

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.  
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
<b>PANGG (RNAV)</b>	<b>SEVEN</b>	<b>PANGG.PANGG7</b>	<b>SIX</b>	<b>08/10/2023</b>	

**TRANSITION ROUTES:**

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
ASHEN	ASHEN.PANGG7	ASHEN	ASHEN						
			FNLYY	277.11	38.65	6000	2400		AT FL240
			BAGEL	276.55	05.00	6000	2400		
			PANGG	275.65	20.68	6000	2400		
BAGEL	BAGEL.PANGG7	BAGEL	BAGEL						
			PANGG	275.65	20.68	6000	2400		
FORT WAYNE	FWA.PANGG7	FWA VORTAC	FWA VORTAC						
			MAKKI	333.25	32.52	9000	2700		AT FL240
			BAGEL	333.00	05.00	6000	2400		
			PANGG	275.65	20.68	6000	2400		
LLTCH	LLTCH.PANGG7	LLTCH	LLTCH						
			BRTTN	233.57	45.23	6000	2500		AT FL240
			BAGEL	233.06	05.00	6000	2400		
			PANGG	275.65	20.68	6000	2400		

**ARRIVAL ROUTE DESCRIPTION:**

FROM PANGG ON TRACK 273.73/14.58 TO CROSS MEGGZ AT 11000, 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, THEN ON TRACK 278.27. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 13L: FROM HALIE ON TRACK 278.55/31.20 TO CROSS TINLY AT OR ABOVE 4000, THEN ON TRACK 278.55. 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 RWY 22L APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 31R: FROM HALIE ON TRACK 295.43/10.76 TO CROSS ELLJO AT 6000, THEN ON TRACK 295.31/7.00 TO CROSS HILLS AT 5000 AND AT 240 KIAS. EXPECT ILS OR RNAV RWY 31R APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING 05C/IGQ/3HO/GYY: FROM PANGG ON TRACK 273.73/14.58 TO CROSS MEGGZ AT 11000, 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, THEN ON TRACK 267.00/3.00 TO CROSS JOSSH AT 6000, THEN ON TRACK 267.00. 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: LANDING RWY 31R: FOR NON-RNP AIRCRAFT, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

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**FIXES AND/OR HOLDING PATTERNS:**

CHART HOLDING AT BAGEL: HOLD E, LT, 275.65 INBOUND, 8 NM LEGS.  
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, 275.65 INBOUND, 10 NM LEGS.  
CHART HOLDING AT STASH: HOLD E, RT, 270.00 INBOUND, 10 NM LEGS.

**COMMUNICATIONS:**

**AIRPORTS SERVED:**

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
MDW	CHICAGO	IL
05C	GRIFFITH	IN
IGQ	CHICAGO	IL
3HO	HOBART	IN
GYG	GARY	IN

**LOST COMMUNICATIONS PREFERENCES:**

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

**REMARKS:**

23 DEGREE BANK ANGLE USED AT BAGEL.

**ADDITIONAL FLIGHT DATA:**

DME/DME ASSESSMENT: SAT (RNP 2.0)

MAG VAR: MDW 04W/2015

CHART AT TINLY TERMINUS: MDW LDG RWY 13L

CHART AT HILLS TERMINUS: MDW LDG RWY 31R

CHART AT OLCYK TERMINUS: MDW LDG RWY 4R

CHART AT TACTT TERMINUS: MDW LDG RWY 22L

CHART AT JOSSH TERMINUS: LDG 05C, IGQ, 3HO, GYG

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PANGG (RNAV)	SEVEN	PANGG.PANGG7	SIX	08/10/2023	

