

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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PANGG (RNAV)	FOUR	PANGG.PANGG4	THREE	06/25/2015	

TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
BAGEL	BAGEL.PANGG4	BAGEL	BAGEL						
			PANGG	275.65	20.68	3400	2400		
FORT WAYNE	FWA.PANGG4	FWA VORTAC	FWA VORTAC						
			BAGEL	333.25	37.52	3400	2700		
			PANGG	275.65	20.68	3400	2400		
LLTCH	LLTCH.PANGG4	LLTCH	LLTCH						
			BAGEL	233.57	50.23	3400	2500		
			PANGG	275.65	20.68	3400	2400		

ARRIVAL ROUTE DESCRIPTION:

FROM PANGG ON TRACK 273.73/14.58 TO MEGGZ, THEN ON TRACK 273.52/8.00 TO CROSS AWSUM AT 10000, THEN ON TRACK 273.41/14.97 TO IROCK, THEN ON TRACK 273.18/11.44 TO CROSS HALIE AT 6000.

LANDING RWY 4R: FROM HALIE ON TRACK 278.27/20.13 TO CROSS OLCYK AT OR ABOVE 4000. EXPECT RNAV (RNP) Y RWY 4R APPROACH.

LANDING RWY 13C: FROM HALIE ON TRACK 278.27/20.13 TO CROSS OLCYK AT OR ABOVE 4000, THEN ON TRACK 278.78/11.07 TO CROSS TINLY AT OR ABOVE 4000, THEN ON TRACK 278.78. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 22L: FROM HALIE ON TRACK 343.45/11.90 TO CROSS GERMN AT OR ABOVE 4000, THEN ON TRACK 343.39/3.41 TO LNAME, THEN ON TRACK 339.10/6.29 TO BOCAH, THEN ON TRACK 274.04/4.50 TO CROSS TACTT AT 3000. EXPECT RNAV (RNP/GPS) RWY 22L APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 31C: FROM HALIE ON TRACK 295.43/10.76 TO CROSS HAADN AT 6000, THEN ON TRACK 295.31/7.00 TO CROSS HILLS AT 5000 AND AT 240 KIAS. EXPECT ILS OR RNAV (RNP/GPS) RWY 31C APPROACH OR 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: LANDING RWY 31C: FOR NON-RNP AIRCRAFT, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT HALIE: HOLD E, LT, 273.18 INBOUND, 8 NM LEGS.

CHART HOLDING AT IROCK: HOLD E, RT, 273.41 INBOUND, 10 NM LEGS.

CHART HOLDING AT PANGG: HOLD E, LT, 273.73 INBOUND, 10 NM LEGS.

CHART HOLDING AT STASH: HOLD E, RT, 270.00 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

CHART: CHICAGO APPROACH CONTROL.

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AIRPORTS SERVED:

AIRPORT ID	CITY	STATE
KMDW	CHICAGO	IL

LOST COMMUNICATIONS PREFERENCES:

RWY 22L: IF APPROACH CLEARANCE NOT RECEIVED BY TACTT, PROCEED INBOUND ON RNAV (GPS) OR RNAV (RNP) RWY 22L ROUTING.

REMARKS:

STASH WP IS STAND-ALONE HOLDING.

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)
MAG VAR = KMDW 04W/2015
CHART AT TINLY TERMINUS: KMDW LDG RWY 13C
CHART AT OLCYK TERMINUS: KMDW LDG RWY 4R
CHART AT TACTT TERMINUS: KMDW LDG RWY 22L
CHART AT HILLS TERMINUS: KMDW LDG RWY 31C

FLIGHT INSPECTED BY:

MICHAEL A GREENWOOD

ORGANIZATION:

FPO

DATE:

01/15/2023

Flight Inspected Signature:

Digitally signed by
JASON KRETSCHMER
Jan 17, 2023

DEVELOPED BY:

LAWRENCE DARLING, AIRSPACE/PROCEDURES
MANAGER

CHICAGO ARTCC 08/31/2022

Developed By Signature:

Digitally signed by
JASON KRETSCHMER
Dec 22, 2022

APPROVED BY:

JASON KRETSCHMER, MANAGER

AJV-A421

Approved By Signature:

Digitally signed by
JASON KRETSCHMER
Dec 22, 2022

CHANGES:

