

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
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Arrival Name		Number	STAR Computer Code	Superseded Number	Dated	Effective Date			
BAINY (RNAV)		FOUR	BAINY.BAINY4	THREE	01/05/2017				
TRANSITION ROUTES:									
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
COLDD	COLDD.BAINY4	COLDD	COLDD						AT/ABOVE FL240
			MILAC	226.04	61.79	11000	3300		AT/ABOVE FL200
			BAINY	221.23	21.61	10000	3300		AT/ABOVE 15000
GGULL	GGULL.BAINY4	GGULL	GGULL						AT/ABOVE FL240
			SHULZ	158.76	30.17	10000	3300		AT/ABOVE FL200
			BAINY	159.07	20.00	10000	3300		AT/ABOVE 15000
HHOGS	HHOGS.BAINY4	HHOGS	HHOGS						AT/ABOVE FL240
			MILAC	261.48	49.50	11000	3300		AT/ABOVE FL200
			BAINY	221.23	21.61	10000	3300		AT/ABOVE 15000
MILAC	MILAC.BAINY4	MILAC	MILAC						AT/ABOVE FL200
			BAINY	221.23	21.61	10000	3300		AT/ABOVE 15000
SHULZ	SHULZ.BAINY4	SHULZ	SHULZ						AT/ABOVE FL200
			BAINY	159.07	20.00	10000	3300		AT/ABOVE 15000
TIGHE	TIGHE.BAINY4	TIGHE	TIGHE						AT/ABOVE FL200
			BAINY	115.33	20.00	10000	3300		AT/ABOVE 15000
TTAIL	TTAIL.BAINY4	TTAIL	TTAIL						
			WINDD	113.22	85.43	10000	3300		AT/ABOVE FL240
			TIGHE	114.56	31.10	10000	3300		AT/ABOVE FL200
			BAINY	115.33	20.00	10000	3300		AT/ABOVE 15000
WINDD	WINDD.BAINY4	WINDD	WINDD						AT/ABOVE FL240
			TIGHE	114.56	31.10	10000	3300		AT/ABOVE FL200
			BAINY	115.33	20.00	10000	3300		AT/ABOVE 15000

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ARRIVAL ROUTE DESCRIPTION:

FROM BAINY ON TRACK 159.41/10.84 TO CROSS LUCCY AT OR ABOVE 11000 AND AT 280 KIAS, THEN ON TRACK 159.10/15.16 TO SAUGR.

LANDING RWY 04, 17, 22, 30R: FROM SAUGR ON TRACK 159.35/13.00 TO CROSS GEP VORTAC AT OR ABOVE 10000 AND AT 250 KIAS, THEN ON TRACK 156.06/6.13 TO CROSS PRRPL AT OR ABOVE 9000, THEN ON TRACK 121.22/10.22 TO CROSS OSMOH AT 8000 AND AT 210 KIAS, THEN ON TRACK 121.22. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 12L/R: FROM SAUGR ON TRACK 181.03/2.01 TO CROSS OGLVE AT OR ABOVE 8000, THEN ON TRACK 181.19/8.10 TO CROSS KAYQU AT 7000 AND AT 210 KIAS. EXPECT RNAV (RNP), RNAV (GPS), OR ILS RWY 12L APPROACH OR RADAR VECTORS TO RWY 12L/R FINAL APPROACH COURSE.

LANDING RWY 30L: FROM SAUGR ON TRACK 159.35/13.00 TO CROSS GEP VORTAC AT OR ABOVE 10000 AND AT 250 KIAS, THEN ON TRACK 156.06/6.13 TO CROSS PRRPL AT OR ABOVE 9000, THEN ON TRACK 172.44/16.38 TO CROSS MAUER AT 8000 AND AT 210 KIAS, THEN ON TRACK 121.45/3.00 TO CROSS LEDRZ AT 8000 AND AT 210 KIAS, THEN ON TRACK 121.45. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 35: FROM SAUGR ON TRACK 159.35/13.00 TO CROSS GEP VORTAC AT OR ABOVE 10000 AND AT 250 KIAS, THEN ON TRACK 156.06/6.13 TO CROSS PRRPL AT OR ABOVE 9000, THEN ON TRACK 180.29/14.87 TO CROSS BRNVL AT 8000 AND AT 210 KIAS, THEN ON TRACK 178.56/3.32 TO CROSS LISEL AT 8000 AND AT 210 KIAS, THEN ON TRACK 176.04. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED

