft deicing/ anti- icing at DFW. No other products will be used, unless authorized by the express prior written permission of the Board. All aircraft deicing operations will be conducted in accordance with Federal Aviation Administration (FAA) directives, aircraft manufacturer's specifications, the Airport's CDPS permit and associated SWMP, the Ramp Snow Removal Plan, and DFW Rules and Regulations.

### **Winter Operations Prioritization**

If there are not enough aircraft parking positions on a particular deicing pad or staging area to accommodate all the requested Airlines and Service Provider's needs, then the Board, in its discretion, may:

- a. If available, redirect aircraft to alternate deicing locations.
- b. Prioritize the use of the deicing pads and staging areas based on the guidelines set forth in the Board's Gate Prioritization Policy
- c. Board reserves the right at all times to reprioritize based on what is in the best interest of airport efficiency.

### **Administration of Policy**

Prioritization of the deicing pads and staging areas will be managed by Airfield Operations with coordination in the IOC. AA will continue to manage deicing operations through their established ramp tower procedures but will coordinate closely with the IOC and at the deicing locations.

DFW will exercise reasonable effort to accommodate Airline requests for use of the designated deicing pad(s), staging areas, and any associated facilities. However, in the event of a dispute concerning prioritization and usage of the deicing pads or staging areas, DFW reserves the right in its sole discretion to resolve the dispute as to what is deemed in the best interest of airport operations. Examples of possible disputes include irregular operations, weather impacts, airline delays, or other operational issues.

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## **1. INTRODUCTION**

The Dallas Fort Worth International Airport Board ("Board") allows aircraft deicing and anti-icing at DFW International Airport only at certain areas within the Airfield Operations Area (AOA) and only in accordance with this Deice Plan and related deicing permits. All Airlines and other entities requesting to conduct deicing or anti-icing activities at DFW Airport must obtain, maintain, and comply with the terms and conditions of current deicing permit(s) issued by the Board's Environmental Affairs Department (EAD). Aircraft deicing and anti-icing activities are strictly prohibited unless performed by authorized permittees and at authorized locations. Individual site-specific permits are required in order for any entity to conduct deicing activities in areas not specifically designated by the Board for collection of deicing fluid run-off, e.g., ramp or gate areas. The Board may assess "Violations" and associated fees for violations of this Deice Plan and/or any Board deicing permit in accordance with the Schedule of Charges & Enforcement Remedies in Section 15, of this Plan.

## **2. PURPOSE**

The purpose of this Deice Plan is to identify areas and procedures for the deicing and anti-icing of aircraft at Dallas Fort Worth International Airport and to identify areas of responsibility for location, implementation, operation, and monitoring of the Deice Plan and Charges & Enforcement Remedies for violations of this Plan. This Deice Plan is effective November 2, 2020 in order to assure compliance with applicable environmental laws, rules, and regulations. It is adopted in accordance with the Terms and Conditions of the Board's Deicing Permit.

This Plan shall prevail in the event there is a conflict with Airline's Deicing Permit or with other previously issued deicing rules or regulations promulgated by the Board.

## **3. ROLES AND RESPONSIBILITIES**

### **A. ENERGY, TRANSPORTATION, AND ASSET MANAGEMENT**

DFW Airport's Energy, Transportation and Asset Management (ETAM) is responsible for the management of the airport's spent aircraft deicing fluid capture, collection, storage and treatment infrastructure. This includes the opening and closing of all valves needed to direct deice or anti-ice fluids to the deice locations storage tanks and prevent these fluids from entering the stormwater or industrial waste drainage systems and the operation of the airport's computerized deice Supervisory Control and Data Acquisition (SCADA) monitoring system. ETAM is also responsible for the emptying of deicing/anti-icing fluid collection tanks and access by contractors for this purpose. In the event ETAM is unable to provide escorts for tank servicing, they may request assistance from Airfield Operations, if personnel are available.

ETAM is also responsible, through their contractors, for the plugging of the drains on the inner portion of the Terminal D ramp prior to the first deicing event and the sweeping/collecting of spent aircraft de-icing fluid (SADF) near these drains for each deicing event. The drains on the inner portions of the Terminal D ramp will remain plugged during the deicing season. ETAM will also sweep the entire Terminal D ramp at the end of the deicing season.

## **B. ENVIRONMENTAL AFFAIRS DEPARTMENT (EAD)**

DFW Airport's EAD is responsible for all environmental issues. At the beginning of each deicing season, Airlines and Service Providers are responsible for submitting specific information to EAD, related to deicing activities, chemicals to be used, and emergency response procedures. EAD issues Airlines and contractors DFW Deice Permits and trains or oversees training of all accredited persons involved in deice operations. The individual Airlines and deicing contractors are responsible for the training of their crews and personnel involved in aircraft inspection and deicing operations.

EAD has contracted for the collection of excess deicing fluid on the ramps. Once deicing is completed, the contractor will sweep the Deice Site(s) so the movement area can be restored. In addition, during longer deicing events, EAD and the contract sweeper will sweep individual deice spots in between aircraft deicing operations.

EAD will collect all information on deicing operations (Glycol Usage Forms) from each Airline or contractor no later than 12:00pm/Noon the day following the deice event. EAD will also ensure compliance of all environmental issues and will assess fees for violations as found in Section 15. Schedule of Charges & Enforcement Remedies, of the deicing training manual. EAD Personnel will also monitor deicing operations at the designated deicing sites for compliance with all environmental laws and regulations.

## **C. INTEGRATED OPERATIONS CENTER (IOC)**

The IOC Bridge Manager, or his/her designee, is responsible for approving all aircraft deice requests from the Airlines and deice contractors. The IOC will make all necessary notifications including, but not limited to, Federal Aviation Administration (FAA) Air Traffic Control Tower (ATCT), ETAM, Customer Experience, Airfield Operations, and EAD. The IOC Bridge Manager will be the approving authority for all deice operations. Assigned spots not being used may be re-assigned by the IOC Bridge Manager when deemed necessary in order to preserve overall deicing capacity and ensure efficient operations.

## **D. AIRFIELD OPERATIONS**

When notified by the IOC of the intent for a tenant to begin deicing activities, the Airfield Operations Officer will initiate changes to airfield status (converting

movement area to non-movement areas) with the appropriate FAA ATCT. Airfield Operations personnel will monitor deicing sites for compliance with this Plan. Information on all observed or reported violations will be immediately communicated to the IOC, who in turn will immediately notify EAD with the known details of the violation.

Airfield Operations personnel will also monitor the use of deice sites and report any inactivity to the IOC to determine if a deice pad site should be closed to deicing. During a winter weather precipitation event Airfield Operations and Environmental Affairs personnel will be monitoring the use and availability of the deice spots within the deice pad sites closely, in particular, the Southwest Hold Pad and the Southeast Hold Pad, to ensure both the effective utilization of the site and protection of the environment. The IOC will act as a facilitator when deicing spots are needed.

Airfield Operations will provide the following escorts:

- A dedicated escort between the Terminal F Hardstand and Southwest Hold Pad during deicing operations at that location.
- Escorts will be provided for deicing service providers between deicing sites to facilitate the efficient deicing of aircraft. (i.e. Southwest Hold Pad to Southeast Hold Pad)
- **Effective January 3, 2022 (if activated)**, during South Flow when deicing occurs on the SE Hold Pad, a dedicated escort will be required and provided between the 5E ramp and the SE Hold Pad. Taxiway JS will remain open and aircraft will enter the SE Hold Pad on Taxiway L and face west.

## **E. AIRLINE/DEICING SERVICE PROVIDER RESPONSIBILITIES**

Airlines are responsible for determining when they should deice/anti-ice their aircraft. Once the determination has been made to deice, the Airline shall notify the IOC at (972) 97DEICE (972-973-3423) to request the activation of Deice Site(s). The Airlines should identify the estimated number of aircraft and timeframe within which they plan to deice/anti-ice, the Deice Site(s) they are requesting to utilize and any escort requirements they may have to set up the deice location(s).

No Airline may proceed with deicing/anti-icing activities until the IOC has specifically responded with a verbal approval and a green light is on at the deice valve control light. In the event the green light is not operational but the valves are positioned correctly, an Airfield Operations employee will go to the site and relay from the IOC Bridge Manager to the Airline's/tenant's Accredited Supervisor that the valves to the collection tank are properly configured (aligned) and deicing may proceed.

Upon completion of deicing activities, the Airline must remove FOD and immediately notify the IOC and advise that their personnel and equipment are clear of the area. Additional responsibilities are outlined in the Deicing Accreditation Course provided by EAD.

## 4. PRE-DESIGNATED INSPECTION/DEICE LOCATIONS

### A. BACKGROUND

FAA has mandated, per Code of Federal Registry (CFR) Parts 91, 121, 135, and 139, certain rules that require certificate holders to perform deicing inspections of aircraft prior to takeoff depending on weather conditions and the time the aircraft was last deiced.

The security requirements of the Transportation Security Agency (TSA) Regulation (TSR CFR part 1542, Airport Security, and TSR CFR part 1544, Aircraft Operator Security: Air Carriers and Commercial will be complied with.

In order for a certificate holder to fully comply with the inspection requirements, the Dallas Fort Worth Airport Board in concert with the FAA ATCT and local Airlines has developed this plan to allow aircraft icing inspections and off ramp deicing at pre-designated points within the aircraft movement area.

**Note:** Deice operations will not begin until ETAM has properly configured the valves to the deice/anti-ice fluid collection tanks.

### B. INSPECTION/DEICE POINTS

In order to safely accommodate movement of personnel and equipment into the movement area to inspect and deice aircraft waiting for departure and ensure that proper taxi procedures are followed, pre-designated deice pads and inspection points have been established for both North Flow and South Flow conditions. Each inspection point and associated taxi procedure is outlined below and is also illustrated in Section 4, Pre-Designated Inspection/Deice Locations of this Plan.

In order to maximize efficient use of both Deice Sites the utilization of deicing spots within the Southwest and Southeast Hold pads will be facilitated by AA through the Snowman frequency.

#### 1) North Flow - Southwest Hold Pad

All Airlines

- a. Inspection Point: On Taxilane H1 south of Taxiway A. Inspection vehicle(s) will be located west of Taxilane H1.
- b. Concept of Operation:

- In the vicinity of, but prior to, the intersections of Taxiways F, G, HA, B and A, pilots will inform the ATCT Ground Control if an inspection or deicing is required.

**Note:** Deicing crews may contact aircraft that are queued up awaiting entry into the Southwest Deicing Location on VHF frequency 130.2.

- Aircraft not requiring an inspection or deicing will be directed by the ATCT Ground Control
- Aircraft requesting an inspection or deicing will be directed onto Taxilane H-1 south of Taxiway A or to a holding position as directed by the ATCT.
- Aircraft not requiring deicing following the inspection will be directed by the ATCT to a departure runway.
- Aircraft requiring deicing will be marshaled or directed to Taxiway HS south of Taxiway A for off-ramp deicing. When deicing is complete, aircraft will be directed by the ATCT.

## 2) North Flow - Taxiway C (UPS Ramp)

Aircraft coming out of West Cargo, Emery Ramp, International Air Cargo, and UPS may use the Taxiway C Deice Pads located on the East Side of the UPS ramp.

### a. Entering the Taxiway C Deice Pads

- Tenant Airlines requiring deice at Taxiway C Deice Pads will contact West FAA ATCT Ground Control on VHF frequency 121.85 before taxiing onto the movement area.
- West FAA ATCT will instruct aircraft to hold prior to entering that portion of Taxilane C north of Taxiway Y.
- Aircraft requesting deice must contact UPS Ramp Control on VHF frequency 129.9 before proceeding north of Taxiway Y on Taxilane C.
- UPS Ramp Control will issue instructions directing the aircraft to the deice pad.

b. Exiting the Taxilane C Deice Pads

- Aircraft will request taxi instruction by contacting UPS Ramp Control on VHF frequency 129.9 and request taxi instructions to exit deice pad.
- On Taxilane C prior to Taxiway Y, aircraft will contact the West Ground Control on VHF frequency 121.85 and request taxi clearance.

3) North Flow - Southeast Hold Pad

American Airlines (AA)

a. Inspection Point: On Southeast Hold Pad Taxiway JS, south of Taxiway K12. Inspection vehicle(s) will be staged on Taxiway K, south of Taxiway K12.

b. Concept of Operation:

- In the vicinity of, but prior to, the intersections of Taxiways K, L, B and A, pilots will inform East FAA ATCT, on VHF frequency 121.65 (East Ground) or 121.8 (West Ground), if an inspection is requested.

**Note:** Deicing crews may contact aircraft that are in queue waiting entry into the Southeast Deicing Location on VHF frequency 131.75.

- Aircraft not requiring an inspection/deicing will be directed to the departure runway by the ATCT.

**Note:** Aircraft/Ground Support/Service Equipment (GSE) equipment will not be permitted to block access from the 5E cargo ramp to Taxiway K12.

- Aircraft not requiring deicing following the inspection will be directed by the ATCT to the departure runway.
- Aircraft requiring deicing will be directed or marshaled to Taxiway K for off-ramp deicing. When deicing is complete, aircraft will follow East FAA ATCT instructions.
- **Note:** During South Flow operations the southernmost spot utilized for deicing (spot 11 for narrow body, spot 10B for wide body) must be vacated when requested by DFW in order for aircraft using the southeast end around taxiway (SE EAT) system to access Taxiways ER and L to taxi to the central terminal area.

## Terminal E Airlines

- a. Inspection Point: On Southeast Hold Pad Taxiway JS, south of Taxiway A but north of AA's inspection area. Inspection vehicle(s) will be staged on Taxiway K, south of Taxiway A.
- b. Concept of Operations:
  - Taxiways K, L, B and A, pilots will inform East FAA ATCT if an inspection is requested.
  - Aircraft not requiring an inspection or deicing will be directed by East FAA ATCT.
  - Aircraft requesting an inspection or deicing will be directed onto Southeast Hold Pad by East FAA ATCT.
  - When deicing is complete, aircraft will be directed by the East FAA ATCT.

## 4) South Flow - West Runways

### All Airlines

- a. Concept of Operation (aircraft coming across Taxiway Y or Z bridges):
  - Pilots will inform West FAA ATCT if an inspection or deicing is requested when they are in the vicinity of, but prior to crossing the intersections of Taxiway HY on Taxiway Y or Z.
  - The West FAA ATCT will direct aircraft not requiring an inspection to Runway 18L or 18R.
  - Aircraft requesting an inspection or deicing will be directed to the Southwest Hold Pad for inspection.
  - Aircraft not requiring deicing following the inspection will be directed to Runway 18L or 18R by West FAA ATCT.
  - Aircraft requiring deicing will be deiced at the Southwest Hold Pad or other authorized location as designated in this plan for deicing.

