Airport Certification Manual

Minneapolis-St. Paul International Airport (MSP)

Signed by:
JOSEPH HARRIS
3CF55FF4490D3455...

Joseph Harris
Vice President,
Management and Operations

Metropolitan Airports Commission

Minneapolis-St. Paul International Airport
4300 Glumack Drive
Suite 3000
St. Paul, MN 55111
Phone: (612) 726-5525
Fax: (612) 726-5527

Original Date: 12/09/04

Revision Date: 11/25/25

FAA Approval:
FAA Airports Date: Dec 02 2025

This page left blank intentionally.

Table of Contents

List of Exhibits iii

Revision Control Sheet v

Distribution List ix

Section 101 – Purpose, Airport Information 101-1

Section 105 – Inspection Authority 105-1

Section 111 – Exemptions 111-1

Section 113 – Deviations 113-1

Section 115 – Falsification, reproduction, or alteration of applications, certificates, reports, or records 115-1

Section 201 – Airport Certification Manual/Revisions 201-1

Section 301 – Records 301-1

Section 303 – Personnel 303-1

Section 305 – Paved Areas 305-1

Section 307 – Unpaved Areas 307-1

Section 309 – Safety Areas 309-1

Section 311 – Marking, Signs, and Lighting 311-1

Section 313 – Snow and Ice Control 313-1

Section 315 – ARFF Index Determination 315-1

Section 317 – ARFF Equipment and Agents 317-1

Section 319 – ARFF Operational Requirements 319-1

FAA Approval: 

FAA Airports Date: Dec 02 2025

Table of Contents

Section 321 – Handling and Storing of Hazardous Substances and Materials 321-1

Section 323 – Traffic and Wind Indicators 323-1

Section 325 – Airport Emergency Plan 325-1

Section 327 – Self-Inspection Program 327-1

Section 329 – Pedestrians and Ground Vehicles 329-1

Section 331 – Obstructions 331-1

Section 333 – Protection of NAVAIDS 333-1

Section 335 – Public Protection 335-1

Section 337 – Wildlife Hazard Management 337-1

Section 339 – Airport Condition Reporting 339-1

Section 341 – Identifying, Marking, and Lighting Construction and Other Unserviceable Areas 341-1

Section 343 – Noncomplying Conditions 343-1

Section 401 – Airport Safety Management System: General Requirements 401-1

Section 402 – Components of Airport Safety Management System 402-1

Section 403 – Airport Safety Management System: Implemenation 403-1

List of Exhibits

Exhibit 101-1 – Reference List

Exhibit 101-2 – Area Chart

Exhibit 303-1 – Organization Chart

Exhibit 305-1 – MSP Movement Area

Exhibit 305-2 – Paved Areas Not Available to Air Carrier Operations

Exhibit 309-1 – Engineered Materials Arresting Systems (EMAS) Maintenance Program

Exhibit 311-1 – Sign Plan

Exhibit 311-2 – Preventive Maintenance Inspection Procedures for PAPIs and Generators

Exhibit 311-3 – Vehicle Service Road Sign Plan

Exhibit 313-1 – Snow and Ice Control Plan

Exhibit 317-1 – ARFF Equipment/Personnel

Exhibit 321-1 – Fuel System Inspection Reports

Exhibit 325-1 – Airport Emergency Plan

Exhibit 327-1 – Daily Self-Inspection Forms

Exhibit 329-1 – MAC Ordinance 127

Exhibit 331-1 – Obstruction Maps

Exhibit 337-1 – Wildlife Hazard Management Plan

Exhibit 339-1 – NOTAM Information

Exhibit 400-1 – Maintenance Corrective Action Form

Exhibit 500-1 – LOA, Airport Emergency Services at Minneapolis-St. Paul International Airport (MSP)

Exhibit 500-2 – LOA, Land and Hold Short Operations (LAHSO) Procedures

Exhibit 500-3 – LOA, Movement/Non-movement Areas

Exhibit 500-4 – LOA, Runway Lighting for CAT II and III Approaches

Exhibit 500-5 – LOA, Surface Movement Guidance Control System Procedures

Exhibit 500-6 – LOA, Minneapolis Airport Traffic Control Tower Contingency Plan - Temporary Tower

Exhibit 500-7 – LOA, Notification Process by the Metropolitan Airports Commission for Surface Area Notices to Airmen

Exhibit 500-8 – LOA, Reporting Airport Movement Area Conditions and Notification

Exhibit 500-9 – LOA, Notice to Airmen (NOTAM) Notification Responsibility

Exhibit 500-10 – LOA, Runway Safety Areas

Exhibit 500-11 – LOA, Minneapolis Airport Traffic Control Tower Contingency Plan - Temporary Tower - Orange Ramp