**FLIGHT INSPECTED BY:**

**ORGANIZATION:** **DATE:**

Flight Inspected Signature: \_\_\_\_\_

**DEVELOPED BY:**

JOSEPH BOCIK, AIRSPACE/PROCEDURES MANAGER CHICAGO ARTCC 3/1/2025

Developed By Signature: \_\_\_\_\_

**APPROVED BY:**

ROBERT HAMILTON AJV-A433

Approved By Signature: \_\_\_\_\_

**CHANGES:**

1. ADDED ASHEN ENROUTE TRANSITION.
2. ADDED WAYPOINTS BRTTN BETWEEN LLTCH AND BAGEL, FNLYY BETWEEN ASHEN AND BAGEL, AND MAKKI BETWEEN FWA AND BAGEL WITH FL240 ALTITUDE RESTRICTIONS.
3. ADDED 05C, IGQ, 3HO, AND GYY AIRPORTS.
4. ADDED NEW COMMON ROUTE FOR SATELLITE AIRPORTS.
5. ADDED NEW TERMINUS FIX JOSSH FOR SATELLITE AIRPORTS WITH A CROSSING RESTRICTION OF 6000.
6. ADDED 11000 ALTITUDE RESTRICTION AT MEGGZ.
7. ADDED HOLDING AT BAGEL.
8. FWA TRANSITION: MOCA AT BAGEL CHANGED FROM 2700 TO 2400; LLTCH TRANSITION: MOCA AT BAGEL CHANGED FROM 2500 TO 2400.
9. ADDED REMARK 23 DEGREE BANK ANGLE USED AT BAGEL.
10. ALL ENROUTE TRANSITION MEA VALUES CHANGED FROM 5000 TO 6000.