PROCEDURAL DATA NOTES:

NOTE: JET AIRCRAFT ONLY

NOTE: EXPECT RUNWAY ASSIGNMENT FROM TRACON UPON INITIAL CONTACT.

NOTE: JET AIRCRAFT DESCEND VIA MACH NUMBER UNTIL 280K, IF UNABLE, ADVISE ATC.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT BAINY: HOLD N, LT, 159.07 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

CHART: MINNEAPOLIS CENTER

AIRPORTS SERVED:

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
MSP	MINNEAPOLIS	MN

LOST COMMUNICATIONS PREFERENCES:

REMARKS:

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)

MAG VAR: MSP 00E/2015

CHART AT OSMOH TERMINUS: MSP LDG RWY 4, 17, 22, 30R

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BAINY (RNAV)	FOUR	BAINY.BAINY4	THREE	01/05/2017	

CHART AT KAYQU TERMINUS: MSP LDG RWY 12L/R
CHART AT LEDRZ TERMINUS: MSP LDG RWY 30L
CHART AT LISEL TERMINUS: MSP LDG RWY 35

FLIGHT INSPECTED BY:

ORGANIZATION: **DATE:**

Flight Inspected Signature: _____

DEVELOPED BY:

CASIMIR TABAKA (BARBARA GORMAN)

AJV-A432

01/27/2025

Developed By Signature: _____

APPROVED BY:

CASIMIR TABAKA

AJV-A430

Approved By Signature: _____

CHANGES:

1. UPDATED BAINY CROSSING ALTITUDE FROM BETWEEN 15000 AND FL190 TO AT OR ABOVE 15000.
2. TRANSITION ROUTES: MEAS AND MOCAS UPDATED.
3. REMOVED MEAS AND MOCAS FROM ARRIVAL ROUTE DESCRIPTION.
4. LANDING RWY 30R, 22, 17, 04: REMOVED FIX IRRRV; UPDATED LAST COURSE FROM 121.92 TO 121.22.
5. LANDING RWY 12L/R: UPDATED TRACK/DISTANCE FROM SAUGR TO OGLVE FROM 181.08/2.96 TO 181.03/2.01; DISTANCE OGLVE TO KAYQU FROM 7.15 TO 8.10.
6. LANDING RWY 30L: UPDATED THEN ON TRACK FROM "121.03/11.27 TO JJENI, THEN ON TRACK 121.03" TO "121.45/3.00 TO CROSS LEDRZ AT 8000 AND AT 210 KIAS, THEN ON TRACK 121.45."
7. LANDING RWY 35: UPDATED THEN ON TRACK FROM "178.24/8.72 TO GWAIT" TO "178.56/3.32 TO CROSS LISEL AT 8000 AND AT 210 KIAS."
8. PROCEDURAL DATA NOTES: MOVED RADAR REQUIRED TO EQUIPMENT REQUIREMENT NOTES; COMBINED AND MOVED RNAV 1, DME/DME/IRU OR GPS REQUIRED TO PBN REQUIREMENT NOTES.
9. CHANGED TURBOJET TO JET IN SPEED CAPABILITY NOTE.
10. UPDATED NOTE: FROM "EXPECT "DESCEND VIA" CLEARANCE AND RUNWAY TRANSITION ASSIGNMENT BY CENTER. APPROACH WILL ASSIGN LANDING RUNWAY" TO "EXPECT RUNWAY ASSIGNMENT FROM TRACON UPON INITIAL CONTACT."
11. UPDATED NOTE: FROM "TURBOJET AIRCRAFT DESCEND VIA MACH NUMBER UNTIL INTERCEPTING 280K. MAINTAIN 280K UNTIL SLOWED BY THE STAR OR ASSIGNED BY ATC" TO "JET AIRCRAFT DESCEND VIA MACH NUMBER UNTIL 280K, IF UNABLE, ADVISE ATC."
12. REMOVED CHART: MSP ATIS, MSP APP CON.
13. ADDED AIRPORT ID AND REMOVED AIRPORT NAME FROM AIRPORTS SERVED ALONG WITH K IDENT ON 17.1 FORM.
14. ADDED TERMINUS INFO TO ADDITIONAL FLIGHT DATA.