Exhibit 500-12 – SMS Implementation Plan Approval Letter

Exhibit 500-13 – LOA, Taxiway A and Taxiway B Convergance Taxi and Pushback Procedures

Revision Control Sheet

Revision Number	Revision Date	Revision Contents and/or Remarks
001	07/01/07	Pages iv - vi, Revision Control Sheet, Distribution List
001	07/01/07	Page 11-2, Declared Distances & Displaced Thresholds
001	07/01/07	Page 11-3, safety areas for Taxiways K & L
001	07/01/07	Page 12-3, 12-4, 12-5, Taxiway reflectors
001	07/01/07	Page 15-1, & 15-2, paragraph a, vehicles 16 & 17
001	07/01/07	Page 16-1, items c & e
001	07/01/07	Page 21-1, 21-2, 21-3, 21-4, 21-5, Pedestrian and Ground Vehicles
001	07/01/07	Page 24-1, item 3.a
001	07/01/07	Exhibit 1, Operations Organization Chart
001	08/15/06	Exhibit 7, Sign Plan
001	07/01/07	Exhibit 9, Snow Plan
001	07/01/07	Exhibit 13, Letters of Agreement
002	01/22/09	Exhibit 7, Updated Sign Plan
003	03/31/09	Exhibit 9, Snow Plan: Added information related to continuous monitoring and crew resource management.
004	10/31/10	Complete update of the entire document.
005	01/01/12	Page 21-1, 21-2, 21-3, 21-4, 21-5, 21-6, Pedestrian and Ground Vehicles
006	03/18/13	Pages i, iv, Table of Contents and Revision Control Sheet. Pages v-vi, Elimination of Document Control Sheet (page renumbering). Page 4-1, Falsification, reproduction, or alteration of applications, certificates, reports, or records. Page 8-1, 8-2 (format), CEO, Personnel. Page 21-2, 21-4, Pedestrians and Ground Vehicles.
007	09/15/13	00 -Table of Contents; Sections 9, 11, 12, 15, 16, 20, 24, 26, 27; Exhibits 1, 2, 4, 5-2, 6, 7, 9-1, 9-2, 10, 11, 13-1, 13-2, 14, 16, 17.
008	07/31/14	00 - Table of Contents, Section 21
009	08/01/14	Table of Contents, Section 13, Exhibit 9
010	03/24/2016	Updates to 00 - Table of Contents and Sections 12, 15, 16, 17, 20, and 26 as well as Exhibits 1, 4, 7, 10, 12, 14, and 15. Addition of Exhibit 18.

FAA Approval: Pete Williams

FAA Airports Date: Dec 02 2025

Revision Control Sheet (continued)

Revision Number	Revision Date	Revision Contents and/or Remarks
011	09/01/2016	Changes to Sections 13, 20, 26 and Exhibit 9 to incorporate Runway Condition Codes (RCCs) and other changes to Airport Condition Reporting methods.
012	02/11/2018	Updates to 00 - Table of Contents, Sections 9 and 12 and Revised Movement/Non-Movement Area Letter of Agreement in Exhibit 13.
013	05/11/2018	Updates to 00 - Table of Contents, Distribution List, Section 21, Exhibit 1, Exhibit 5, and Exhibit 9
014	08/31/2018	Updates to Table of Contents, Section 11-Safety Areas, Section 12-Marking, Signs and Lighting, Section 15-ARFF Equipment and Agents, Section 17-Handling and Storing of Hazardous Substances and Materials, Exhibit 10-ARFF Equipment/Personnel, Exhibit 16-Preventive Maintenance Procedures for PAPIs and Generators, Exhibit 17-Engineered Materials Arresting System (EMAS) Maintenance Program, Exhibit 18-Fuel System Inspection Reports and Exhibit 19 - Corrective Action Form
015	11/09/2018	Updates to Section 19- Airport Emergency Plan and Exhibit 11- Airport Emergency Plan
016	06/01/2019	Entire document reformatting, and reorganization. Updates to Section 317- ARFF: Equipment and Agents, Section 321 -Handling and Storing of Hazardous Substances and Materials, Exhibit 303-1-Organization Chart, Exhibit 313-1-Snow Plan, Exhibit 317-1-ARFF Equipment/Personnel, Exhibit 327-1-Daily Self-Inspection Forms, Exhibit 339-1-NOTAM Information
017	09/27/2019	Updates to Distribution List, Section 323-Air Traffic and Wind Direction Indicators, Exhibit 311-2-Preventive Maintenance Inspection Procedures for PAPIs and Generators, Exhibit 313-1-1-Snow Plan, 321-1-Fuel System Inspection Reports, Exhibit 327-1-Self-Inspection Forms
018	10/01/20	Updates to Distribution List, Section C of Section 321 and replacement of pages 4 and 5 of Exhibit 321-1 with new training form.
019	11/20/20	Updates to Distribution List, Section 309, Section 311, Section 321, Section 323, Exhibit 305-2, Exhibit 311-2, and Exhibit 500-1
020	12/23/20	Updates to the Table of Contents and the Sign Plan in Exhibit 311-1.

