

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Arrival Name		Number	STAR Computer Code	Superseded Number	Dated	Effective Date
QERVO (RNAV)		TWO	MARCS.QERVO2	ONE	01/25/2024	
TRANSITION ROUTES:						
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA MOCA MAA Crossing Altitudes / Fixes
ANNGY	ANNGY.QERVO2	ANNGY	ANNGY			
			WEEED	218.91	112.36	13000 2800
			WAILN	270.98	20.41	13000 2800
			HOSAY	270.86	27.10	13000 2800 AT/ABOVE FL240
			RODIO	270.64	18.40	13000 2800
			MARCS	270.44	22.01	13000 2800 BETWEEN 13000 AND 15000
BLEWE	BLEWE.QERVO2	BLEWE	BLEWE			
			OUTLW	194.55	52.34	13000 3600
			MARCS	207.02	33.54	13000 2800 BETWEEN 13000 AND 15000
CAAGE	CAAGE.QERVO2	CAAGE	CAAGE			
			WEEED	252.51	44.89	13000 2800
			WAILN	270.98	20.41	13000 2800
			HOSAY	270.86	27.10	13000 2800 AT/ABOVE FL240
			RODIO	270.64	18.40	13000 2800
			MARCS	270.44	22.01	13000 2800 BETWEEN 13000 AND 15000
MOLLR	MOLLR.QERVO2	MOLLR	MOLLR			
			WEEED	275.11	47.87	13000 2800
			WAILN	270.98	20.41	13000 2800
			HOSAY	270.86	27.10	13000 2800 AT/ABOVE FL240
			RODIO	270.64	18.40	13000 2800
			MARCS	270.44	22.01	13000 2800 BETWEEN 13000 AND 15000
WAILN	WAILN.QERVO2	WAILN	WAILN			
			HOSAY	270.86	27.10	13000 2800 AT/ABOVE FL240
			RODIO	270.64	18.40	13000 2800
			MARCS	270.44	22.01	13000 2800 BETWEEN 13000 AND 15000
WINDU	WINDU.QERVO2	WINDU	WINDU			

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QERVO (RNAV)			TWO	MARCS.QERVO2		ONE			01/25/2024	
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes	
			BLEWE	194.62	20.39	13000	3600			
			OUTLW	194.55	52.34	13000	3600			
			MARCS	207.02	33.54	13000	2800		BETWEEN 13000 AND 15000	

ARRIVAL ROUTE DESCRIPTION:

SAT: FROM MARCS ON TRACK 245.44/4.92 TO CROSS PGOUT BETWEEN 11000 AND 13000 AND AT 280 KIAS, THEN ON TRACK 245.04/4.65 TO QERVO.

LANDING SAT RWY 4: FROM QERVO ON TRACK 217.36/15.17 TO CROSS TEXNN BETWEEN 8000 AND 9000, THEN ON TRACK 217.27/5.95 TO CROSS JEFRE AT OR ABOVE 7000, THEN ON TRACK 217.23/8.01 TO CROSS MCRTY AT 6000 AND AT 210 KIAS, THEN ON TRACK 217.23. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING SAT RWY 13R: FROM QERVO ON TRACK 245.12/6.83 TO CROSS TAHKO AT OR BELOW 11000, THEN ON TRACK 245.14/7.00 TO CROSS FJITA AT OR BELOW 8000, THEN ON TRACK 245.05/4.50 TO TRTLA, THEN ON TRACK 245.70/3.91 TO CROSS SALZA AT 6000 AND AT 210 KIAS, THEN ON TRACK 268.13/7.29 TO DOMNK, THEN ON TRACK 307.53/1.33 TO CROSS CARNE AT 6000, THEN ON TRACK 307.53. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING SAT RWY 22: FROM QERVO ON TRACK 274.02/16.53 TO CROSS TRITP AT 7000 AND AT 210 KIAS, THEN ON TRACK 274.02. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING SAT RWY 31L: FROM QERVO ON TRACK 228.58/10.49 TO DERRR, THEN ON TRACK 227.72/11.14 TO CROSS COMUT AT 6000 AND AT 210 KIAS, THEN ON TRACK 163.84/5.24 TO ALRGI, THEN ON TRACK 127.62/4.50 TO CROSS XLANT AT 6000, THEN ON TRACK 127.62. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING SKF/BAZ/CVB/SSF/PEZ/5C1/RND: FROM MARCS ON TRACK 245.44/4.92 TO CROSS PGOUT BETWEEN 11000 AND 13000 AND AT 280 KIAS, THEN ON TRACK 245.04/4.65 TO QERVO, THEN ON TRACK 245.12/2.00 TO CROSS POYYO AT 10000, THEN ON TRACK 245.12. 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 AND TURBOPROP AIRCRAFT ONLY