REASONS:

1. PER ATC REQUEST.
2. MEAS AMENDED TO LOWEST ALTITUDE THAT WILL PASS A DME/DME SCREEN AND MOCAS UPDATED TO CURRENT REQUIREMENTS.
3. NO LONGER A REQUIREMENT.
4. NO LONGER NEEDED PER FPT/ATC; TO MAINTAIN CURRENT TRACK AFTER OSMOH.
5. FIX OGLVE MOVED PER FPT.
- 6-7. FIX JJENI/GWAIT REMOVED PER FPT/ATC; LEDRZ/LISEL ADDED TO CONNECT TO MSP IAPS.
8. PER 8260.19J CRITERIA STANDARDS DOCUMENTATION.

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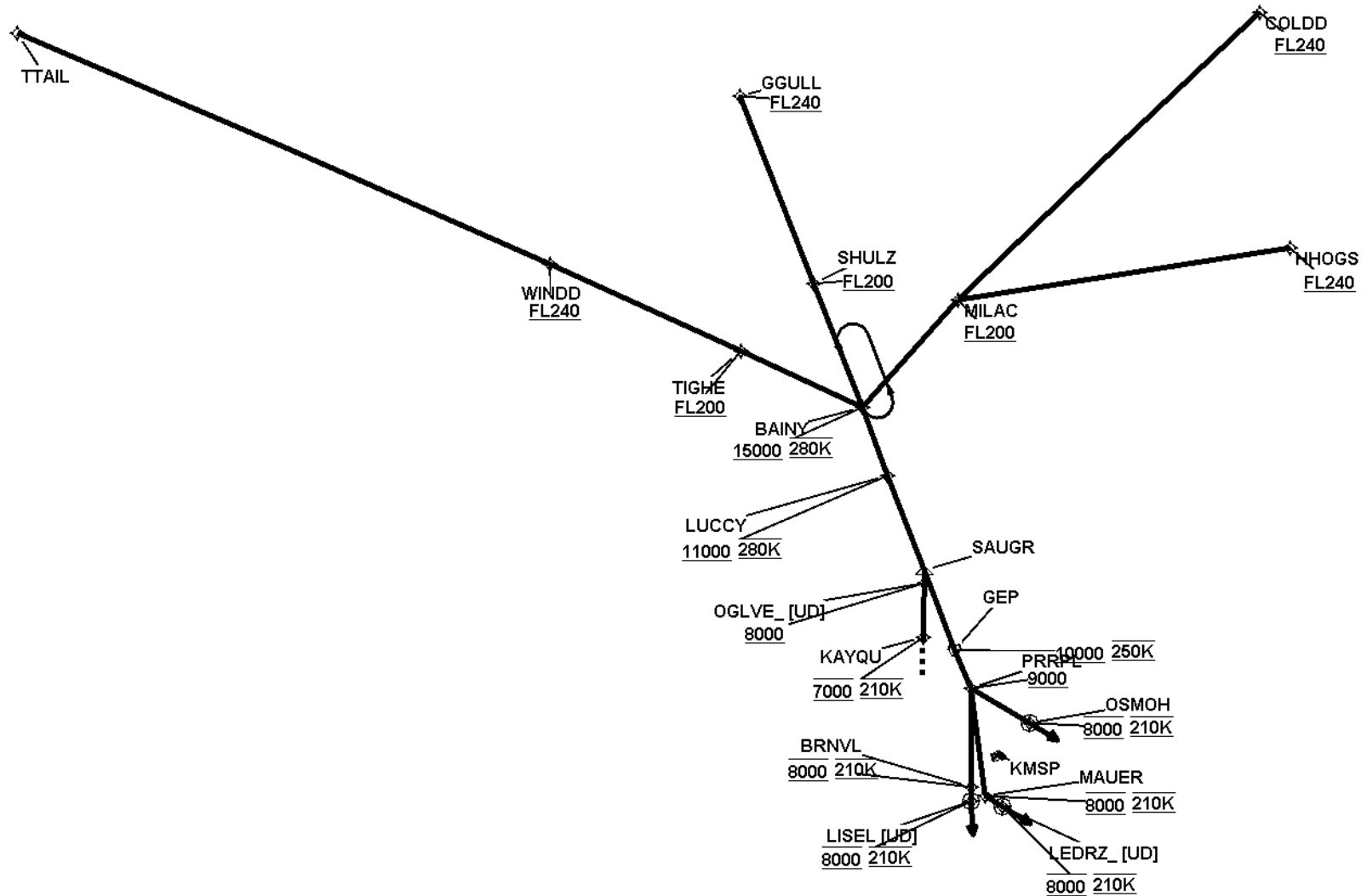
Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
BAINY (RNAV)	FOUR	BAINY.BAINY4	THREE	01/05/2017	
9. IAW 8260.19J 4-5-12 D3(A).					
10. IAW 8260.19J 4-5-2 H(3).					
11. IAW 8260.19J 4-5-2 F.					
12. AUTOMATICALLY CHARTED IAW 8260.16J 4-5-12(F).					
13. PER 8260.19J DOCUMENTATION STANDARDS.					
14. 8260.19J 4-5-2 H(2).					