Revision Control Sheet (continued)

Revision Number	Revision Date	Revision Contents and/or Remarks
020A	06/16/2021	Updates to the Table of Contents, Distribution List, and the Sign Plan in Exhibit 311-1.
021	6/21/2021	Updated Wildlife Hazard Management Plan in Exhibit 337-1.
022	3/25/2022	Updated Table of Contents-Distribution List, Section 303, Section 327, Exhibit 309-1, Exhibit 311-2, and Exhibit 327-1.
023	04/22/2022	Updated Section 311, Section 325, Section 339, Exhibit 325-1 and Exhibit 339-1
024	08/26/2022	Updated Table of Contents, Section 305, Section 311, Exhibit 313-1, Exhibit 321-1, Exhibit 500-1
025	11/18/2022	Updated Table of Contents, Section 301, Section 317, Section 335, Exhibit 101-2, and Exhibit 500-10
026	07/14/2023	Updated Table of Contents, Section 201, Section 311, Section 327, Section 329, and Exhibit 327-1
027	10/06/2023	Updated Table of Contents Distribution List, Section 313 and Exhibit 313-1.
028	10/12/2023	Updated Exhibit 325-1, Airport Emergency Plan - Revision 06
029	12/29/2023	Updated Section 309, Section 317, Section 319, and Exhibit 317-1
030	01/26/2024	Update to the Sign Plan, Exhibit 311-1
031	01/31/2024	Updated Exhibit 325-1, Airport Emergency Plan - Revision 07
032	04/12/2024	Updated Section 337 and Exhibit 337-1, Wildlife Hazard Management Plan
033	05/30/2024	Updated Table of Contents Distribution List, Exhibit 500-6, and added new Exhibit 500-11.
034	07/10/2024	Updated Section 317, Exhibit 317-1, and Exhibit 500-6.
035	09/09/2024	Updated Exhibit 313-1, Snow and Ice Control Plan
036	09/18/2024	Updated Exhibit 325-1, Airport Emergency Plan
037	09/19/2024	Added Sections 401, 403, and Exhibit 500-12
038	11/01/2024	Updated Table of Contents Updated Exhibit 313-1, Snow and Ice Control Plan section 5.7 and Appendices 4, 5, 6, 7, 8, 9, 10, 11 Updated Section 309 page 3 and Exhibit 327-1 page 4
039	11/25/2024	Updated Table of Contents Updated Section 311 Added Exhibit 311-3
040	01/15/2025	Updated Section 317 page 2 and Exhibit 317-1

Revision Control Sheet (continued)

Revision Number	Revision Date	Revision Contents and/or Remarks
041	04/07/2025	Added Exhibit 500-13
042	04/08/2025	Updated Section 317 and Exhibit 317-1
043	04/24/2025	Updated Exhibit 325-1 - Airport Emergency Plan
044	05/01/2025	Updated Section 321 and Exhibit 321-1
045	05/16/2025	Updated Section 301, Section 303, and Section 401, and added Section 402
046	07/08/2025	Updated Section 317, Exhibit 317-1, and Exhibit 500-13
047	09/18/2025	Updated Section 329, Exhibit 305-1, Exhibit 311-1, Exhibit 329-1
048	09/23/2025	Updated Section 309, page 1
049	10/09/2025	Updated Exhibit 313-1, Snow and Ice Control Plan
050	10/23/2025	Updated Exhibit 311-1, Sign Plan Area 5
051	11/12/2025	Updated Exhibit 325-1, Airport Emergency Plan, Section 339, Exhibit 339-1, Section 327, and Exhibit 327-1
052	11/25/2025	Updated Section 317, Exhibit 317-1, and Exhibit 500-3

Distribution List

1. Original ACM
2. FAA Airport Certification Inspector
3. MAC Executive Director/CEO
4. MAC Executive Vice President/COO
5. MAC Vice President Management and Operations
6. MAC Director of Integrated Operations
7. MAC Director of Airport Maintenance and Asset Management
8. MAC Director of Terminal and Landside Operations
9. MAC Assistant Director of Field Maintenance
10. MAC Director of Real Estate and Airline Affairs
11. MAC Emergency Manager
12. MAC Airport Police Department
13. MAC Airport Fire Department
14. MAC SMS Manager
15. MAC Trades Department
16. MAC Field Maintenance Department
17. MAC Electrical Department
18. MAC Paint Department
19. MAC Airport Development Department
20. MAC Airside Operations Department
21. MAC Emergency Communications Department
22. Air Traffic Manager, FAA Air Traffic Control Tower
23. Manager, FAA Airways Facilities
24. Minnesota State Department of Transportation
25. General Manager, Signature Flight Support