- c. Concept of Operation (aircraft taxiing westbound across Taxiway B or A bridges):
- Pilots will inform West FAA ATCT if an inspection or deicing is requested prior to crossing Taxiway HA on Taxiway B or A.
  - Aircraft not requiring an inspection will be directed to Runway 18L or 18R by West FAA ATCT.
  - Aircraft requiring deicing will be deiced at the Southwest Hold Pad or other authorized location as designated in this plan for deicing.
- d. Aircraft taxiing out of West Cargo, Taxilane Z, International Air Cargo Ramp and UPS may use the Northwest (Taxiway C) Deice Pads located on the east side of the UPS ramp.

Entering the Taxiway C Deice Pads:

- Tenant Airlines requiring deice at Taxiway C Deice Pads will request clearance from West FAA ATCT on VHF frequency 121.85 before taxiing onto the movement area.
- The West FAA ATCT will instruct aircraft to hold prior to entering that portion of Taxiway C north of Taxiway Y.
- Aircraft requesting deice must contact UPS Ramp Control on VHF frequency 129.9 before proceeding north of Taxiway Y on Taxiway C.
- UPS Ramp Control will issue instructions to aircraft to taxi to the deice pad.

Exiting the Taxiway C Deice Pads:

- Aircraft will request taxi instructions to exit the deice pad by contacting UPS Ramp control on VHF frequency 129.9.
- On Taxilane C prior to Taxiway Y, aircraft will contact the West FAA ATCT on VHF frequency 121.85 and request clearance to taxi.

## 5) South Flow - East Runways

All Airlines

### a. Concept of Operation (aircraft coming from the Central Terminal Area):

- Pilots will inform the ATCT Ground Control if an inspection or deicing is requested prior to the intersection of Taxiway JY on Taxiway Y or Z.
- Aircraft not requiring an inspection will be directed to Runway 17R or 17C by East FAA ATCT.
- Aircraft requiring deicing will be directed to Taxiway JS for off-ramp deicing. When deicing is complete the aircraft will be directed to Runway 17R or 17C by East FAA ATCT.

## 6) Requirements for Use of Deice Sites

No off-ramp deicing or anti-icing activities may be performed other than in pre-designated areas identified in this Section.

- To utilize any designated deicing location(s), an Airline must obtain a Deicing Permit from the Board's EAD even if the Airline plans to utilize a contractor that has a current Board Deicing Permit. The contractor is also responsible for adhering to the terms and conditions set forth in its Deicing Permit.
- Airlines participating in deicing operations are responsible for the safe handling of all aircraft permitted to enter the deicing site.
- Airlines and deice service providers must ensure that GSE and personnel restrict operations only to that location and must limit vehicle movement to full strength concrete areas only.
- Any spillage of deicing fluids outside of run-off areas must be reported immediately to the IOC at 972-97DEICE (972-973-3423) and the fluids must be cleaned up and disposed of properly.

**Note:** Airlines and tenants are responsible for Foreign Object Debris/Damage (FOD) control, including cleanup of FOD within their deicing areas and any other areas they request or have control of during any deicing event.

- Airport Rescue and Fire Fighting (ARFF) equipment, Airfield Operations vehicles, and other Airport Board emergency response vehicles have right-of-way over all other vehicles. Other than as indicated in this Plan, no GSE equipment will be permitted to operate along or park on emergency roads.
- During full deicing operations, AA Deicing Team (“Snowman”) will direct the aircraft to enter the deice pads and assign the deicing spot:
  - Southwest Hold Pad entry on Taxiway H1 south of Taxiway A
  - Southeast Hold Pad entry on Taxiways JS south of Taxiway A

**Note:** ETAM will open or secure the valves to the deice/anti-ice fluid collection tanks only under authorization from EAD. The general criteria under which the sites will be secured are summarized as follows:

- 1) The concrete surfaces have been drained of glycol fluid by one of the following methods:
  - a) One-quarter inch (0.25", 6 mm) of rain has fallen after completion of deicing operations.
  - b) The entire deice site has been cleaned of glycol with a vacuum truck (sweeper type) or other appropriate equipment and the collection system pipe has been flushed to remove standing SADF.
- 2) Actual precipitation amounts impacting the sites are in excess of the system design criteria of one-half inch (0.5", 12 mm) per hour.
- 3) Precipitation amounts in excess of the system design criteria of one-half inch (0.5", 12 mm) per hour are forecasted to impact the site(s).
- 4) System storage capacity is at critical levels (to be determined by joint consultation of Airport Operations, Environmental Affairs, and Energy, Transportation & Management, reference Appendix F).
- 5) System storage capacity will reach critical levels based upon short-term weather forecast information (to be determined by joint consultation of Airport Operations, Environmental Affairs, and Energy, Transportation & Asset Management Departments.)

## 5. DEICE LOCATIONS

There are multiple official sites, also known as designated Source Isolation Deicing Sites (SIDS), at which an aircraft may deice and/or anti-ice. These locations (also shown on the Deicing Location Maps in Section 16) are:

- Southeast Hold Pad - Located south of Taxiway A on Taxiways K and JS. This site has deice spots for 2 wide body and 11 narrow body aircraft. Movement and positioning of aircraft into deicing spots within the pad site are facilitated by AA Deicing Team (“Snowman”). In order to prevent surface incidents in which vehicles or pedestrians enter the aircraft movement area without authorization DFW Airport has provided a route of travel map from the central terminal area to the Southeast Hold Pad. Please see attached map in Appendix C.
  - **NOTE:** All aircraft needing to deice at the Southeast Hold Pad must access the pad site via Taxiway JS.
- Northeast Hold Pad Area - Located between Taxiways EF and EH on Taxiway K. The narrow body aircraft **must use** the wide body spot for deicing. In order to prevent surface incidents in which vehicles or pedestrians enter the aircraft movement area without authorization DFW Airport has provided a route of travel map from the terminal area to the Northeast Hold Pad. Please see attached map in Appendix C. The Northeast Hold Pad can accommodate the following aircraft:
  - 4 Regional Jets simultaneously (E-175) **or**
  - 2 Regional Jet and 1 wide body (B747-400 size or smaller) simultaneously **or**
  - 2 Regional Jet and 2 ADG-III simultaneously.
- **NOTE:** Additional signage has been installed west of the Northeast Hold Pad to help identify the boundaries of the deicing area. Please see Appendix J.
- Taxilane EK – Typically pre-assigned to AA, this location is at Apron Entry Points (AEPs) 22, 23 and 24 between the Terminal C ramp and Taxiway K. This is actually two separate deice areas, commonly called EK North (AEP 22) and EK South (AEP 24). There are 4 deicing spots in this area, 1 wide body spot and 3 narrow body spots. If a wide body aircraft is being deiced only 1 narrow body can be deiced simultaneously with the wide body.
  - **NOTE:** All B757 aircraft must use AEP 23 for deicing due to wingtip clearance concerns at AEPs 22 and 24.

- Taxiway Z - Located on Taxilane JY between Taxiway Z and Terminal A north ramp. This area can deice 1 wide body or 2 narrow body aircraft. If a wide body aircraft is being deiced, no other aircraft can be deiced at the same time.
- Taxilane C/UPS Ramp Deicing Area - Located on the UPS ramp, west of taxilanes C1 and C2. This area can deice a large number of both wide and narrow body aircraft. This deice area does not use the nose wheel markings. Parking for deicing will be directed by UPS Ramp Control on 129.9MHz.
- Taxilane HY – Typically pre-assigned to Terminal B carriers, is located on Apron Entry Points 105, 106 and 107 between Taxiway Z and the Terminal B ramp. This deice location can accommodate two (2) narrow bodies and one (1) regional jet simultaneously or one (1) wide body, or three (3) regional jets simultaneously.
- Taxilane WK – Typically pre-assigned to Envoy, is located at Apron Entry Point 122, between Taxiway G and Terminal B ramp. This deice area can deice up to three (3) Regional Jets at the same time.
- Southwest Hold Pad - Located south of Taxiway A on Taxiway HS. This deice area can deice eight (8) narrow bodies and two (2) wide bodies simultaneously. Movement and positioning of aircraft into deicing spots within the deice pad is facilitated by AA Deicing Team (“Snowman”). In order to prevent surface incidents in which vehicles or pedestrians enter the aircraft movement area without authorization, DFW Airport has provided a route of travel map from the Terminal F Hardstand to the Southwest Hold Pad and required escorts.
  - **NOTE:** Airbus A380 aircraft can be deiced at the Northern side of the pad site. The two northern most narrow body (NB) spots are not available when an A380 is deiced at this location.
  - **NOTE:** Two additional WB deice spots are located in the Southwest Hold Pad: between spots 6 and 7 at 6B and between spots 8 and 9 at 8B (see map). If spots 6B and 8B are used the adjoining NB spots **must** be vacant.
- Taxilane WL/Apron Entry Point (AEP) 144 Deicing Area – located at the southwest corner of the Terminal D ramp. This deice area is the primary location for Airbus A380 operations. As such use of this deice location for other aircraft will be limited and only approved on a case by case basis. Use of WL/AEP 144 must be coordinated with and approved by IOC Gate Control in addition to the required coordination and approval of the IOC Deice Desk.

Airlines should ensure that their deicing resources and equipment are prepared to conduct deicing operations prior to their aircraft entering the deice pad site in order to minimize any potential operational impacts.

## 6. ACTIVATION AND USE OF DEICE SITE

- A. Notify the IOC at 972-97DEICE (972-973-3423) prior to any deicing activity.
1. Verify with the IOC that your deicing equipment and personnel are approved to enter and deice on the Deice Site.
    - **NOTE:** Entering the Southwest, Southeast, or Northeast Hold Pads before it is approved will result in a Surface Incident and immediate loss of driving privileges.
  2. To request an AMA escort to the following deice pads, utilize this link: <https://veoci.com/v/p/27025/workflow/cwdscx7k5x7r>
    - Southwest Pad during all deicing conditions
    - Northeast Pad
    - Southeast Pad during South Flow effective January 3, 2022 (if activated).
  3. Green, illuminated lights, at each deice site indicate the valves are in the proper position to drain deice/anti-ice fluids into the collection tanks.
- B. Notify the IOC immediately, but no later than two (2) hours after the completion of deicing activities. For gate deicing notifications to the IOC must be made within 30 (thirty) minutes of the completion of deicing.
- **NOTE:** During rain events contact the IOC earlier than two (2) hours to minimize fluids into the tank.
- C. Provide all information on the Glycol Usage Form by 12:00 p.m. (noon) the day after each deicing event to EAD by e-mail to [deicing@dfwairport.com](mailto:deicing@dfwairport.com).
- D. Promptly report and remediate any spill or over spray outside of the deicing pad to the IOC at 972-97DEICE (972-973-3423).
- E. Prevent deicing fluids from entering any water system other than the activated deicing pad collection system. Additionally, no hydrocarbon fluids (oils, hydraulic fluids, fuels, etc.) will be allowed to enter the deicing fluid collection system, or SIDS.
- F. An Accredited Deicing Supervisor must be within 500 feet (154 m) of the deicing activities at all times. For engine inlet only gate deicing an Accredited Deicing Supervisor must be within 200 feet of the deicing area.
- G. Verbal confirmation must be made where the green traffic lights are not installed or if the green traffic lights are inoperative prior to any deice/anti-ice operation.
- H. All persons using the deicing pads are responsible for cleanup of any and all debris and FOD prior to leaving the deicing pad.

- I. DFW Airport may suspend deicing activities at select sites or for the whole system depending on weather and or system capacity.
  - J. Ground Interrupts must be reported to the IOC immediately, see Section 11.
- **NOTE:** Any Airline or person who fails to comply with the mentioned procedures is subject to the fees set forth in Section 15, Schedule of Charges & Enforcement Remedies, of this Plan.

## 7. ON-RAMP/GATE DEICING/ANTI-ICING

- A. Anti-icing is strictly prohibited at DFW Airport except within authorized locations specifically identified in Section 5, Deice Locations, of this Plan. This activity may not be conducted at ramp or gate areas.
  - B. Deicing airframe or aircraft control surfaces is strictly prohibited except within authorized locations specifically identified in Section 5, Deice Locations, of this Plan. This activity may not be conducted at ramp or gate areas.
  - C. Engine inlet deicing at any gate or ramp areas at DFW Airport requires a site-specific individual deicing permit issued by EAD. Engine inlet deicing is limited to one of the following methods (or combinations):
    - 1) Hot air,
    - 2) Hot water deicing; and/or
    - 3) Mop and bucket/low flow spray with no more than **twenty-five (25)** gallons of deicing fluid (**Type I**) and/or five (5) gallons of anti-icing fluid (Type VI). A combination of both types of fluids may be applied to an aircraft.
- **NOTE:** Permittee must ensure that effective controls, i.e. blocked drains/ mats are in place prior to deicing to ensure any runoff does not enter the storm sewer system or stormwater inlets. If only hot air method is used, storm drain inlets may not need to be blocked if there are no other potential contaminants and if approved in advance by EAD.
- D. Any Airline or other entity requesting to conduct any gate or ramp engine inlet deicing activity must submit to the Board's EAD a written request/application containing, among other things, proposed written procedures for gate/ramp deicing. Airline/entity may deice in gate and/or ramp areas only after the Board approves its procedures and issues an individual site-specific gate/ramp deicing permit.
- **NOTE:** AA may be conducting engine inlet deicing at AEP 9 ("spot 9") and AEP 31("spot 31") within the non-movement area, in addition to engine inlet deicing at the terminal gates with prior approval from EAD.

- E. The Board may assess Violations for deicing/anti-icing violations occurring outside Designated Source Isolation Deicing Sites and/or for failure to comply with any individual permit(s) the Board may issue for ramp and/or gate deicing.

Section 15, Schedule of Charges & Enforcement Remedies, of this Plan identifies these Violations and associated fees.

- F. There will be no deicing activities of any kind on the former General Aviation (GA) Ramp or the Corporate Aviation (CA) 1E ramp. General Aviation/Corporate Aviation aircraft will be deiced at either the Southeast or Southwest Hold Pads, depending on which location their deicing operations provider is using to conduct deicing operations.