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BAINY (RNAV)	FOUR	BAINY.BAINY4	THREE	01/05/2017	
Graphic Depiction 1					



**FEDERAL AVIATION ADMINISTRATION
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STAR (DATA RECORD)**

Arrival Name BAINY (RNAV)		Number FOUR		STAR Computer Code BAINY.BAINY4		Superseded Number THREE		Dated 01/05/2017	Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
COLDD	464440.00N / 0921748.00W	Y		IF			AT/ABOVE FL240		COLDD.BAINY4
MILAC	460129.56N / 0932137.76W	Y	FB	TF	226.04	61.79	AT/ABOVE FL200		
BAINY	454513.00N / 0934158.00W	Y	FB	TF	221.23	21.61	AT/ABOVE 15000	AT 280K	
En Route Transition									
GGULL	463202.00N / 0940752.00W	Y		IF			AT/ABOVE FL240		GGULL.BAINY4
SHULZ	460353.93N / 0935210.21W	Y	FB	TF	158.76	30.17	AT/ABOVE FL200		
BAINY	454513.00N / 0934158.00W	Y	FB	TF	159.07	20.00	AT/ABOVE 15000	AT 280K	
En Route Transition									
HHOGS	460911.00N / 0921122.00W	Y		IF			AT/ABOVE FL240		HHOGS.BAINY4
MILAC	460129.56N / 0932137.76W	Y	FB	TF	261.48	49.50	AT/ABOVE FL200		
BAINY	454513.00N / 0934158.00W	Y	FB	TF	221.23	21.61	AT/ABOVE 15000	AT 280K	
En Route Transition									
MILAC	460129.56N / 0932137.76W	Y		IF			AT/ABOVE FL200		MILAC.BAINY4
BAINY	454513.00N / 0934158.00W	Y	FB	TF	221.23	21.61	AT/ABOVE 15000	AT 280K	
En Route Transition									
SHULZ	460353.93N / 0935210.21W	Y		IF			AT/ABOVE FL200		SHULZ.BAINY4
BAINY	454513.00N / 0934158.00W	Y	FB	TF	159.07	20.00	AT/ABOVE 15000	AT 280K	
En Route Transition									
TIGHE	455349.20N / 0940746.96W	Y		IF			AT/ABOVE FL200		TIGHE.BAINY4
BAINY	454513.00N / 0934158.00W	Y	FB	TF	115.33	20.00	AT/ABOVE 15000	AT 280K	
En Route Transition									
TTAIL	464128.00N / 0964109.00W	Y		IF					TTAIL.BAINY4
WINDD	460651.75N / 0944816.86W	Y	FB	TF	113.22	85.43	AT/ABOVE FL240		