Distribution List

26. Station Manager, Air Canada
27. Station Manager, WestJet Airlines
28. Station Manager, American Airlines
29. Station Manager, Southwest Airlines
30. Station Manager, Delta Air Lines
31. Station Manager, FedEx
32. Station Manager, Frontier Airlines
33. Station Manager, Icelandair
34. Station Manager, UNIFI
35. Station Manager, Spirit Airlines
36. Station Manager, Skywest Airlines
37. Station Manager, Endeavor Airlines
38. Station Manager, United Airlines
39. Station Manager, Sun Country Airlines
40. Station Manager, Alaska Airlines
41. Station Manager, DHL
42. Station Manager United Parcel Service
43. 934th Air Force Reserve
44. 133rd Air National Guard
45. Swissport
46. Station Manager, Denver Air Connection
47. Station Manager, Air France/KLM
48. Station Manager, Atlas Air
49. Station Manager, Allegiant Airlines
50. Station Manager, Amazon Air

Distribution List

51. Station Manager, Aer Lingus
52. Station Manager, Discover Airlines

Section 317 - ARFF: Equipment and Agents

A. ARFF equipment required by the airport index determination is housed between two stations. Fire Station # 1 is located north of Terminal 2 and Fire Station # 2 is located west of the ATC Tower. Both stations provide direct access to taxiways, runways, and ramp areas. The stations and required equipment are staffed 24 hours a day, 7 days a week.

B. ARFF equipment consists of the following vehicles.

Crash 14: **2021 Oshkosh Global Striker 3000 w/HRET**

- 3000 gallons water, 420 gallons F3
- 460 lbs. Halotron I, 500 lbs. Purple K Dry Chemical
- HRET roof turret capable of flowing 500 gpm low rate / 1000 gpm high rate of water or 3% foam mixture and piercing nozzle capable of flowing 250 gpm water or 3% foam mixture.
- Hydro-Chem Bumper Turret capable of flowing 625 gpm low rate/ 1250 gpm high rate of water or 3% foam mixture and approximately 17 lbs. per second of dry chemical.
- Hydro-chem hand line capable of flowing at approximately 60 gpm of water or 3% foam mixture and approximately 7 lbs. per second of dry chemical. Halotron I hand line capable of flowing at approximately 7 lbs. per second.
- Portable extinguishers: One 2.5 gallon water fire extinguisher, one 20 lb. Purple K fire extinguisher, and one 13.25 lb Clean Agent fire extinguisher.

Crash 15 : **Oshkosh Global Striker 4500 w/HRET**

- 4500 gallons water, 630 gallons F3.
- 460 lbs. Halotron I, 500 lbs. Purple K Dry Chemical
- HRET roof turret capable of flowing 500 gpm low rate / 1000 gpm high rate of water or 3% foam mixture and piercing nozzle capable of flowing 250 gpm water or 3% foam mixture.
- Hydro-Chem Bumper Turret capable of flowing 625 gpm low rate/ 1250 gpm high rate of water or 3% foam mixture and approximately 17 lbs. per second of dry chemical.
- Hydro-chem hand line capable of flowing at approximately 60 gpm of water or 3% foam mixture and approximately 7 lbs. per second of dry chemical. Halotron I hand line capable of flowing at approximately 7 lbs. per second.
- Portable extinguishers: One 2.5 gallon water fire extinguisher, one 20 lb. Purple K fire extinguisher, and one 13.25 lb Clean Agent fire extinguisher.

Crash 19: 2014 Oshkosh Global Striker 3000 w/HRET

- 3000 gallons water, 420 gallons F3.
- 460 lbs. Halotron I, 500 lbs. Purple K Dry Chemical
- HRET roof turret capable of flowing 500 gpm low rate / 1000 gpm high rate of water or 3% foam mixture and piercing nozzle capable of flowing 250 gpm water or 3% foam mixture.
- Hydro-Chem Bumper Turret capable of flowing 625 gpm low rate/ 1250 gpm high rate of water or 3% foam mixture and approximately 17 lbs. per second of dry chemical.
- Hydro-chem hand line capable of flowing at approximately 60 gpm of water or 3% foam mixture and approximately 7 lbs. per second of dry chemical. Halotron I hand line capable of flowing at approximately 7 lbs. per second.
- Portable extinguishers: One 2.5 gallon water fire extinguisher, one 20 lb. Purple K fire extinguisher, and one 13.25 lb Clean Agent fire extinguisher.