## **8. USE OF DEICE LOCATIONS**

Some deice locations have been typically pre-assigned to a specific terminal (B and D) to ensure pre-planned responses while other locations are not and may be used by any Airline or corporate aviation aircraft. While some of these locations have been pre-assigned it is important to note that deicing spot assignments are subject to change due to operational requirements.

It should be noted that DFW's goal is to maximize the efficiency of deicing/anti-icing services, including the efficient use of all available deicing spots:

- AA Ramp Control and Envoy Ramp Control will coordinate with the Airlines (passenger and cargo) and their service provider's aircraft movements to designated deicing pads and staging areas (focus on SEHP and SWHP)
  - Use of Snowman Frequencies: 131.75 (SEHP) and 130.2 (SWHP)
  - Movement and positioning of aircraft into deicing spots managed by AA Deicing Team ("Snowman").
  - DFW Airfield Operations staff positioned at SEHP and SWHP to assist and facilitate operations and ensure no disparities regarding effective use of deicing spots.
  - Airlines and service providers must be prepared to immediately conduct deicing operations when they request to begin this activity. Failure to do so can result in the requested deice spot(s) to be reassigned to another Airline/service provider who is prepared to begin immediately. Our goal is for the efficient use and optimization of all available deice spots.
- AA and its regional partners will continue to manage deicing operations through their established ramp tower procedures

## 9. DRY WEATHER AIRCRAFT DEICING OPERATIONS

When dry weather aircraft deicing operations are anticipated, (six (6) aircraft or less in a 2 two-hour window on the same deicing pad), DFW Airport will consolidate pad activations to more efficiently manage SADF impacted stormwater runoff and our overall storage capacity. Consolidation of the deicing pads during non-inclement winter weather will be managed by the Integrated Operations Department with coordination from DFW's Environmental Affairs Department.

According to Section 4.0 of DFW Airport's Aircraft Deice Operations Plan, once aircraft deicing pads are activated and used for aircraft deicing, the deicing pad cannot be secured until either:

- a. The deicing pad has been cleaned and all associated collection system piping has been flushed to remove residual spent aircraft deicing fluid (SADF); or
- b. One-quarter inch (0.25") of rain has fallen after completion of deicing operations in order to remove residual SADF.

Based on the pavement area associated with DFW Airport's source isolation deicing pads, up to 1,000,000 gallons of stormwater runoff is needed before pads can be secured and re-aligned to the stormwater collection system.

In order to eliminate the need to collect excess stormwater, DFW Airport reserves the right to activate the following procedures to ensure that pad utilization is restricted to specified locations and that system storage capacity is used in an efficient manner.

This will ensure that flight operations are not impeded due to lack of available SADF system storage capacity needed to support deicing operations during winter weather events.

1. Deicing/anti-icing activities at DFW are only allowed at areas designated by the Board and are noted in the DFW Aircraft Deicing Plan. No aircraft will be deiced in an area that has not been approved by the Board.
2. During dry weather deicing events in which minimal aircraft deicing operations are anticipated, Airlines and Service Providers will be directed to conduct deicing and anti-icing activities at one of following specified locations: Southeast Deicing Hold Pad and the Southwest Deicing Hold Pad.
  - **NOTE: Effective January 3, 2022 (if activated), during South Flow deicing on the SE Deice Pad, aircraft will enter the pad via Taxiway L and face west.**
3. After the Airline receives notification from the aircraft pilot/s of the need to conduct aircraft deicing, the Airline will contact the DFW IOC and request the utilization of an airport deicing pad, as required per DFW's Aircraft Deicing Plan. The requester must provide the anticipated time the aircraft/s will arrive at the deicing pad and the

anticipated number of aircrafts that will be deiced.

4. Airlines and/or Service Providers must ensure all nearby stormwater inlets are protected with an appropriate structural best management practices (BMP) to prevent SADF from entering the stormwater collection system. An acceptable BMP includes a spill mat or berm (e.g. NewPig urethane/rubber drain blocker, or equivalent) which will prevent fluid from entering the storm drain. Note: an absorbent boom, pad, and absorbent material (kitty litter) is not designed to absorb glycol fluid and for the purpose of this procedure is not considered to be an acceptable structural BMP.
5. The aircraft must be aligned with the appropriate nose-wheel marking specified for dry weather deicing. Refer to Section 16 Deicing Location Maps for Dry Weather Aircraft Parking Positions Map for additional reference.
6. Upon completion of aircraft deicing activities or within 60 minutes of initiating aircraft deicing activities, the Deicing Pad Cleaner/Glycol Recovery Service Provider will remove all residual SADF left on airfield pavement surfaces by cleaning impacted areas with the appropriate equipment (i.e. a regenerative air sweeper/ vacuum unit).
7. After deicing pads are appropriately cleaned, the deicing inspector can contact the IOC and provide the following information:
  - Actual end time,
  - Estimated volume of fluid used upon completion,
  - Number of aircraft deiced, and
  - Type of BMP utilized to remove residual glycol from deicing pad surfaces.
8. DFW personnel will conduct unscheduled inspections during such activities to verify proper procedures are being followed.
9. The deicing inspector will be required to complete and submit the Glycol Usage form indicating the final number of planes deiced and the volume of deicing fluid utilized per aircraft by 12:00pm on the day following the deicing activity.

## 10. NOSE WHEEL MARKINGS

Nose wheel markings for regional jets, narrow body, and wide body aircraft have been approved for use at designated deicing locations. There are no nose wheel markings at the Taxiway C Ramp deice location. All deicing should be conducted west of the UPS ramp centerline that parallels Taxiway C. These nose-wheel markings are to be used by ground crews to position aircraft for deicing. When aircraft are properly parked, deicing fluids will fall into the proper collection drains, however this does not account for all variables such as wind or jet blast.

The nose wheel markings are secondary to the proper collection of deicing fluids. If conditions so require, consult with Airfield Operations prior to positioning nose wheels outside of marked areas so that proper clearances may be assured, and deicing fluids are properly captured.

- “WB” indicates a Wide Body nose wheel marking (spot) for wide-bodied aircraft up to and including FAA airplane design group V (aircraft with a wingspan of 212’ or less). If needed, any aircraft, up to the size of ADG V may deice on this spot. Current examples of aircraft that can use the WB nose gear spot marking includes the following:
  - Boeing 747-400
    - Note:** Depending on the location, due to the aircraft’s wingspan, B747-8F and Airbus A380 require the use of:
      - Two (2) NB spots simultaneously, or
      - One (1) WB and one (1) NB spots simultaneously
  - Boeing 777 (both the -200 and -300 models)
  - Airbus A340
  - Airbus A330
  - Airbus A300-600
  - MD-11F
  - DC-10
  - B767
  - All narrow body and RJ sized aircraft can use a WB spot for deicing
- “NB” indicates a Narrow Body nose wheel marking (spot) for narrow-bodied aircraft up to and including B757 aircraft with winglets (aircraft with wingspans less than 135’). If needed, any aircraft up to this size may deice on this spot. Examples of aircraft that can use the NB nose gear spot marking includes the following:
  - B757W (winglets)
  - Airbus A319, A320, A321
  - B737
  - MD-80
  - All RJ sized aircraft

- “RJ” indicates a Regional Jet nose wheel marking (spot) for regional jet and air taxi aircraft with a wingspan up to and including 100’ wide. Only aircraft with a wingspan of 100’ or less may deice on this spot. Examples of aircraft that can use the RJ nose gear spot marking includes the following:
  - Embraer EMB-135, EMB-145, EMB-170, EMB-175, EMB-190, EMB-195
  - Bombardier CRJ100, 200, 700, 900
  - Corporate aviation aircraft

On the Northeast, Southeast, and Southwest Hold Pads, all nose markings have been enhanced. The enhancement will improve locating the marking when the pavement is wet with de-icing and/or anti-icing fluids. These nose wheel markings are framed by a square 3’ X 3’ that is painted with black paint.

Turbo-prop and piston engine aircraft may use any “RJ” or “NB” nose wheel marking to position these aircraft for deicing or anti-icing, provided they are in the appropriate aircraft design group and have met the wingspan requirements for these markings.

## **11. OFF RAMP AIRCRAFT PARKING PLAN**

### **A. NORTH FLOW**

- 1) All Airlines on the East Side that have aircraft that have been pushed off their gates and are waiting deice inspection and/or actual deicing may be parked by the ATCT Ground Controller off of the ramps.
- 2) For departing aircraft scheduled to deice on the Southwest Hold Pad, approximately nine (9) aircraft can be parked on Taxiway F between Taxiway F2 and Taxiway B. These aircraft will park heading south. The intersections along Taxiway F and Taxiways F2, WK, G7, G8, G9, WL, G10, WM, G11, and B will remain clear to allow for aircraft to exit Runway 18L/36R. An additional six (6) to seven (7) aircraft can be parked on Taxiway C between Taxiways WK and WM. These aircraft will park facing north. An entrance and exit to Taxilane C9 and the International Air Cargo (phase II) ramp will remain open. Taxiway WL between Taxiway C and Runway 18R/36L will remain clear of aircraft.
- 3) For departing aircraft scheduled to deice on the Southeast Hold Pad, approximately six (6) aircraft can be parked on Taxiway L between Taxiways L2 and B. These aircraft will park heading south. The intersections along Taxiway L and Taxiways L2, EK, K8, EL, EM, and B will remain clear to allow for aircraft to exit Runway 17R/35L.

Approximately five (5) to six (6) more departing aircraft may park on the Northeast Hold Pad, north of Taxiway Y on Taxiway K.

These aircraft will be directed by the ATCT Ground Controller as to which direction their aircraft should be headed. An additional 14 aircraft can park on

Taxiway P between Taxiways Z and EL. These aircraft will park heading north. The intersections along Taxiway P and Taxiways EJ and Z will remain clear of aircraft.

- 4) This plan can be modified by the FAA ATCT to meet operational demands.

## **B. SOUTH FLOW**

- 1) All Airlines on the East Side that have aircraft that have been pushed off their gates and are waiting deice inspection and/or actual deicing may be parked by the ATCT ground controller off the ramps.

For departing aircraft scheduled to deice on the Southwest Hold Pad, five (5) aircraft can be parked on Taxiway F between Taxiways A and WP. These aircraft will park with a heading assigned by the West ATCT ground controller. Ten (10) aircraft can park on Taxiway F between Taxiways WL and F6. These aircraft will be parked heading south.

- **Note:** Construction related airfield closures may impact the ability for departing aircraft to hold on effected taxiways.

Aircraft may block the intersections of Taxiways G9, G10, and G11. The intersections of Taxiways F6, B, F5, WM, F3, WL, and Taxiway F will remain clear of aircraft.

Seven (7) additional aircraft can be parked on Taxiway C between Taxiways WM and WK. These aircraft will park heading north. Taxilane C9 and the International Air Cargo Ramp (phase II/III) will remain open.

- **Note:** Construction related airfield closures may impact the ability for aircraft to hold on Taxiway C.

For aircraft scheduled to deice on the Southeast Hold Pad, seven (7) aircraft can be parked on Taxiway L between Taxiways K10 and L6. These aircraft will park heading south. The intersections of EM, L5, L6, B, and Taxiway L will be kept open. Approximately 14 aircraft may park on Taxiway P between Taxiways EL and Z. The East ATCT will decide the direction the aircraft will park. The intersection of Taxiways P and EJ will be kept open. Sixteen (16) aircraft can park on Taxiway Q between Taxiways Z and Q1. East ATCT will decide the heading for these aircraft. The intersection of Taxiways Q and EJ will be kept open. An additional four (4) aircraft may be parked on Taxiway R between Taxiways P and EJ. East ATCT will decide what the heading will be for these aircraft. The intersection of Taxiways R, R1, and Z may be blocked by aircraft.

For aircraft scheduled to deice on the Northeast Hold Pad, the parking plan for the southeast hold pad will be used. In addition to those parking positions, five (5) additional aircraft may park on Taxiway L between Taxiways A and EP.

These aircraft will park heading north.

- 2) This plan can be modified by the FAA ATCT to meet operational demands.

### **C. PRE-ASSIGNED DEICE AREAS FOR TERMINAL B AIRLINES**

- 1) North Flow

Airlines at Terminal B can use Taxilanes WK or HY to de-ice all aircraft. Envoy aircraft typically use AEP 122 on Taxilane WK or Taxilane HY or other locations at the NE Hold pad.

- 2) South Flow

Airlines at Terminal B can use Taxilanes WK or HY to de-ice all aircraft. Envoy aircraft typically use AEP 122 on Taxilane WK or Taxilane HY or other locations at the NE Hold pad.

### **D. OPERATIONAL PROCEDURES - HY DEICE SITE**

Envoy will coordinate with other tenants, as needed, for the use of the HY site. This does not relieve them of all proper coordination with the IOC.

### **E. OPERATIONAL PROCEDURE TERMINAL D - DEICING AT AEP 144**

Airlines at Terminal D requesting to use AEP 144 ("spot 144") for deicing operations will notify the IOC Gate Control prior to commencement of these activities in addition to the required notifications to the IOC.

When AEP 144 is used for deice operations, Airfield Operations will notify the West FAA ATCT that this spot is closed to inbound aircraft traffic and a NOTAM will be issued. In other words, this taxilane will be for outbound aircraft traffic only during the time it is used for deicing.

- **NOTE:** AEP 144 is the primary deice location for the Airbus A380. Use of this deice location for other aircraft will be limited and only approved on a case by case basis.

## **F. ENGINE INLET DEICING AT THE GATE / HARDSTAND**

- 1) Engine Inlet accredited person calls IOC Deice Desk notifying them that Gate / Hardstand engine inlet deicing will occur at the specific gate / Hardstand.
- 2) Engine Inlet accredited person may begin engine inlet deicing and is responsible for ensuring deicing fluid does not enter storm drains and to ensure that clean up is conducted by airline or service provider. EAD's contractor only cleans designated deice pads.
- 3) EAD will respond to the Gate / Hardstand to inspect for proper clean up.

## **12. AIRCRAFT THAT MUST RETURN TO THEIR RAMP, TERMINAL OR GATE AFTER DEICING (a.k.a. GROUND INTERRUPTS)**

Should an Airline have a need for any aircraft return to the ramp or gate for any reason after that aircraft has been deiced/anti-iced in a deicing location, that Airline must notify the IOC Deice Desk at 972-97DEICE (972-973-3423) **before** the aircraft taxis back to the ramp

The Airline will consult with the DFW Airport EAD to determine the appropriate preventive measures to deploy at the ramp/terminal/gate to contain any spent deicing/anti-icing fluids dripping from aircraft returning to the ramp/terminal/gate. For the purposes of this plan, a ground interrupt is defined as follows: "Any aircraft that has started or completed deicing or anti-icing, in any deicing location, that must return to any ramp, terminal, or gate".