QUALITY

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
TIGHE	455349.20N / 0940746.96W	Y	FB	TF	114.56	31.10	AT/ABOVE FL200		
BAINY	454513.00N / 0934158.00W	Y	FB	TF	115.33	20.00	AT/ABOVE 15000	AT 280K	
En Route Transition									
WINDD	460651.75N / 0944816.86W	Y		IF			AT/ABOVE FL240		WINDD.BAINY4
TIGHE	455349.20N / 0940746.96W	Y	FB	TF	114.56	31.10	AT/ABOVE FL200		
BAINY	454513.00N / 0934158.00W	Y	FB	TF	115.33	20.00	AT/ABOVE 15000	AT 280K	
Common Route									
BAINY	454513.00N / 0934158.00W	Y		IF			AT/ABOVE 15000	AT 280K	BAINY.BAINY4
LUCCY	453504.41N / 0933632.48W	Y	FB	TF	159.41	10.84	AT/ABOVE 11000	AT 280K	
SAUGR	452054.45N / 0932852.21W	Y	FB	TF	159.10	15.16			
Runway Transition									
SAUGR	452054.45N / 0932852.21W	Y		IF					
GEP VORTAC	450844.47N / 0932223.45W	Y	FB	TF	159.35	13.00	AT/ABOVE 10000	AT 250K	
PRRPL	450308.48N / 0931853.06W	Y	FB	TF	156.06	06.13	AT/ABOVE 9000		
OSMOH	445749.95N / 0930634.25W	Y	FO	TF	121.22	10.22	AT 8000	AT 210K	
KMSP:R04, R17, R22, R30R				FM	121.22				
Runway Transition									
SAUGR	452054.45N / 0932852.21W	Y		IF					
OGLVE	451853.65N / 0932855.27W	Y	FB	TF	181.03	02.01	AT/ABOVE 8000		
KAYQU	451047.83N / 0932909.59W	Y	FB	TF	181.19	08.10	AT 7000	AT 210K	
KMSP:RWY 12L,RWY 12R									
Runway Transition									
SAUGR	452054.45N / 0932852.21W	Y		IF					
GEP VORTAC	450844.47N / 0932223.45W	Y	FB	TF	159.35	13.00	AT/ABOVE 10000	AT 250K	

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<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
PRRPL	450308.48N / 0931853.06W	Y	FB	TF	156.06	06.13	AT/ABOVE 9000		
MAUER	444654.18N / 0931551.42W	Y	FB	TF	172.44	16.38	AT 8000	AT 210K	
LEDZ	444520.11N / 0931215.69W	Y	FO	TF	121.45	03.00	AT 8000	AT 210K	
KMSP:RWY 30L				FM	121.45				
Runway Transition									
SAUGR	452054.45N / 0932852.21W	Y		IF					
GEP VORTAC	450844.47N / 0932223.45W	Y	FB	TF	159.35	13.00	AT/ABOVE 10000	AT 250K	
PRRPL	450308.48N / 0931853.06W	Y	FB	TF	156.06	06.13	AT/ABOVE 9000		
BRNVL	444816.38N / 0931859.44W	Y	FB	TF	180.29	14.87	AT 8000	AT 210K	
LISEL	444605.47N / 0931855.91W	Y	FO	TF	178.90	02.18	AT 8000	AT 210K	
KMSP:RWY 35				FM	176.04				