Crash 18: Oshkosh Global Striker 4500 w/HRET

- 4500 gallons water, 630 gallons F3.
- 460 lbs. Halotron I, 500 lbs. Purple K Dry Chemical
- HRET roof turret capable of flowing 500 gpm low rate / 1000 gpm high rate of water or 3% foam mixture and piercing nozzle capable of flowing 250 gpm water or 3% foam mixture.
- Hydro-Chem Bumper Turret capable of flowing 625 gpm low rate/ 1250 gpm high rate of water or 3% foam mixture and approximately 17 lbs. per second of dry chemical.
- Hydro-chem hand line capable of flowing at approximately 60 gpm of water or 3% foam mixture and approximately 7 lbs. per second of dry chemical. Halotron I hand line capable of flowing at approximately 7 lbs. per second.
- Portable extinguishers: One 2.5 gallon water fire extinguisher, one 20 lb. Purple K fire extinguisher, and one 13.25 lb Clean Agent fire extinguisher.

Crash 16: 2022 Oshkosh Global Striker 3000 w/HRET

- 3000 gallons water, 420 gallons F3.
- 460 lbs. Halotron I, 500 lbs. Purple K Dry Chemical
- HRET roof turret capable of flowing 500 gpm low rate / 1000 gpm high rate of water or 3% foam mixture and piercing nozzle capable of flowing 250 gpm water or 3% foam mixture.
- Hydro-Chem Bumper Turret capable of flowing 625 gpm low rate/ 1250 gpm high rate of water or 3% foam mixture and approximately 17 lbs. per second of dry chemical.
- Hydro-chem hand line capable of flowing at approximately 60 gpm of water or 3% foam mixture and approximately 7 lbs. per second of dry chemical. Halotron I hand line capable of flowing at approximately 7 lbs. per second.
- Portable extinguishers: One 2.5 gallon water fire extinguisher, one 20 lb. Purple K fire extinguisher, and one 13.25 lb Clean Agent fire extinguisher.

Crash 17: Oshkosh Global Striker 4500 w/HRET

- 4500 gallons water, 630 gallons F3.
- 460 lbs. Halotron I, 500 lbs. Purple K Dry Chemical
- HRET roof turret capable of flowing 500 gpm low rate / 1000 gpm high rate of water or 3% foam mixture and piercing nozzle capable of flowing 250 gpm water or 3% foam mixture.
- Hydro-Chem Bumper Turret capable of flowing 625 gpm low rate/ 1250 gpm high rate of water or 3% foam mixture and approximately 17 lbs. per second of dry chemical.
- Hydro-chem hand line capable of flowing at approximately 60 gpm of water or 3% foam mixture and approximately 7 lbs. per second of dry chemical. Halotron I hand line capable of flowing at approximately 7 lbs. per second.
- Portable extinguishers: One 2.5 gallon water fire extinguisher, one 20 lb. Purple K fire extinguisher, and one 13.25 lb Clean Agent fire extinguisher.

C. Vehicle capacity and discharge rates are depicted in a table in Exhibit 317-1.

Exhibit 317-1 - ARFF Equipment/Personnel

Vehicle Call Sign	Crash 14	Crash 15	Crash 19	Crash 16	Crash 18	Crash 17
Year	2021	2024	2014	2022	2024	2024
Manufacturer	Oshkosh	Oshkosh	Oshkosh	Oshkosh	Oshkosh	Oshkosh
Model	Global Striker	Global Striker	Global Striker	Global Striker	Global Striker	Global Striker
Condition of Vehicle	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Number of Personnel Assigned to Vehicle	1	1	1	1	1	1
Water capacity (gallons)	3000	4500	3000	3000	4500	4500
Main Turret Discharge rate (gal/min)	1250	1250	1250	1250	1250	1250
F3 capacity (gallons)	420	630	420	420	630	630
Halotron capacity (pounds)	460	460	460	460	460	460
Dry Chemical capacity (pounds)	500	500	500	500	500	500
Water Fire Extinguisher	1 - 2.5 gal	1 - 2.5 gal	1 - 2.5 gal	1 - 2.5 gal	1 - 2.5 gal	1 - 2.5 gal
Purple K Fire Extinguisher	1 - 20 lb	1 - 20 lb	1 - 20 lb	1 - 20 lb	1 - 20 lb	1 - 20 lb
Clean Agent Fire Extinguisher	1 - 13.25 lb	1 - 13.25 lb	1 - 13.25 lb	1 - 13.25 lb	1 - 13.25 lb	1 - 13.25 lb
Additional Info	w/HRET (Snozzle)	w/HRET (Snozzle)	w/HRET (Snozzle)	w/HRET (Snozzle)	w/HRET (Snozzle)	w/HRET (Snozzle)