1. MODIFIED RWY 22L ARRIVAL TEXT TO EXPECT RNAV (RNP/GPS) RWY 22L APPROACH AND REMOVED REFERENCE TO STERE WP.
2. ADDED RWY 22L LOST COMMUNICATIONS INSTRUCTIONS: "IF APPROACH CLEARANCE NOT RECEIVED BY TACTT, PROCEED INBOUND ON RNAV (GPS) OR RNAV (RNP) RWY 22L ROUTING."
3. ADDED BOCAH AND TACTT WAYPOINTS.
4. CHANGED RWY 22L RUNWAY TRANSITION ROUTING TO FROM "HALIE-GERMN-LNANE-STERE" TO "HALIE-GERMN-LNANE-BOCAH-TACTT."
5. REPLACED LFD VOR/DME WITH LLTCH WP.
6. RENAMED LFD ENROUTE TRANSITION TO LLTCH ENROUTE TRANSITION.
7. REMOVED ALL VERTICAL NAVIGATION PLANNING INFORMATION.
8. REPLACED GIJ VORTAC/HOLDING WITH STASH WP/HOLDING.
9. ADDED 6000 ALTITUDE RESTRICTION AT HALIE.
10. ADDED AT OR ABOVE 4000 ALTITUDE RESTRICTION AT OLCYK.

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11. ADDED AT OR ABOVE 4000 ALTITUDE RESTRICTION AT TINLY.
12. ADDED 10000 ALTITUDE RESTRICTION AT AWSUM.
13. REMOVED CTLR WP FROM RWY 4R/13C TRANSITION.
14. REMOVED MEA'S/MOCA'S FROM COMMON ROUTE/RWY TRANSITIONS.
15. REMOVED RECOMMENDED NAVAID.
16. MODIFIED RWY 31C ARRIVAL TEXT TO EXPECT ILS OR RNAV (RNP/GPS) RWY 31C APPROACH.
17. REMOVED AIRPORT NAME FROM AIRPORTS SERVED.
18. SEPERATED RWY 13C AND 4R TRANSITIONS.

REASONS:

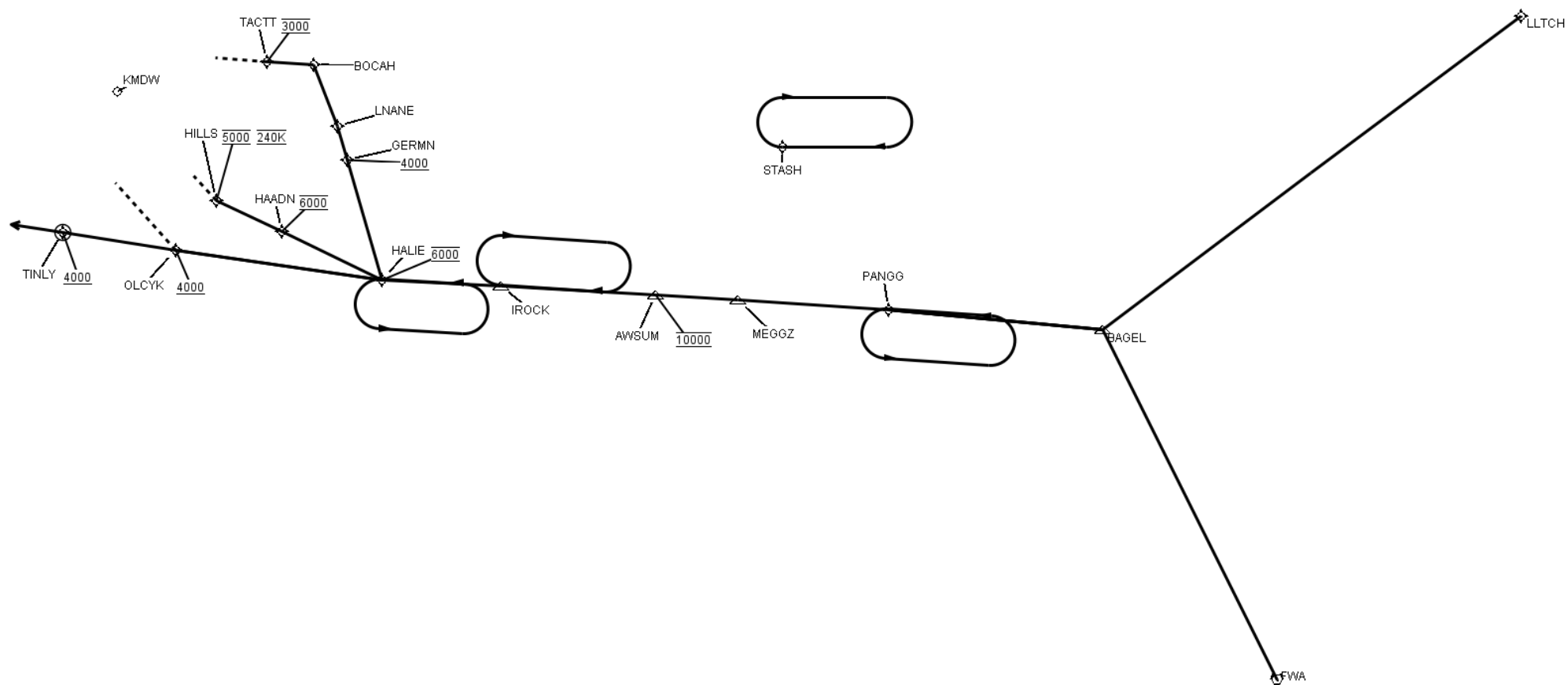
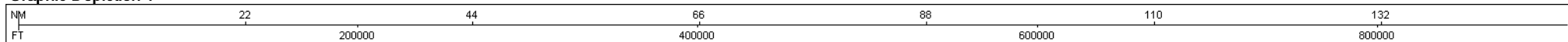
- 1-3. ATC REQUEST.
4. ATC AND INDUSTRY REQUEST TO CLARIFY PILOT ACTIONS IN THE EVENT OF LOST COMMUNICATIONS.
- 5-6. LFD VOR/DME SCHEDULED TO BE DECOMMISSIONED UNDER VOR MON.
7. NO LONGER PERMITTED PER FAAO 8260.19I PARA 4-5-2E NOTE.
8. GIJ VORTAC SCHEDULED TO BE DECOMMISSIONED UNDER VOR MON.
9. REQUIRED PER C90/ZAU LETTER OF AGREEMENT.
- 10-11. REQUIRED PER FAAO 8260.3E PARA 2-2-7.F.(1).
12. REQUIRED PER C90/SBD ATCT LETTER OF AGREEMENT.
13. NO LONGER NEEDED
- 14-15. NO LONGER PUBLISHED IAW 8260.19I.
16. MULTIPLE TYPE IAPS AVAILABLE
17. CURRENT DOCUMENTATION STANDARDS.
18. TO ACCOMPANY APPROPRIATE TERMINUS POINT IN CONJUNCTION WITH IAPS.