It is the Airline's responsibility to notify IOC Deice Desk even if the aircraft was deiced by a contract deicing service provider.

### **13. SOURCE ISOLATION DEICING SYSTEM (SIDS)**

The Source Isolation Deicing System (SIDS) of DFW Airport consists of the monitoring of deicing sites as previously discussed in this plan. Each deicing site has one or more underground, ground level, or above ground storage reservoirs. All east side deice locations (except for the Northeast Hold Pad site) are connected to a storage lagoon located south of the Southeast Hold Pad site and to above ground storage ponds at the pretreatment plant (PTP) facility via an underground master pipeline. The Northeast Hold Pad deice location has a separate, off AOA offloading site in which tanker trucks are used to off-load spent aircraft deicing fluid. All west side deice location, with exception of Whisky Lima, have underground storage tanks that are connected to large storage ponds at the PTP via an underground master pipeline. The Southwest Hold Pad is also connected to a storage lagoon that is located south of the pad itself. The lagoons increase the storage capacity of DFW Airport by over 5,100,000 gallons. The Southwest lagoon has a 2,000,000-gallon capacity while the Southeast lagoon has a 3,100,000-gallon capacity. The total storage capacity at the PTP facility is 14,449,338 gallons.

ETAM, through the use of a centralized control system, monitors the levels of collected fluids at each individual deice site, lagoons, and storage ponds. The current capacity of the entire deicing collection system is 21.1 million gallons. All precipitation that falls during any deicing event will collect in the storage tanks and/or lagoons from the deice spots when the valves are aligned.

Thus, the system will fill at a faster rate during rainfall and reduce the capacity of deice product storage. This collection of rainfall may require the temporary suspension of deicing activities when the rate of precipitation exceeds the hydraulic carrying capacity of the site(s). The hydraulic carrying capacity of the DFW deicing system is 0.5"/hr precipitation rate. Should the system reach 85% of its maximum rated storage capacity during a deicing event, all deicing activities at DFW Airport will be temporarily suspended until the system storage capacity can be restored to a point where deicing activities may resume.

### **14. AIRLINE/SERVICE PROVIDER RESPONSIBILITIES TO REMEDIATE AND REPORT ANY SPILLS**

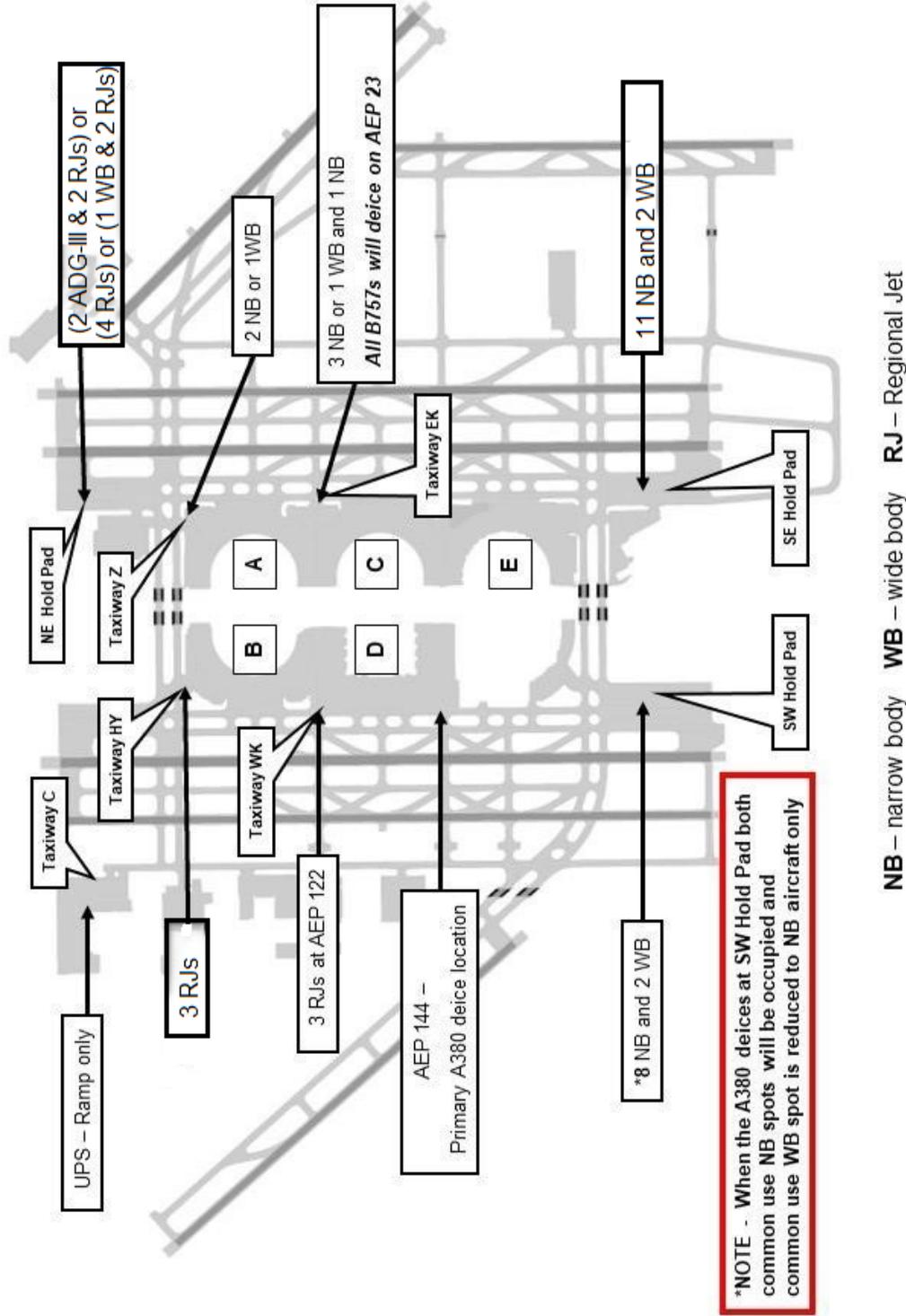
All deicing service providers must have the means to immediately clean up spills, preventing non-allowable impacts to stormwater. An emergency response plan including any emergency response contractors (i.e. vacuum truck, sweeper trucks, etc.) must be provided to DFW Environmental Affairs Department prior to the commencement of the deicing season. Notify DFW Integrated Operations Center at 972-973-3423 immediately of any accidental (spill or runoff), including overspray outside the designated deicing pad.

## 15. SCHEDULE OF CHARGES DEICING & ENFORCEMENT REMEDIES

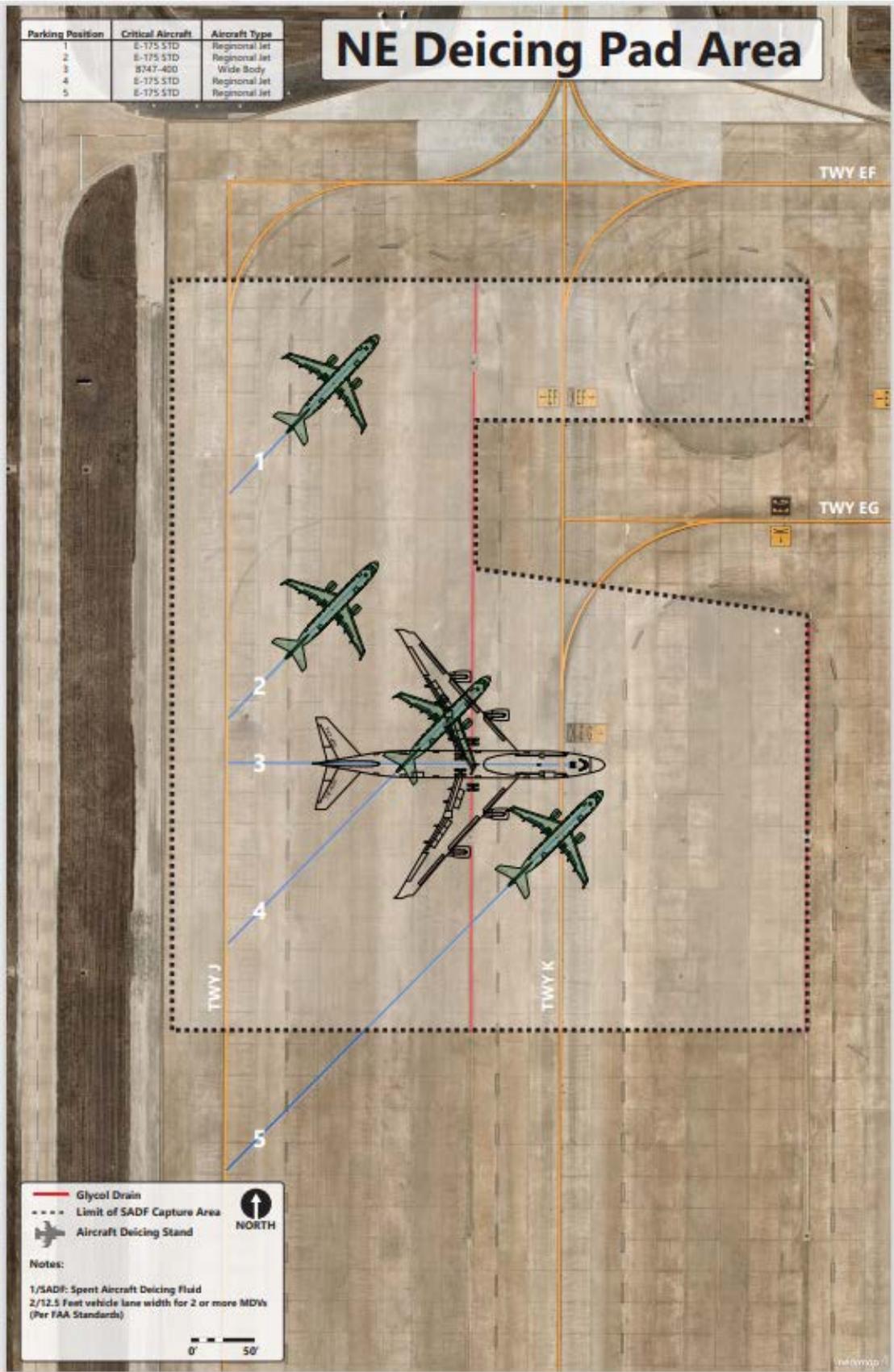
SCHEDULE OF CHARGES & ENFORCEMENT REMEDIES				
				
<p>PREAMBLE: DFW's goal is environmental compliance by the Airport Board, Tenants, and Contractors. To that end, except in exigent circumstances or impact on human health or the environment which, in DFW's discretion, require or merit immediate issuance of an Environmental Violation, or imposition of a fee, persons responsible for an environmental incident shall first be given the opportunity to meet the requirements of a compliance plan developed by EAD. If the responsible party fully meets the requirements of the compliance plan and the deadlines contained therein, it may be able to avoid issuance of an Environmental Violation, and/or imposition of a fee based on that incident.</p> <p>A repeat violation shall result in imposition of a fee.</p> <p>The Schedule of Charges and its fees are not DFW's exclusive remedy. The Schedule of Charges is in addition to DFW's rights under its Code of Rules and Regulations, law, permits, and contracts.</p>				
Violation	Category	1st Violation	2nd Violation	Subsequent/ High Threat
Failure to keep ramp or leasehold areas clean, orderly, and free of FOD or excessive trash	General	\$500/day NOV		
Failure to appropriately label any bulk (>35-gallons) chemical container	General	\$500/day NOV		
Improper storage of broken, unusable, or inoperable equipment and/or vehicles on ramp	General	\$500/day NOV		
Failure to prevent inoperable equipment and/or vehicles from being staged on ramp	General	\$500/day NOV		
Improper usage of trash containers and compactors (e.g. overfilling of trash containers and compactors, or inappropriate disposal of industrial chemicals or regulated waste into trash containers or compactors)	General	\$500/day NOV		
Failure to treat or remediate any chemical or accidental spill or release	General	\$500/day NOV		
Failure to report a spill or accidental release to the AOC within the time period prescribed by law or DFW Environmental Rules	General	\$500/day NOV		
Failure to report a reportable release to the TCEQ and/or EPA within the time period prescribed by law or DFW Environmental Rules	General	\$500/day NOV		
Failure to notify DFW AOC prior to aircraft deicing/anti-icing	Deicing	\$500 NOV	\$1000 NOV	\$2000 NOV
Failure to notify DFW AOC within 2 hours of completion of aircraft deicing/anti-icing	Deicing	\$500 NOV	\$1000 NOV	\$2000 NOV
Failure to have accredited supervisor on site (within permitted distance)	Deicing	\$500 NOV	\$1000 NOV	\$2000 NOV
Failure to submit completed glycol usage forms (within specified times)	Deicing	\$500 NOV	\$1000 NOV	\$2000 NOV
Failure to conduct deicing operations in authorized areas	Deicing	\$500 NOV	\$1000 NOV	\$2000 NOV
Failure to prevent a discharge of hazardous waste as defined by 40CFR261 to DFW's sanitary sewer <sup>1</sup>	Sanitary Sewer	\$2000 CPO	\$4000 CDO or SWO	\$10000 CDO or SWO
Failure to comply with Chapter 6 of DFW Airport's Code of Rules and Regulations <sup>1</sup>	Sanitary Sewer	\$2000 NOV	\$4000 CPO	\$10000 CPO
Failure to perform adequate preventive maintenance on storm or sanitary sewer structural controls	Stormwater	\$500 NOV	\$1000 NOV	\$2000 CPO
Failure to discharge stormwater associated with industrial or construction activity with the appropriate TPDES permit and/or SWP3	Stormwater	\$1000 CPO	\$2000 CDO or SWO	\$5000 CDO or SWO
Failure to install and/or maintain BMPs (structural or non-structural) in accordance with SWP3	Stormwater	\$1000 NOV	\$2000 CO	\$5000 CDO or SWO
Failure to initiate adequate stabilization measures to construction work in accordance with SWP3	Stormwater	\$1000 NOV	\$2000 CO	\$5000 CDO or SWO
Failure to implement or maintain appropriate recordkeeping requirements in accordance with SWP3	Storm water	\$1000 NOV	\$2000 CO	\$5000 CDO or SWO
Failure to prevent any prohibited discharge <sup>2</sup> from entering the storm sewer system	Stormwater	\$2000 CPO	\$4000 CDO	\$10000 CDO
Failure to prevent or eliminate an illicit connection to storm sewer system	Stormwater	\$2000 CPO	\$4000 CDO	\$10000 CDO
Failure to prevent a discharge resulting in a violation of water quality standards or resulting in direct harm to the environment and/or aquatic life	Stormwater	\$2000 CPO	\$4000 CDO	\$10000 CDO
<p><b>Abbreviations:</b>            Consent Order (CO)            Compliance Order (CPO)            Cease &amp; Desist Order (CDO)            Impound or Remove (IMP)            Notice of Violation (NOV)            Stop Work Order (SWO)</p> <p><sup>1</sup> Fees shall be assessed on a per-violation, per day basis and in accordance with the Airport's Enforcement Action Guide  <sup>2</sup> Prohibited Discharges shall refer to any discharge not entirely composed of stormwater or considered non-allowable or illicit because the discharge is not specifically identified in Chapter 6A as an allowable non-stormwater discharge.</p>				