This page left blank intentionally

Exhibit 500-3 Movement/Non-Movement Areas

Movement/Non-Movement Area Letter of Agreement

Federal Aviation Administration, Minneapolis Airport Traffic Control Tower (MSP), Minneapolis Terminal Radar Approach Control (M98), Minneapolis Technical Operations (MSP TECHOPS), and Metropolitan Airports Commission (MAC)

Letter of Agreement (Effective: December 1, 2025)

Subject: Movement/Non-Movement Areas

1. Purpose:
This Letter of Agreement defines jurisdictional responsibilities between Minneapolis Airport Traffic Control Tower (MSP), Minneapolis Terminal Radar Approach Control (M98), Minneapolis Technical Operations (MSP Tech Ops), and the Metropolitan Airports Commission (MAC) for operating on Minneapolis-St. Paul International Airport.

2. Cancellation:
Cancels the Movement/Non-Movement Areas Letter of Agreement dated August 31, 2020.

3. Responsibilities:

a. Definitions:

1) **Movement Area:** All runways and taxiways as depicted in the movement area map, requiring aircraft to make radio contact with MSP for clearance to enter and operate in.

2) **Non-Movement Area:** Includes parking, cargo areas, and vehicle service roads. No radio contact with MSP required, delineated per FAA standards.

3) **Open:** A surface that is usable for aircraft operations.

4) **Closed:** A surface that is unusable for aircraft operations except when coordinated in accordance with paragraph 3.a.5.a)-c).

5) The following definitions only apply when used for coordinating the status of closed Movement areas or closed Non-Movement areas:
   a) Unrestricted – Aircraft may taxi on, taxi across, or park.
   Example _"*"Runway 4/22 closed, unrestricted."*
   b) Taxi – Aircraft may taxi on or taxi across.
   Example – "Runway 30L/12R closed, taxi approved."
   c) Crossing – Aircraft may taxi across.
   MAC will advise MSP where crossing is approved.

6) **Runway Safety Area (RSA):** A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft in the event of an excursion, overshoot, or undershoot from the runway.

7) **Taxiway Dual-Purpose Lighting:** Special lighting installed to allow runway 4/22 to be used for taxi purposes. This lighting consists of unidirectional red stop bar lights, in-pavement runway guard lights, elevated stop bar lights, elevated taxiway lights, and green centerline lead in lights. The tower lighting panel has been programmed to turn off

all taxiway lighting when the runway lights are energized.

b. Movement Area Jurisdiction Excluding Runways

1. **MSP Responsibilities:**

a) Authority over all open airport movement areas and RSAs.
b) Provides advisories related to aircraft movement in non-movement areas, which are advisory only and do not imply control responsibility.

2. **MAC Responsibilities:**

a) Airside Operations has authority over all closed movement areas and associated RSAs.
b) Must advise MSP of non-runway surface area openings and closings on the appropriate ground control frequency.
c) Must advise MSP when movement areas excluding runways are available for use using the terms defined in paragraph 3.a.5.a)-c).
d) Must limit access to movement on or across all taxiways only to those pedestrians and vehicle operators with an operational need.
e) Must require all vehicle operators to yield the right-of-way to aircraft at all times.
f) Must require all authorized vehicle operators, unless escorted, to monitor the appropriate ground control frequency when operating on non-runway movement areas and the appropriate local control frequency when on runways or in RSAs.
g) Must maintain appropriate vehicle service roads (VSR) and VSR signage to prevent unauthorized entry into the movement area.
h) Must require all vehicle operators to obey all VSR signals, flag personnel, and signage.
i) Must require all vehicle operators to come to a complete stop prior to crossing taxiways on VSRs.
j) Must require all vehicle operators to follow all rules and regulations published in MAC *Air Operations Area Operating Ordinance*, (current version).
k) Must require all vehicle operators to obtain ATC clearance prior to entering protected ILS critical areas when weather conditions are less than a ceiling of 800 feet or visibility less than 2 miles for ILS critical area protection.

3. **MSP Tech Ops:**

a) Must coordinate all movement area operations with the MAC.

c. Runway Jurisdiction

1. **MSP Responsibilities:**

a) Activates taxiway Dual-Purpose Lighting for taxi operations on runway 4/22.
b) Must not cross a taxiing general aviation, aircraft under tow, or a repositioning aircraft at the intersection of runway 12R/30L on runway 4/22 unless escorted by MAC.

c) Must not cross any aircraft at the intersection of runway 12R/30L and runway 4/22 unless an operational necessity exists.
d) Notify MAC Airside Operations that a vehicle was observed entering the runway surface without prior coordination or authorization from ATC. MAC Airside Operations will close the runway as they deem appropriate. This applies only to unauthorized vehicles that are not in communication with ATC and are not approved to operate in the movement area.