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Graphic Depiction 1



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)

Arrival Name PANGG (RNAV)	Number FOUR		STAR Computer Code PANGG.PANGG4		Superseded Number THREE		Dated 06/25/2015		Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
BAGEL	413057.51N / 0853649.28W	Y		IF					BAGEL.PANGG4
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
En Route Transition									
FWA VORTAC	405844.63N / 0851117.01W	Y		IF					FWA.PANGG4
BAGEL	413057.51N / 0853649.28W	Y	FB	TF	329.25	37.52			
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
En Route Transition									
LLTCH	420344.18N / 0844555.71W	Y		IF					LLTCH.PANGG4
BAGEL	413057.51N / 0853649.28W	Y	FB	TF	229.57	50.23			
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
Common Route									
PANGG	413130.03N / 0860420.39W	Y		IF					PANGG.PANGG4
MEGGZ	413124.28N / 0862344.65W	Y	FB	TF	269.73	14.58			
AWSUM	413119.74N / 0863423.35W	Y	FB	TF	269.52	08.00	AT 10000		
IROCK	413108.73N / 0865418.71W	Y	FB	TF	269.41	14.97			
HALIE	413057.85N / 0870931.95W	Y	FB	TF	269.18	11.44	AT 6000		
Runway Transition									
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000		
OLCYK	413224.69N / 0873616.06W	Y	FB	TF	274.27	20.13	AT/ABOVE 4000		
KMDW:RWY 4R									
Runway Transition									
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000		
OLCYK	413224.69N / 0873616.06W	Y	FB	TF	274.27	20.13	AT/ABOVE 4000		

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Arrival Name PANGG (RNAV)		Number FOUR		STAR Computer Code PANGG.PANGG4		Superseded Number THREE		Dated 06/25/2015	Effective Date
<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>
TINLY	413319.08N / 0875057.56W	Y	FO	TF	274.78	11.07	AT/ABOVE 4000		
KMDW:RWY 13C				FM	274.78				
Runway Transition									
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000		
GERMN	414206.60N / 0871506.58W	Y	FB	TF	339.45	11.90	AT/ABOVE 4000		
LNANE	414518.38N / 0871642.92W	Y	FB	TF	339.39	03.41			
BOCAH	415100.78N / 0872015.49W	Y	FB	TF	335.10	06.29			
TACTT	415100.82N / 0872616.77W	Y	FB	TF	270.04	04.50	AT 3000		
KMDW:RWY 22L									
Runway Transition									
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000		
HAADN	413453.03N / 0872252.46W	Y	FB	TF	291.43	10.76	AT 6000		
HILLS	413725.40N / 0873134.18W	Y	FB	TF	291.31	07.00	AT 5000	AT 240K	
KMDW:RWY 31C									