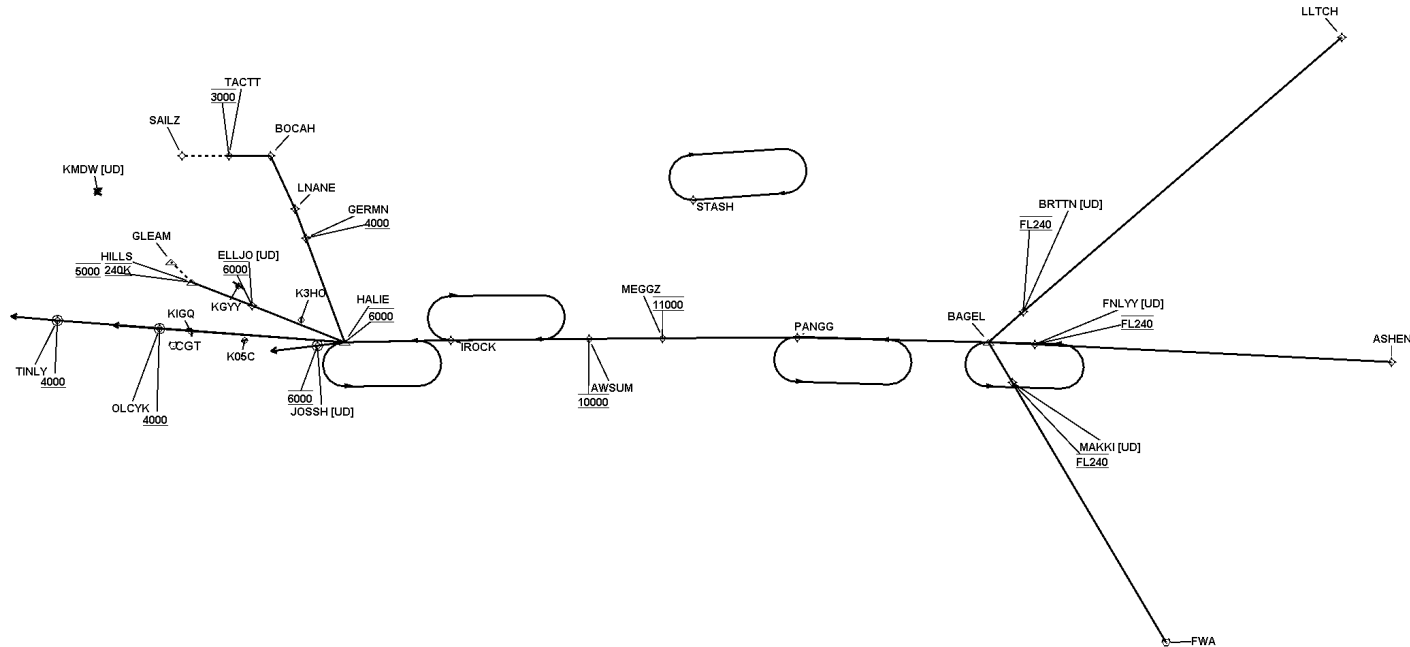
**REASONS:**

- 1, 2, 6. ATC REQUEST TO MITIGATE INDUSTRY CONCERNS WITH STEEP DESCENTS.
- 3, 4, 5. PROVIDE ROUTE FOR SATELLITE AIRPORTS TO REPLACE GOSHEN CONVENTIONAL STAR.
7. ATC REQUEST TO ASSIST IN SEQUENCING.
8. NEW ROUTE EVAL.
9. TO MAKE REPEATABLE FOR FUTURE BUILDS.
10. D/D/I EVAL.

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Graphic Depiction 1					



FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STAR (DATA RECORD)

Arrival Name PANGG (RNAV)	Number SEVEN		STAR Computer Code PANGG.PANGG7		Superseded Number SIX		Dated 08/10/2023		Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
ASHEN	412849.77N / 0843848.30W	Y		IF					ASHEN.PANGG7
FNLYY	413044.36N / 0853010.32W	Y	FB	TF	273.11	38.65	AT FL240		
BAGEL	413057.51N / 0853649.28W	Y	FB	TF	272.55	05.00			
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
En Route Transition									
BAGEL	413057.51N / 0853649.28W	Y		IF					BAGEL.PANGG7
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
En Route Transition									
FWA VORTAC	405844.63N / 0851117.01W	Y		IF					FWA.PANGG7
MAKKI	412640.27N / 0853323.63W	Y	FB	TF	329.25	32.52	AT FL240		
BAGEL	413057.51N / 0853649.28W	Y	FB	TF	329.00	05.00			
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
En Route Transition									
LLTCH	420344.18N / 0844555.71W	Y		IF					LLTCH.PANGG7
BRTTN	413414.30N / 0853147.62W	Y	FB	TF	229.57	45.23	AT FL240		
BAGEL	413057.51N / 0853649.28W	Y	FB	TF	229.06	05.00			
PANGG	413130.03N / 0860420.39W	Y	FB	TF	271.65	20.68			
Common Route									
PANGG	413130.03N / 0860420.39W	Y		IF					PANGG.PANGG7
MEGGZ	413124.28N / 0862344.65W	Y	FB	TF	269.73	14.58	AT 11000		
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		

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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>
Common Route									
PANGG	413130.03N / 0860420.39W	Y		IF					PANGG.PANGG7
MEGGZ	413124.28N / 0862344.65W	Y	FB	TF	269.73	14.58	AT 11000		
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		
JOSSH	413035.83N / 0871329.75W	Y	FO	TF	263.00	03.00	AT 6000		
K05C,K3HO,KGYG, KIGQ				FM	263.00				
Runway Transition									
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000		
OLCYK	413224.69N / 0873616.06W	Y	FO	TF	274.27	20.13	AT/ABOVE 4000		
KMDW:RWY 4R				FM	274.27				
Runway Transition									
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000		
TINLY	413319.08N / 0875057.56W	Y	FO	TF	274.55	31.20	AT/ABOVE 4000		
KMDW:RWY 13L				FM	274.55				
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			
TACCT	415100.82N / 0872616.77W	Y	FB	TF	270.04	04.50	AT 3000		
KMDW:RWY 22L									

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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>	
Runway Transition										
HALIE	413057.85N / 0870931.95W	Y		IF			AT 6000			
ELLJO	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 31R										