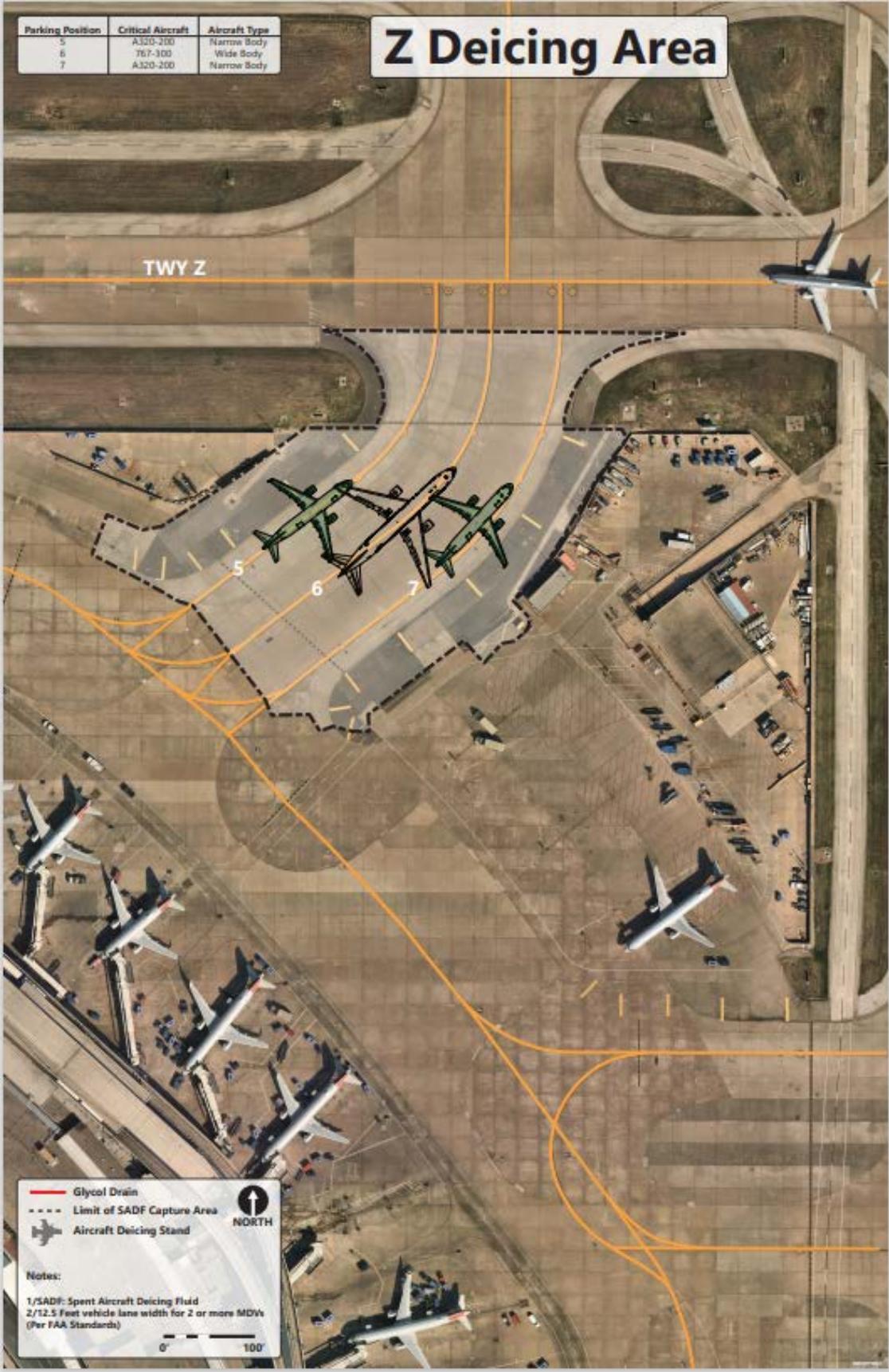
16. DEICING LOCATION MAPS

2021 - 2022 Aircraft Deice Spots Assignments



**Spot assignments subject to change based on operational needs**





Parking Position	Critical Aircraft	Aircraft Type
5	A320-200	Narrow Body
6	767-300	Wide Body
7	A320-200	Narrow Body

# Z Deicing Area

TWY Z

5

6

7

- Glycol Drain
- - - Limit of SADF Capture Area
- Aircraft Deicing Stand

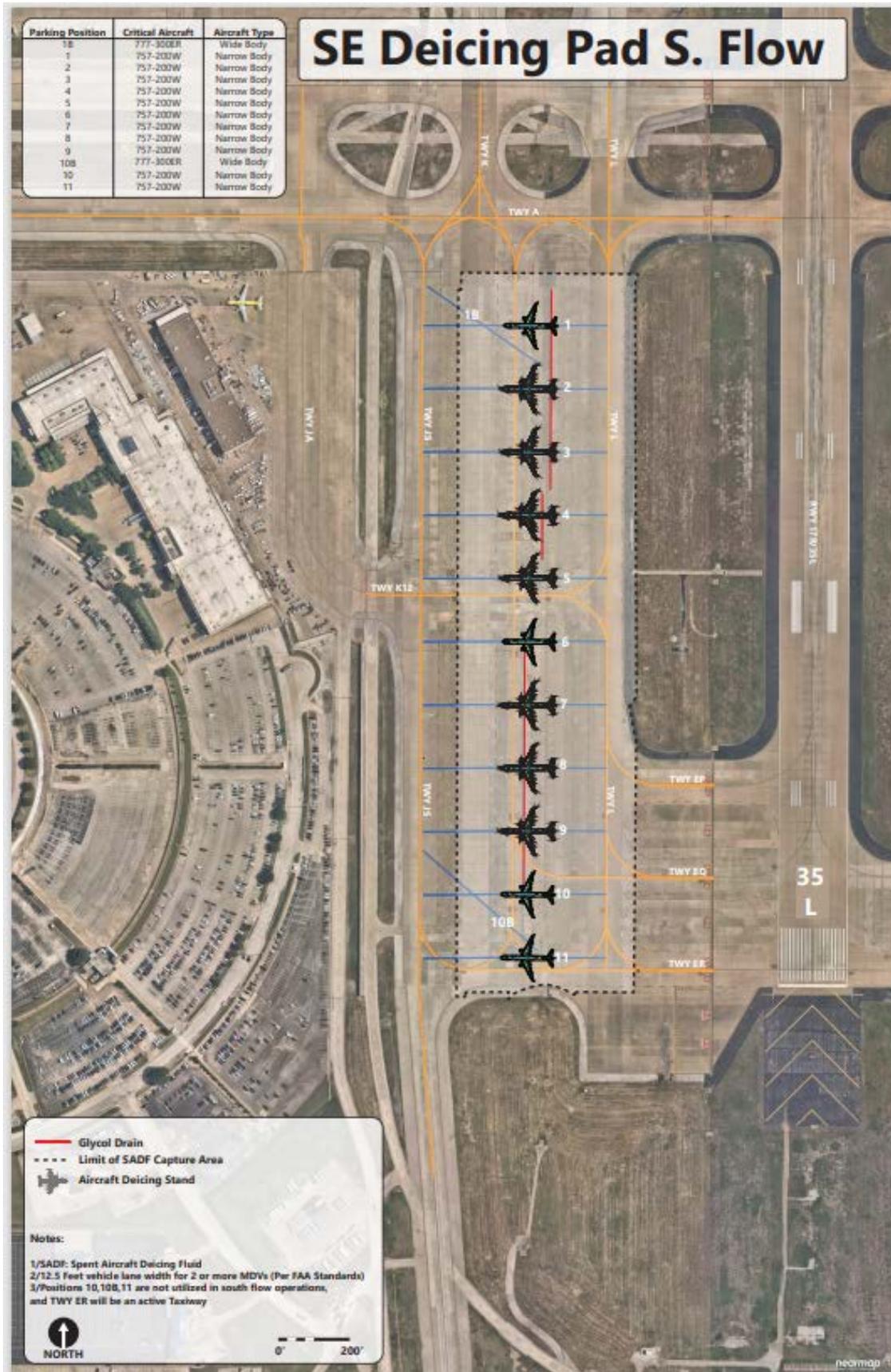
**Notes:**

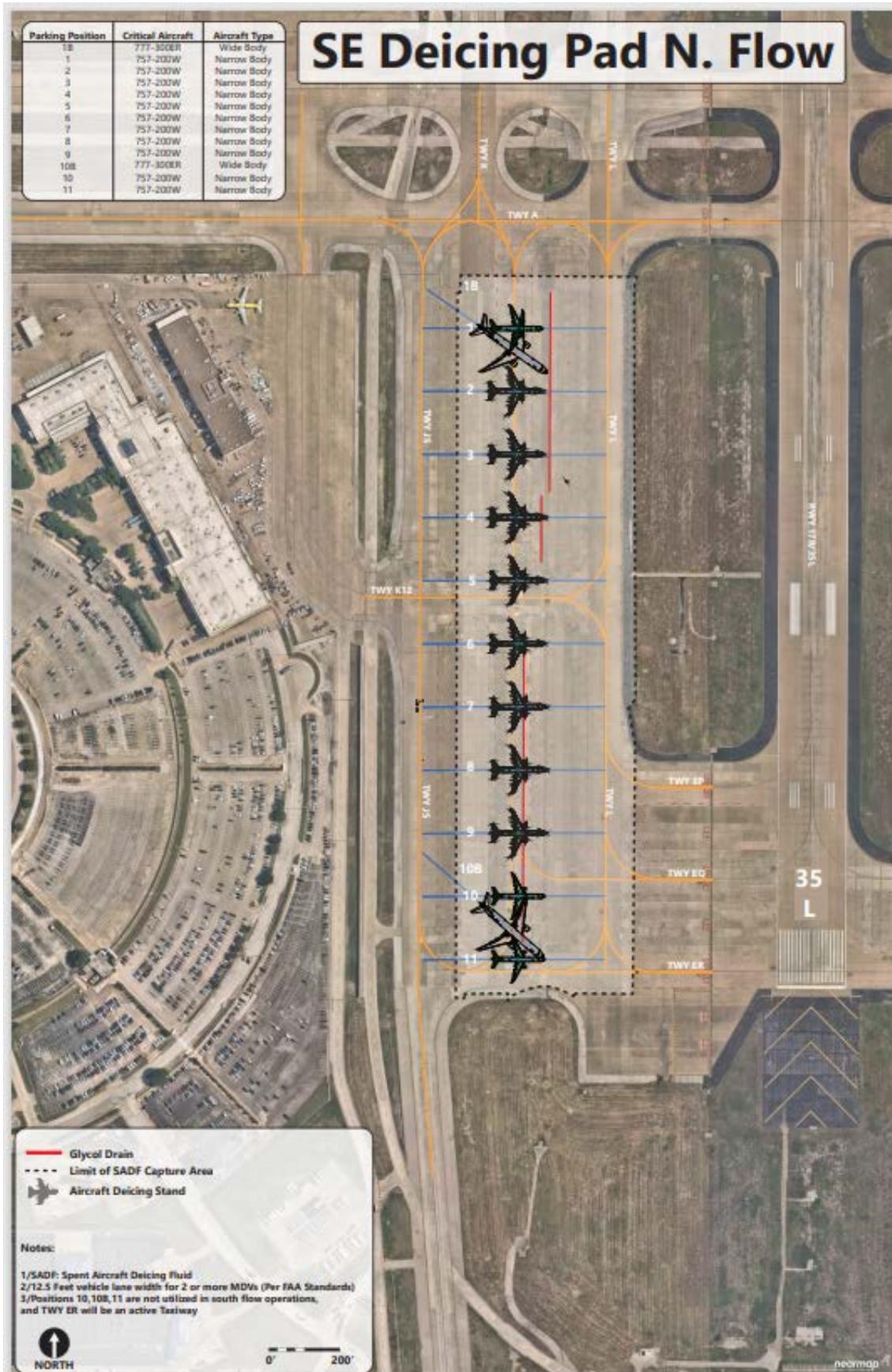
1/SADF: Spent Aircraft Deicing Fluid  
 2/12.5 Feet vehicle lane width for 2 or more MDVs  
 (Per FAA Standards)

0' 100'