2. **MAC Responsibilities:**

a) Retains sole authority to officially open or close a runway.
b) Must advise MSP of runway openings and closings on the appropriate local control frequency.
c) Must require all vehicle operators to obtain clearance from MSP, on the appropriate local control frequency, prior to entering or crossing any open runway.
d) Must limit access to movement on or across all runways only to those pedestrians and vehicle operators with an operational need.
e) When MAC closes a runway, that surface is released to MAC for movement area access purposes.
f) Must advise MSP when closed runways are available for use using the terms defined in paragraph 3.a.5.a)-c).
g) Any portion of a closed runway that has been made available to MSP for aircraft ground movement (taxiing) purposes, i.e., crossing point, must be treated as a taxiway in that all vehicles (other than vehicles operated by a driver with a MAC-issued Runway or Taxiway Driver's License) must contact MSP to cross or access those portions of the closed runway.
h) Is responsible for placing barricades and/or lighted mobile runway closed "X" signs for long term closures.
i) Immediately respond to close and inspect surface for FOD when ATC notifies MAC that the condition in 3.c.1.d was met.

d. Runway Safety Area Jurisdiction and Access

1) The MAC retains sole authority to approve access to any unpaved RSA.
2) The MAC must limit access to movement on or across all unpaved RSAs, only to those pedestrians and vehicle operators with an operational need.
3) MAC Airside Operations will normally provide MSP with 30 minutes lead time prior to allowing access to an unpaved RSA. MAC Airside Operations must also provide MSP with the identity of who will be accessing the unpaved RSA and an estimate of the length of time they will be in the area.
4) MAC Airside Operations must initiate the RSA coordination process by coordinating with the MSP Supervisor.
5) All questions regarding the RSA should be directed to MAC Airside Operations.
6) The MAC must require all vehicle operators to obtain clearance from MSP on the appropriate local control frequency prior to entering any RSA of an open runway.
7) The MAC must require all vehicle operators to advise MSP on the appropriate local control frequency when they are clear of any RSA of an open runway.

8) When a movement area is closed within an active RSA, MAC must use coordination and notification procedures established herein if pedestrians and vehicle operators have need to access the RSA on this closed movement area.

e. Foreign Object Debris (FOD):

1) Upon receiving a report of FOD on a runway or taxiway, MSP must immediately suspend operations to the affected surface and notify MAC.
2) MAC will notify MSP on the appropriate frequency that the affected runway or taxiway surface is closed, inspect the affected runway or taxiway, then notify MSP on the appropriate frequency when the runway or taxiway is open.

f. Runway Inspections

1) When a runway inspection is required without delay, the MAC must request a Critical Runway Inspection. Immediately upon receipt of this request, MSP must stop all departures that have not begun take-off roll on that runway. MSP must allow only those aircraft within a two-mile final to land on that runway. If, in the judgment of MSP, safety would be compromised by issuing go-around instructions to an aircraft more than two miles from the airport, the aircraft may be cleared to land on that runway. All other aircraft must be held until the MAC can provide further information on the status of the runway. The MAC must only request a Critical Runway Inspection under extreme and/or unusual circumstances.
2) When a runway inspection is required with minimal delay, the MAC must request a Priority Runway Inspection. MSP must hold all departures which have not been cleared for take-off on that runway and normally must not allow any aircraft other than those inside of the final approach fix to land on that runway. All other aircraft in the landing and departure sequence must be held until the MAC provides information on the status of the runway.
3) When normal delays can be accepted prior to a runway inspection, the MAC must request a Runway Inspection.

g. Surface Closure Coordination

1) MAC Airside Operations will normally provide MSP with 30 minutes lead time prior to closing a movement area surface. MAC Airside Operations must also provide MSP with an estimate of the length of the closure during the coordination of the closure.
2) MAC Airside Operations should always initiate the runway closure coordination process by establishing a conference call involving the MSP Supervisor/Traffic Management Unit (TMU) and M98 Supervisor. All other movement area surfaces must be coordinated with the MSP Supervisor.
3) The MSP supervisor must advise MAC Airside Operations as soon as possible when a runway configuration change is anticipated.
4) MAC Airside Operations must advise MSP at least ten minutes prior to the estimated reopening time if they cannot return the movement area surface on time and provide MSP with a new time estimate for opening the movement area surface.
5) All questions regarding the return of the movement area surface should be directed to MAC Airside Operations.
6) MSP must not allow an aircraft to taxi on or across a closed movement area surface unless approved by MAC Airside Operations.

