Airport Certification Manual

Minneapolis-St. Paul International Airport (MSP)



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Metropolitan Airports Commission

Minneapolis-St. Paul International Airport

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

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

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

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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

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Revision Control Sheet

Revision Number	Revision <u>Date</u>	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.		

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Revision Control Sheet (continued)

Revision Number	Revision <u>Date</u>	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.	

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Revision Control Sheet (continued)

Revision Number	Revision <u>Date</u>	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		

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Revision	Revision	
Number	<u>Date</u>	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

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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

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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

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Distribution List

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

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Section 309 - Safety Areas

Safety Area Dimensions

With the exception of runway 17/35, all runways were constructed prior to February 18, 1970. Runway 17/35 was completed in August of 2005. The safety areas associated with runways and taxiways conform as a minimum to those in existence as of December 31, 1987. Safety areas will be upgraded to current dimensions acceptable to the Administrator when new construction is undertaken.

Current safety areas for surfaces used by air carrier aircraft are listed below:

Runway Safety Areas:

Location	Width	Length at	Distance to	Length of	Width of
		Approach End	EMAS	EMAS	EMAS
Runway 04	500°	1000'			
Runway 12L	500'	1000'			
Runway 12R	500'	1000'			
Runway 22	500'	1000'			
Runway 30L	500'	785'	545'	247'	227'
Runway 30R	500'	620'			
Runway 17	500'	1000'			
Runway 35	500'	1000'			

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Declared Distances / Displaced Thresholds:

Runway 12L declared distance implemented to increase departure end safety area to 1000'

Location	TORA	TODA	ASDA	LDA	Displaced
					Threshold
Runway 04	11006'	11006'	11006'	9456'	1550'
Runway 12L	8200'	8200'	7620'	7620°	
Runway 12R	10000'	10000'	10000'	10000'	
Runway 22	11006'	11006'	11006'	10006'	1000'
Runway 30L	10000'	10000'	10000'	10000'	
Runway 30R	8200'	8200'	8200'	8000'	200'
Runway 17	8000'	8000'	8000'	8000'	
Runway 35	8000'	8000'	8000'	8000'	

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Taxiway Safety Areas:

Taxiway	Location	Width	Design Aircraft
А	Taxiway A1 to Taxiway A10	214 feet	V
В	Taxiway A1 to Taxiway A3	135 feet	B757-2W/3W
В	Taxiway A3 to Taxiway D	171 feet	IV
В	Taxiway D to Taxiway A10	214 feet	V
С	Taxiway S to Taxiway C10	214 feet	V
D	Taxiway K to Taxiway P	214 feet	V
G	Runway 12L/30R to Taxiway C	214 feet	V
Н	Taxiway C to Taxiway Q	214 feet	V
K	Taxiway K1 to Taxiway K10	214 feet	V
J	Taxiway M to Taxiway Q	118 feet	III
L	Taxiway L3 to Taxiway L10	214 feet	V
M	Taxiway S to Runway 12L/30R	214 feet	V
N	Taxiway S to Taxiway L	214 feet	V
Р	Taxiway P1 to Taxiway P10	214 feet	V
Q	Taxiway P2 to Taxiway P3	118 feet	III
Q	Taxiway P3 to Taxiway D	135 feet	B757-2W/3W
Q	Taxiway D to Taxiway M	214 feet	V
Q	Taxiway M to Taxiway P10	171 feet	IV
R	Taxiway R10 to Runway 4/22	214 feet	V
S	Taxiway D to Taxiway K	214 feet	V
W	Taxiway W1 to Taxiway W10	214 feet	V
Y	Taxiway K to Taxiway W	214 feet	V
Z	Taxiway K to Taxiway W	214 feet	V

Taxilane Safety Areas:

Taxilane	Location	Width	Design Aircraft
S	Taxilane S from Taxiway D to Taxiway S4	214 feet	V
S	Taxilane S south of Taxiway S4	118 feet	III
Т	Taxiway M to Taxiway Y	214 feet	V

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<u>COMPLIANCE</u>: The runway, taxiway, and taxilane safety areas are inspected in accordance with Section 327-Self Inspection Program of this manual.

NOTAMS, as required, will be issued in accordance with Section 339 Airport Condition Reporting.

Required Conditions of Safety Areas

- 1. Each safety area shall be cleared and graded, and shall be maintained free to potentially hazardous ruts, humps, depressions, or other surface variations.
- 2. Each safety area shall be drained by grading and storm sewers to prevent water accumulation.
- 3. Each safety area shall be capable under dry conditions of supporting aircraft rescue and fire fighting equipment and the occasional passage of aircraft without causing major damage. Manhole or duct access covers are constructed from steel of sufficient thickness and strength to support equipment and aircraft.
- 4. No object shall be located in any safety area, except for objects that need to be located in the safety area because of their function. These objects shall be constructed; to the extent practical, on frangible mounted structures of the lowest practical height and maintained so the frangible point is no higher than 3 inches above grade.
- 5. Safety areas shall conform to dimensions acceptable to the FAA if any runways or taxiways are constructed, reconstructed, or extended.
- 6. Engineered Materials Arresting Systems (EMAS) at Minneapolis-Saint Paul International Airport (MSP) is installed and will be maintained per <u>EAA Advisory Circular 150/5220-22, current edition, Engineered Materials Arresting System (EMAS)</u>

 for <u>Aircraft Overruns</u>, standards. The EMAS is constructed on a surface capable of supporting the passage of critical design aircraft and fully loaded ARFF vehicles. The EMAS is capable of supporting pedestrian traffic for the purpose of maintaining the arresting material or any collocated navigational aid without surface damage.

Maintenance program of the EMAS system is listed as Exhibit 309-1.

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Service Roads

Runway 4/22

1. Runway 4 approach lighting access

Runway 17/35

- 1. Runway 35 localizer building access
- 2. Runway 35 localizer access
- 3. Runway 35 approach lighting access

Runway 12R/30L

1. Runway 12R approach lighting access

Runway 12L/30R

1. Runway 12L approach lighting access

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