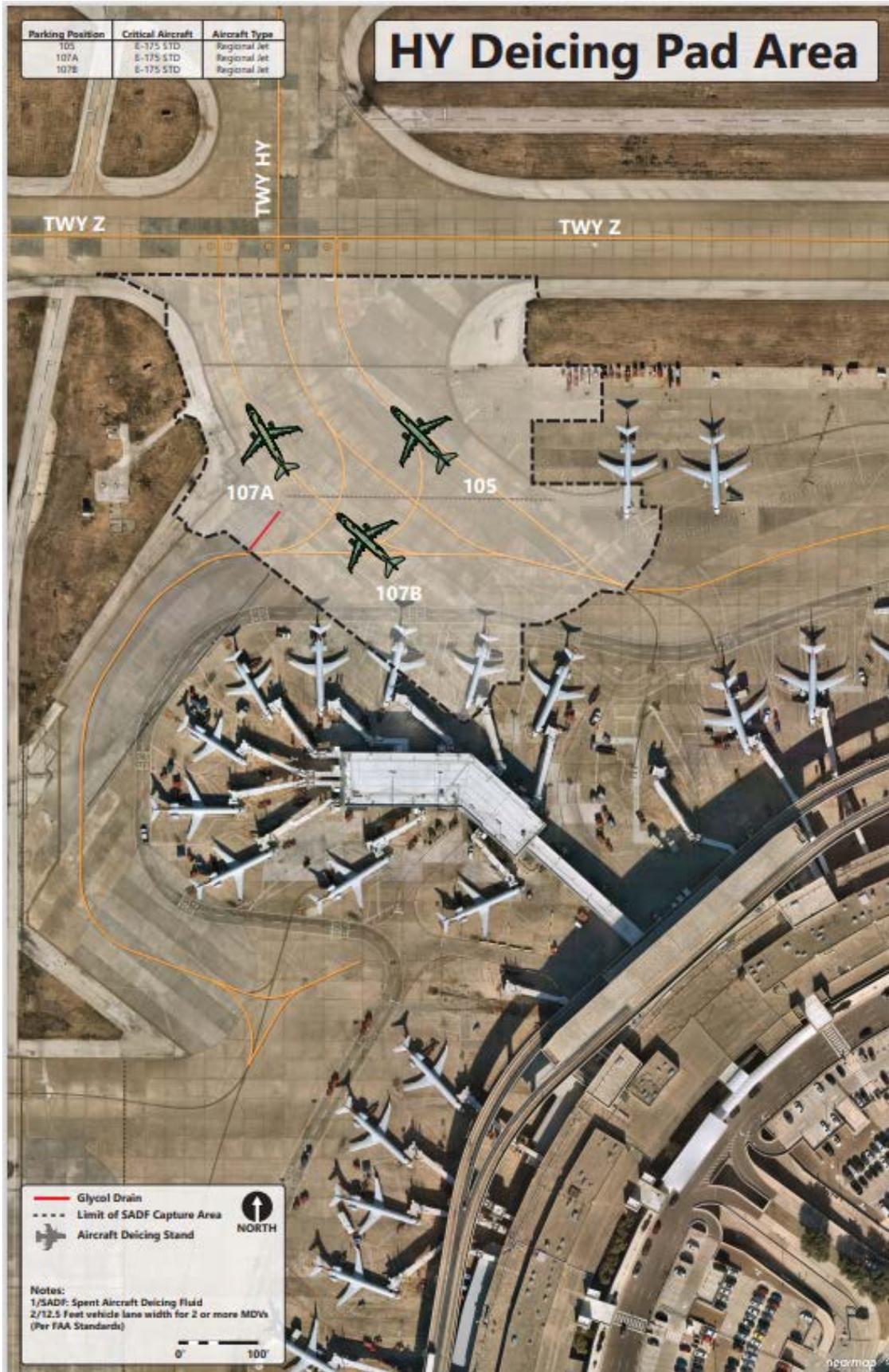
NORTH









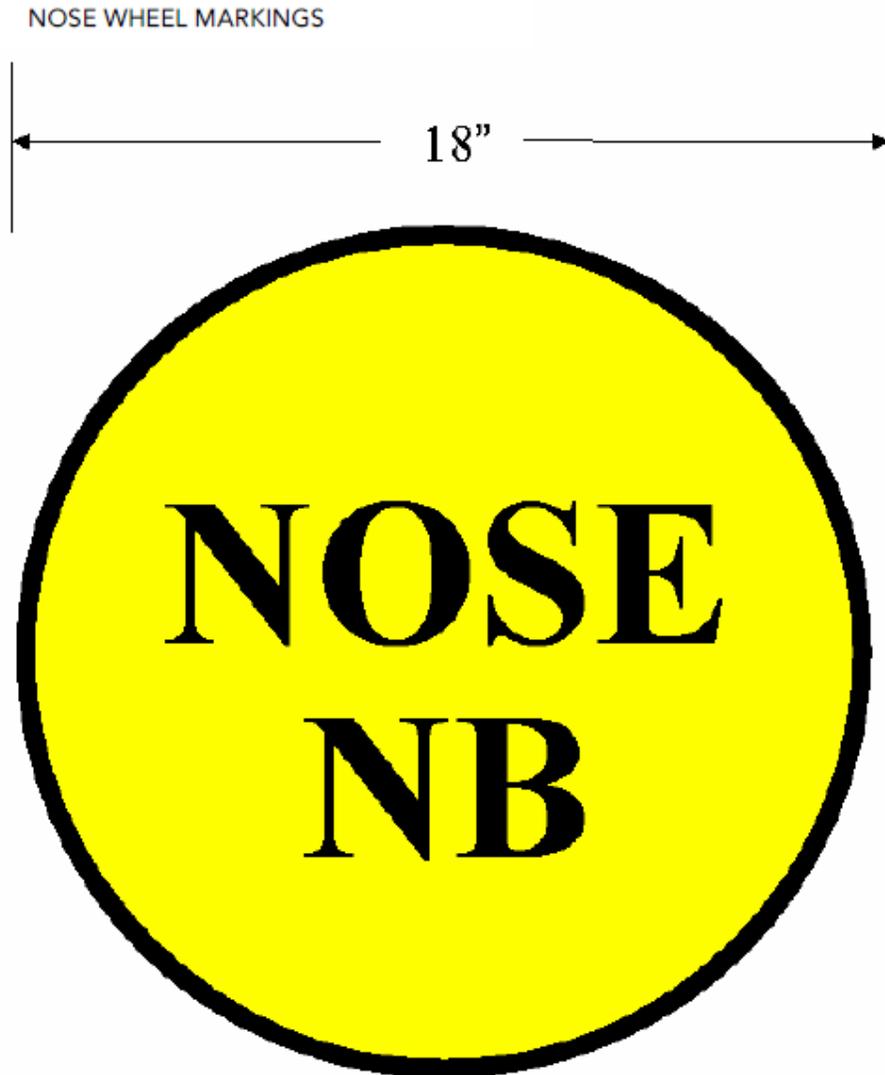






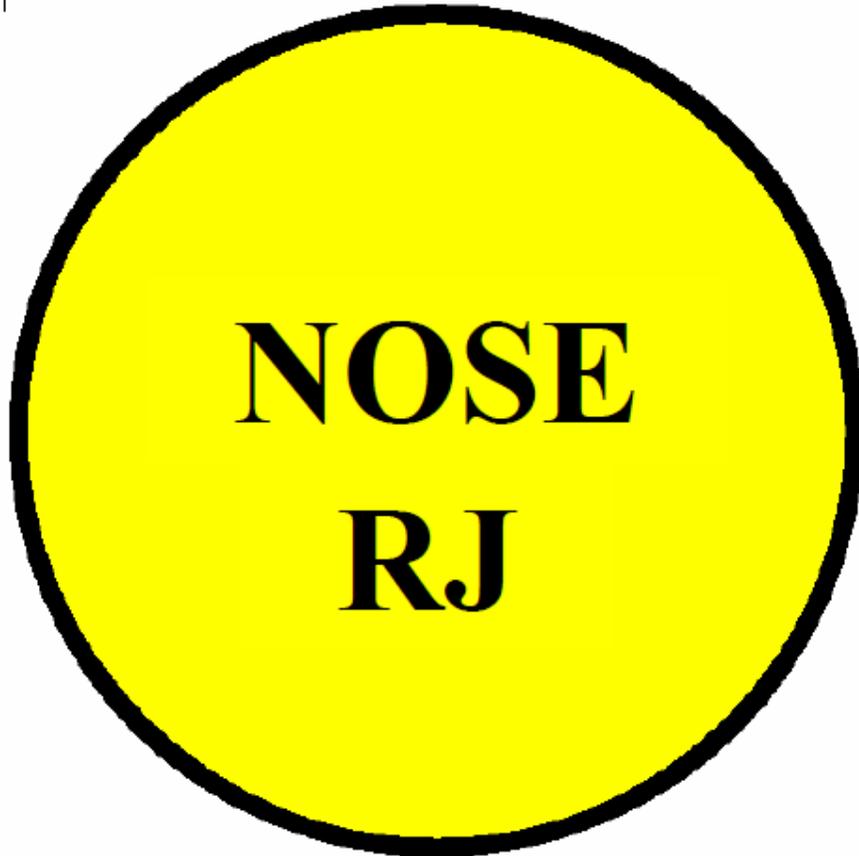
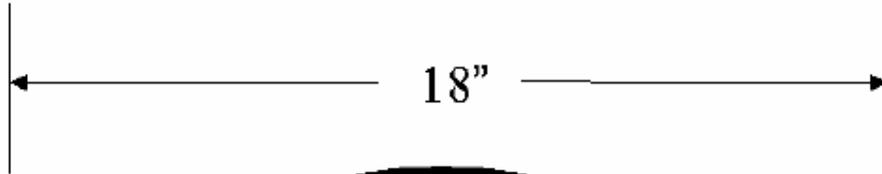


## 17.NOSE WHEEL MARKINGS



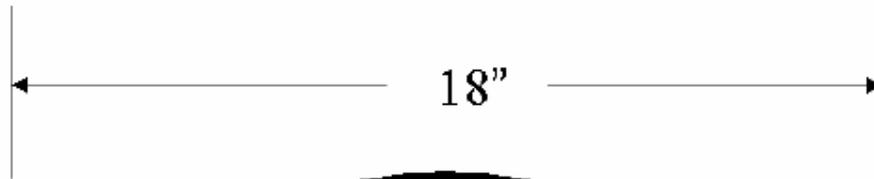
Narrow body aircraft nose gear marking

. NOSE WHEEL MARKINGS



Regional jet nose gear marking

NOSE WHEEL MARKINGS



Wide body aircraft nose gear marking

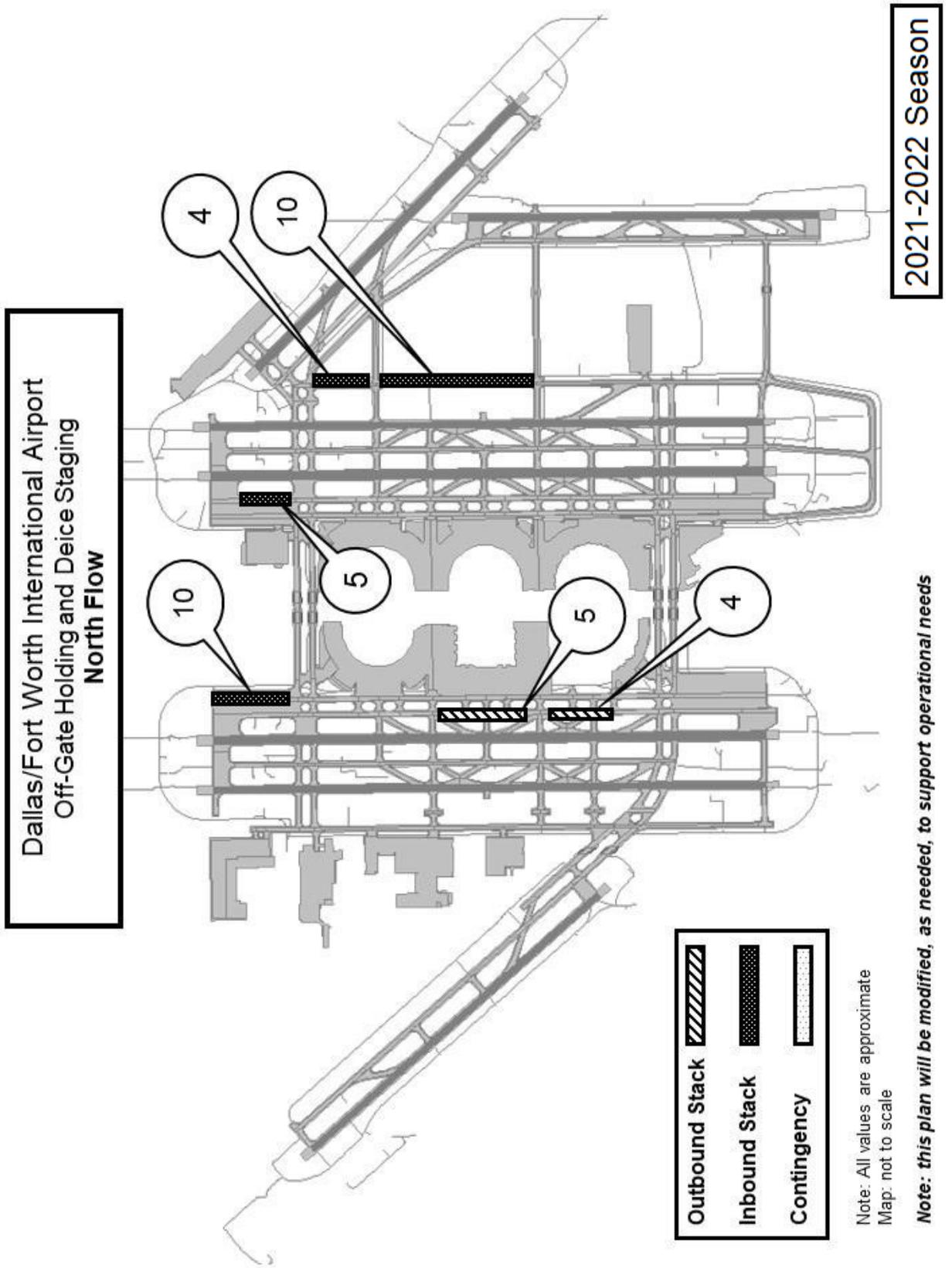
# 18. BLUE LEAD LINES TO NOSE GEAR SPOT MARKINGS