7) As stated in paragraphs 3.b.2.b and 3.c.2.b, the official status of a surface area must be stated by MAC Operations on local control or ground control frequencies.
8) Runway 4/22 Taxiway Dual-Purpose Lighting coordination - From Taxiway to Runway:
    a. MSP must advise MAC no less than 30 minutes in advance when the use of runway 4/22 for landing/departing operations is anticipated.
    b. MAC must remove the lighted X's and inspect all runway lighting to ensure it is working properly, and Taxiway Dual-Purpose Lighting is turned off.
    c. MAC will reopen the runway and cancel appropriate NOTAMs
9) Runway 4/22 Taxiway Dual-Purpose Lighting coordination - From Runway to Taxiway:
    a. MSP must advise MAC when the use of runway 4/22 for landing/departing operations is no longer needed.
    b. MAC will issue appropriate NOTAMs designating the runway for taxi use.
    c. MAC will close the runway.
    d. MAC must reposition the lighted X's and inspect all Taxiway Dual – Purpose Lighting to ensure it is working properly, and runway lighting is turned off.

h. Snow Removal Operations

1) **Runway Crossings:**
    a. The MAC must limit all crossing of active runways during snow/ice operations to only those vehicles directly involved in removal of snow/ice from the airport movement area, or for emergency response.
    b. During snow/ice control operations, there are times when plows are required to cross active runways. MAC may request a Priority Runway Crossing. MSP will normally give priority to the plowing operation and must hold all ground movements except those already cleared for take-off and for arrival aircraft inside of the final approach fix. Only those vehicles working as a single unit may cross the runway on a priority request. All other vehicles must make their own requests to cross active runways.

2) **Return of Closed Runways:**
    a. The MAC will normally return a closed runway with all priority taxiways opened. If MAC is unable to return any of the priority taxiways, they must notify MSP and report which priority taxiways are not open.

3) **Braking Action reports**:
    a. MSP must solicit pilot reports or runway braking action from the first aircraft arrival after a runway reopening and report to Airside Operations if it is less than good.
    b. MSP must solicit pilot reports or runway braking action and notify MAC Airside Operations when runway surface braking action conditions have deteriorated or improved from their previously reported condition.
    c. MSP must report to the MAC Airside Operations, pilot reports or observations of any conditions that may affect the safe use of the movement area.
    d. Upon receiving a pilot report of "NIL" braking, MSP must immediately suspend operations to the affected surface.

i. Field Conditions and Runway Condition Codes:

1) MAC Airside Operations must update the Field Conditions (FICON), and Runway Condition Codes (RwyCCs) as needed to provide timely, accurate field conditions. FICONs and RwyCCs will be disseminated via the FAA Digital NOTAM System.
2) Runway Condition Codes: MAC Airside Operations must notify MSP when the RwyCC for any third of an active runway is 5 or less. Notification must include the runway, and the RwyCC for each third of the runway in order of touchdown, mid-field, and rollout.
3) MSP must notify MAC Airside Operations upon receiving any reports from the users regarding field conditions, i.e., snow piles, windrows, etc.

j. Taxiway Design Group VI Aircraft Movements:

1) Per the Dakota-Minnesota ADO, in the areas of the no-taxi islands, there are not sufficient safety separation standards for a 180 degree turn for TDG6. It is also noted that only Taxiway A allows for taxiing TDG 6 aircraft (even with restrictions). Therefore, MSP will not conduct 180 degree turns for TDG6 aircraft in either the PQCD or ABCD no-taxi island areas, and these areas are noted in exhibits utilized by MAC and MSP to supplement the MSP Movement/Non-Movement Area LOA.

4. Exhibits

Several exhibits exist providing supplemental information for operational use for aircraft movements but are maintained separately from this LOA. These exhibits are summarized below:

a. Movement Area Map
b. Operational Restrictions Maps
c. 180 degree turns for TDG6 Aircraft

5. Deviations

Deviations from the procedures outlined in this Letter of Agreement must be approved only after coordination between the following entities:

a. Minneapolis Airport Traffic Control Tower (MSP)
b. Metropolitan Airports Commission (MAC)
c. Minneapolis Terminal Radar Approach Control
d. Minneapolis Technical Operations

Signatories

Signed by:
JOSEPH HARRIS
3CF5FF1199D3455...
Vice President, Management & Operations
Metropolitan Airports Commission

DocuSigned by:
Maggie Ronken
8041C4C02634483...
Maggie Ronken
Air Traffic Manager
Minneapolis Airport Traffic Control Tower

Signed by:
Daniel Picardo
0637BFFE1066454...
Daniel Picardo
Manager, Minneapolis Central Group
FAA Technical Operations

Signed by:
James Ipsen
6B8B687E6F544E8...
James Ipsen
Air Traffic Manager (A)
Minneapolis Terminal Radar Approach Control