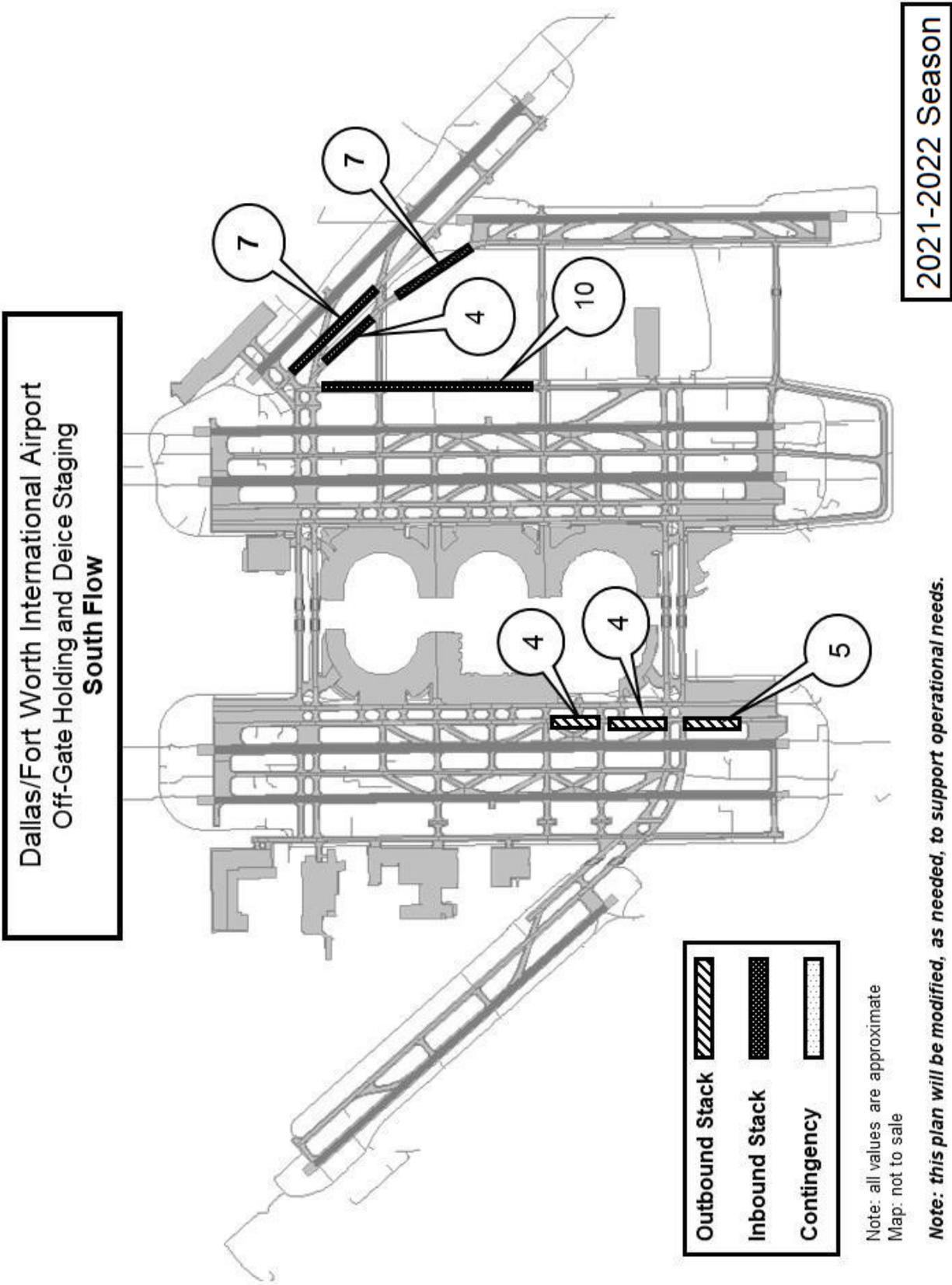




19. OFF RAMP PARKING PLAN – NORTH FLOW



19. OFF RAMP PARKING PLAN – SOUTH FLOW



## 20. NORTHWEST HOLD PAD – ADG V and VI WING TIP CLEARANCE



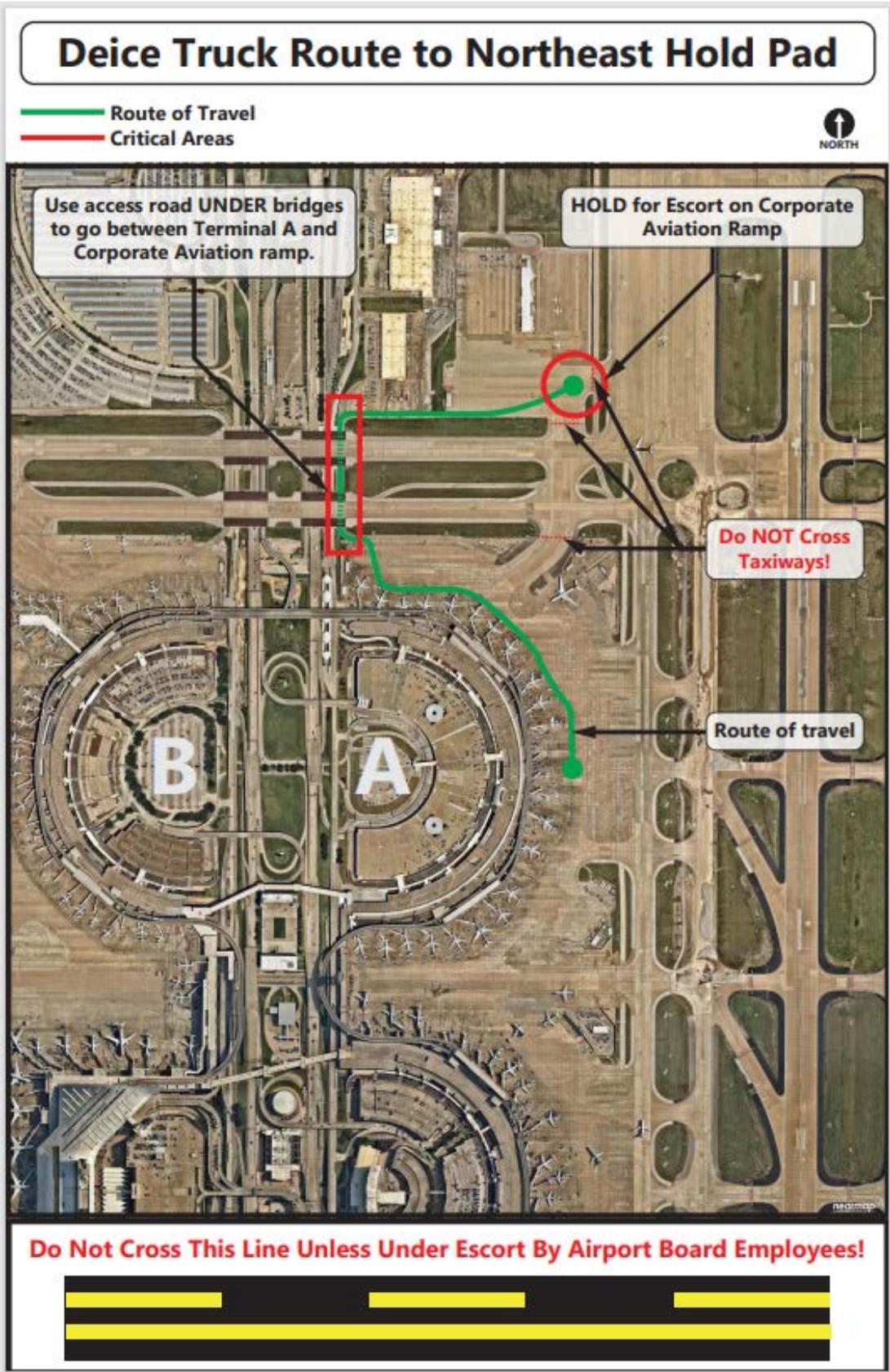
Appendix "A"



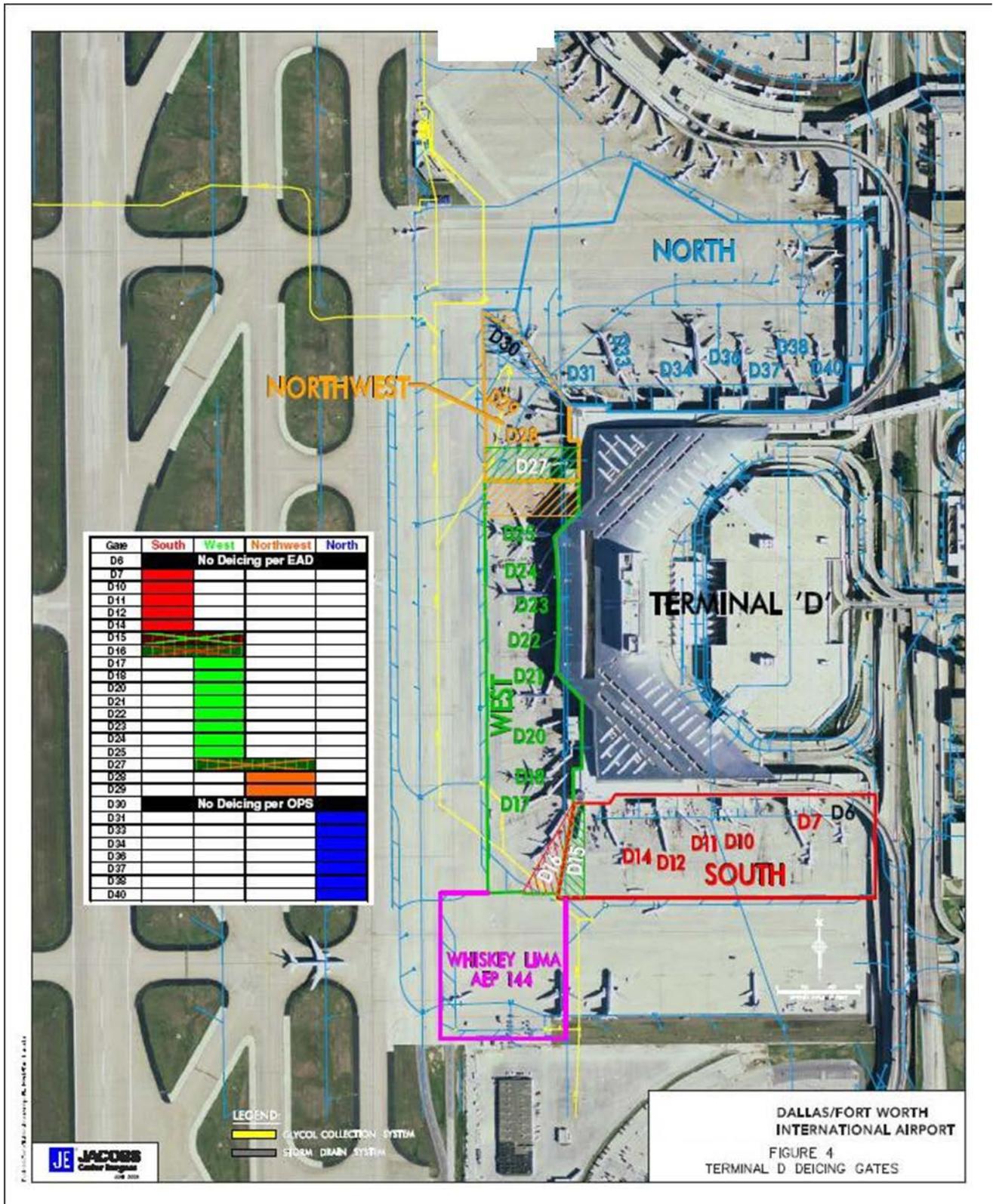
Appendix "A"



Appendix "A"

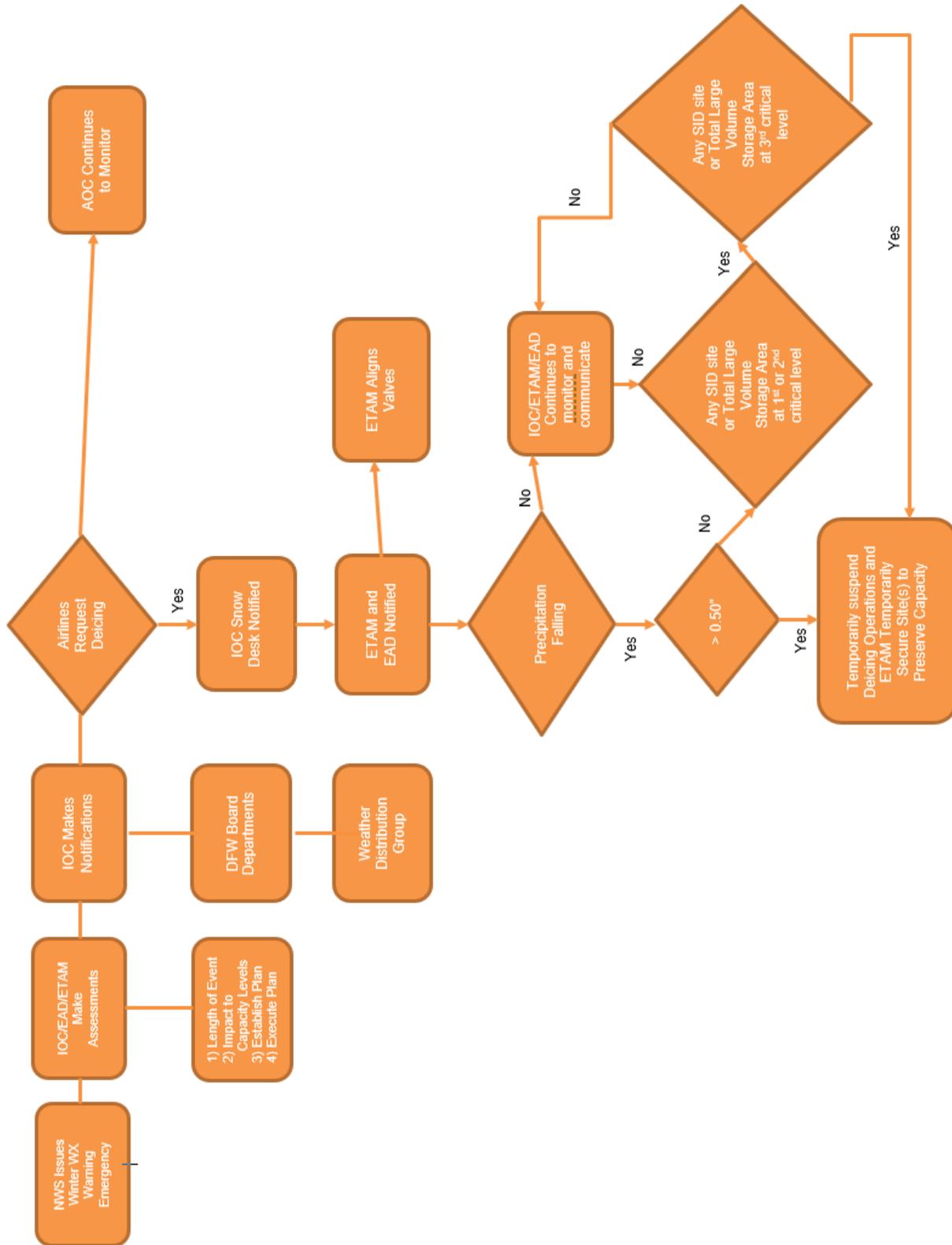


Appendix "B"



Terminal D Deicing Zones (Not in operations 2021-2022 Season)

# Appendix "C" DFW Deicing Management Plan



**DFW Deicing Capacity Alert Level Matrix**

SIDS Location	Capacity (Gallons)	Alert Levels		
		1st	2nd	3rd
		65%	75%	85%
<b>CTA Locations</b>				
Taxiway EKS	30,000	19,500	22,500	25,500
Taxiway EKN	40,000	26,000	30,000	34,000
Taxiway Z	80,000	52,000	60,000	68,000
Taxiway HY	80,000	52,000	60,000	68,000
Taxiway WK	120,000	78,000	90,000	102,000
Northeast Holdpad	120,000	78,000	90,000	102,000
Southeast Holdpad	350,000	227,500	262,500	297,500
Taxiway C/UPS	350,000	227,500	262,500	297,500
Southwest Holdpad	390,000	253,500	292,500	331,500
<b>Spot 144</b>	<b>Note 5</b>	<b>Note 5</b>	<b>Note 5</b>	<b>Note 5</b>
<b>Large Volume Storage Areas</b>				
SouthEast Lagoon	3,100,000	2,015,000	2,325,000	2,635,000
Southwest Lagoon	2,000,000	1,300,000	1,500,000	1,700,000
#1 SADF Retention Pond (East)	2,788,005	1,812,203	2,091,004	2,369,804
#2 SADF Retention Pond (West)	2,788,005	1,812,203	2,091,004	2,369,804
#3 SADF Retention Pond (North)	3,436,664	2,233,832	2,577,498	2,921,164
#4 SADF Retention Pond (South)	3,436,664	2,233,832	2,577,498	2,921,164
Concrete Basin (East)	1,000,000	650,000	750,000	850,000
Concrete Basin (West)	1,000,000	650,000	750,000	850,000
<b>Sub Total</b>	<b>19,549,338</b>	<b>12,707,070</b>	<b>14,662,004</b>	<b>16,616,937</b>
<b>Total</b>	<b>21,109,338</b>	<b>13,721,070</b>	<b>15,832,004</b>	<b>17,942,937</b>

<b>1st Level</b>	OPS and E&TM continue to monitor forecast and provide report out of forecasted conditions to Weather Distribution Group.
------------------	--

<b>2nd Level</b>	Continue to monitor forecast and report out. Convene Snow & Ice Committee. Advise stakeholders of current levels and potential to temporarily suspend deicing operations and secure site(s) - coordinated by E&TM, EAD and OPS.
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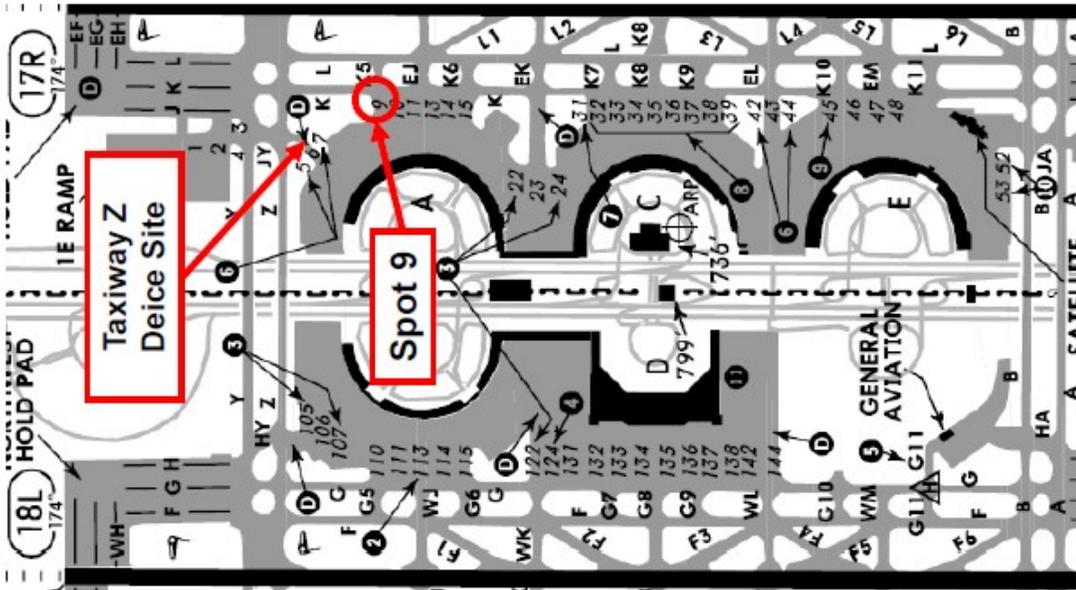
<b>3rd Level</b>	Temporarily suspend deicing operations and secure site(s). Continue to monitor forecast and report out SID Location conditions. Coordinated by E&TM, OPS and EAD.
------------------	---

**Deicing Spot Availability**

	Available Deice Spots	Spot Configuration			Available Spots when Deicing WB	Capacity when Deicing WB
		RJ	NB	WB		
	2		1	1	1	
	1		1		0	
	3		2	1	1	
1)	4		3	1	1	
	2		2		0	
2)	6	3	1	2	2	
4)	9		7	2	9	
	0		0		0	
	10		8	2	10	
3)	1		1		1	
<b>Total</b>	<b>38</b>	<b>3</b>	<b>25</b>	<b>10</b>	<b>25</b>	<b>65.8%</b>

- 1) 3 ATRs or 2 NB and 1 ATR
  - 2) 5 RJs or 1 NB and 4 RJs or 1 WB and 1 RJ
  - 3) Spot 144 has never been used - logistical issues moving aircraft and GSE away from area
  - 4) **The southern-most spot at the Southeast Hold Pad will have to be vacated when the airport is in South Flow in order to allow aircraft taxiing on the perimeter taxiway to transition through the Southeast Hold Pad.**
  - 5) **Spot 144 does not have local deicing storage. Its alert level will follow the alert levels of either the SWPH lagoon or the PTP storage**
- Notes:** Does not include gate deicing at Terminal D  
Taxiway C/UPS ramp does not have assigned nose gear spot markings for deicing operations

## DFW Airport East Side - Single Aircraft Deicing Plan



Primary DFW deice site for single aircraft deicing requests will be the Taxiway Z Site

Coordinate with DFW AOC for request to deice as required by DFW Aircraft Deicing Operations Plan

Prior to departing ramp, notify FAA/ATC of plan to deice aircraft at Taxiway Z deice site and request to enter at spot 9

Follow ATC directions to spot 9

Contact AA Ramp Control on 131.275 prior to arriving at spot 9

Follow AA Ramp control directions to transition AA ramp and exit spot 6 for deicing operations

Upon completion of deicing operations, notify AA Ops

Contact FAA ATC for taxi clearance for departure

DFW Airport October 2018



## Appendix “F”

### Vehicle Access to Southeast Glycol Storage Area (American Airlines/Delta Airlines)



This non-movement area road leads from the 5E Cargo Ramp to the AA and Delta Southeast Glycol Storage area. AA and Delta are the **only** tenants authorized to use this road.

The access road to the AA and Delta Southeast Glycol Storage area continues south past the blast wall. Remain on this road!

**DO NOT TURN LEFT!**



**DO NOT TURN** east towards the taxiways, Southeast Hold Pad, or runways!  
Travel beyond this point requires an escort by Airport Board employees.



**DO NOT TURN** east towards the taxiways, Southeast Hold Pad, or runways!  
Travel beyond this point requires a Board Escort.

**Appendix "G"**

**Northeast Hold Pad Deicing Limits Signage**



Appendix “H”

Dallas/Fort Worth International Airport  
 Estimated Deicing Equipment Use and Deicing Times

Aircraft Type	Non-Precipitation (i.e. frost)		Precipitation (i.e. snow/ice)	
	# Deicing Trucks	Estimated Time	# Deicing Trucks	Estimated Time
Narrow Body	1	15 min	1	20 min
	2	10 min	2	15 min
	2	10-15 min	2	15-20 min
Wide Body	1	15 min	1	20 min
	2	10-12 min	2	15-17 min
	2	30 min	2	45 min
	4	20 min	4-5	25-30 min
	4	20-22 min	4	45-75 min
A380/ B747-8	4	25-30 min	4	45-60 min
	5	20-25 min	5	45-60 min

Notes: Information taken from Aircraft Deicing Planning Working Group meeting on 7/23/2014

Estimated times will vary based on precipitation event/rate of precipitation

A380 aircraft requires at least one truck to be an extended reach-type for tail height – all A380 times based on widebody estimates

## 10.1 Appendix L: Winter Operational Aircraft Deicing Policy

### Environmental Affairs Winter Operations Aircraft Deicing Prioritization Policy Update

In January 2016, the Dallas Fort Worth International Airport (“DFW Airport”) implemented a modified Winter Operations Aircraft Deicing Prioritization Policy to minimize and mitigate the impacts of Spent Aircraft Deicing Fluid (SADF) storage capacity. This policy addresses revisions to the current aircraft deicing pad activation and utilization strategies for incorporation during non- inclement (dry weather defrosting/deicing events) winter weather operations and are intended to better preserve the DFW Airport’s available SADF storage capacity to the maximum extent practicable.

When dry weather aircraft deicing operations are anticipated, DFW Airport will consolidate pad activations to more efficiently manage SADF-impacted stormwater runoff and our overall storage capacity. Consolidation of the deicing pads during non-inclement winter weather will be managed by the Airport Operations Department with coordination from DFW’s Environmental Affairs Department.

According to the DFW Airport’s Aircraft Deice Operations Plan, once aircraft deicing pads are activated and used for aircraft deicing, the deicing pad cannot be secured until either:

- a. The deicing pad has been cleaned and all associated collection system piping has been flushed to remove residual SADF; or
- b. One-quarter inch (0.25”) of rain has fallen after completion of deicing operations in order to remove residual SADF.

Based on the pavement areas associated with DFW Airport’s source isolation deicing pads, up to 1,000,000 gallons of stormwater runoff is needed before pads can be secured and re-aligned to the stormwater collection system. In order to eliminate the need to collect excess stormwater, DFW Airport reserves the right to activate the following procedures to ensure that pad utilization is restricted to specified locations and that system storage capacity is used in an efficient manner. This will ensure that flight operations are not impeded due to lack of available SADF system storage capacity needed to support deicing operations during winter weather events.

1. Deicing/anti-icing activities at DFW are only allowed at areas designated by the Board and are noted in the DFW Aircraft Deicing Plan. No aircraft will be deiced in an area that has not been approved by the Board.

2. During dry weather deicing events in which minimal aircraft deicing operations are anticipated, Airlines and Service Providers will be directed to conduct deicing and anti-icing activities at one of the designated deicing pads as assigned by the IOC to minimize operational impacts and potential impact to the environment. The most common locations are Taxiway C, Taxiway EK, Taxiway WK, the Southeast Deicing/Hold Pad, and the Southwest Deicing/Hold Pad.
3. After the Airlines receive notification from the aircraft pilot(s) of the need to conduct aircraft deicing, the Airlines will contact the DFW IOC and request the utilization of an airport deicing pad, as required per DFW's Aircraft Deicing Plan. The requester must provide the anticipated time the aircraft/s will arrive at the deicing pad and the anticipated number of aircrafts that will be deiced.
4. Airlines and/or Service Providers must ensure all nearby stormwater inlets are protected with an appropriate structural best management practices (BMP) to prevent SADF from entering the stormwater collection system at Taxiway C, Taxiway EK, and Taxiway WK. An acceptable BMP includes a spill mat or berm (e.g. [NewPig urethane/rubber drain blocker](#), or equivalent) which will prevent fluid from entering the storm drain. Note: an absorbent boom, pad, and absorbent material (kitty litter) is not designed to absorb glycol fluid and for the purpose of this procedure is not considered to be an acceptable structural BMP.
5. The aircraft must be aligned with the appropriate nose-wheel marking specified for dry weather deicing. Refer to the Dry Weather Aircraft Parking Positions Map for additional details.
6. At the conclusion of the dry weather deicing activity, the accredited deicing supervisor will contact the IOC and provide the following information:
  - a. Actual end time
  - b. Estimated volume of fluid used upon completion
  - c. Number of aircraft deiced
  - d. Type of BMP utilized to remove residual glycol from deicing pad surfaces.
7. Upon completion of aircraft deicing activities or within 60 minutes of initiating aircraft deicing activities, the Service Provider will be required remove all residual SADF left on airfield pavement surfaces by cleaning impacted areas with the appropriate equipment (i.e. a vacuum truck and scrubber truck).
8. Upon completion of deicing operations, Airport Operations/EAD staff will inspect deicing pad to confirm adequate cleaning of pavement surfaces.
9. The accredited deicing supervisor will be required to complete and submit the Glycol Usage Form indicating the final number of planes deiced and the volume of deicing fluid utilized per aircraft by 12:00pm on the day following the deicing activity.

## APPENDIX J

### WINTER OPERATIONS DEICING PHRASOLOGY

“Site is *aligned*.”

Lights: GREEN

Deicing pad: READY TO CAPTURE DEICING FLUID

Aircraft: STILL TAXIING ACROSS PADS (MOVEMENT AREA)

Deicing: NOT APPROVED

“American is *approved* for deicing” or

“The Southeast Pad is *available* for deicing.”

Lights: GREEN

Deicing pad: READY TO CAPTURE DEICING FLUID

Aircraft: MAY ONLY ENTER TO GET DEICED (NON-MOVEMENT AREA)

Deicing: APPROVED

“The Southeast Pad is *no longer available* for deicing.”

Lights: EITHER GREEN (ALIGNED) OR OFF (NOT ALIGNED)

Deicing pad: EITHER READY OR NOT READY TO CAPTURE DEICING FLUID

Aircraft: BACK TO TAXIING ACROSS PADS (MOVEMENT AREA)

Deicing: NOT APPROVED

Avoid using the terms *open*, *closed*, or *active*. Depending on if you're referring to *deicing activities* or the *pavement*, either can be taken to mean either deicing = **ok** or **not ok**.

## APPENDIX K

### DEICING PAD / "ICE MAN" FREQUENCIES

Northeast Deice Site: 131.47  
Southeast Deice Site: 131.75  
Southwest Deice Site: 130.2  
Taxilane C / UPS: 129.9