NOTE: WAILN TRANSITION FOR HOUSTON TERMINAL AREA DEPARTURES ONLY.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT ERROR: HOLD NE, RT, 216.97 INBOUND, 5 NM LEGS.

CHART HOLDING AT HARDD: HOLD SW, RT, 036.67 INBOUND, 5 NM LEGS.

CHART HOLDING AT RBNSN: HOLD NW, RT, 127.60 INBOUND, 5 NM LEGS.

CHART HOLDING AT RODIO: HOLD E, RT, 270.64 INBOUND, 10 NM LEGS.

CHART HOLDING AT WEEED: HOLD E, RT, 270.98 INBOUND, 12 NM LEGS.

CHART HOLDING AT SLOWW: HOLD SE, RT, 307.61 INBOUND, 5 NM LEGS.

CHART: FOALL, AREEA.

COMMUNICATIONS:

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QERVO (RNAV)	TWO	MARCS.QERVO2	ONE	01/25/2024	

AIRPORTS SERVED:

AIRPORT ID	CITY	STATE
SAT	SAN ANTONIO	TX
5C1	SAN ANTONIO	TX
CVB	CASTROVILLE	TX
SKF	SAN ANTONIO	TX
BAZ	NEW BRAUNFELS	TX
PEZ	PLEASANTON	TX
RND	UNIVERSAL CITY	TX
SSF	SAN ANTONIO	TX

LOST COMMUNICATIONS PREFERENCES:

- SAT RWY 4: AFTER MCRTY, PROCEED TO FOALL AT 5000, THEN ON ILS OR LOC RWY 4 OR RNAV (GPS) Y RWY 4 APPROACH.
- SAT RWY 13R: AFTER CARNE, PROCEED TO RBNSN AT 6000 AND HOLD.
- SAT RWY 22: AFTER TRITP, PROCEED TO AREEA AT 5000, THEN ON RNAV (GPS) Y RWY 22 APPROACH.
- SAT RWY 31L: AFTER XLANT, PROCEED TO SLOW AT 4000 AND HOLD.

REMARKS:

- ENROUTE 2800 FT MOCA VALUES DUE TO 1728 MSL TWR LOCATED DOWNSTREAM IN COMMON ROUTE AFTER QERVO.

ADDITIONAL FLIGHT DATA:

- DME/DME ASSESSMENT: SAT (RNP 2.0)
- MAG VAR: SAT 04E/2020.
- CHART AT XLANT TERMINUS: SAT LDG RWY 31L.
- CHART AT MCRTY TERMINUS: SAT LDG RWY 4.
- CHART AT TRITP TERMINUS: SAT LDG RWY 22.
- CHART AT CARNE TERMINUS: SAT LDG RWY 13R.
- CHART AT POYYO TERMINUS: LDG SKF/BAZ/CVB/SSF/PEZ/5C1/RND.

FLIGHT INSPECTED BY:

RUSSELL ROSLEWSKI

ORGANIZATION:

AJF

DATE:

06/18/2025

Flight Inspected Signature:

DEVELOPED BY:

DAVE MULLINAX, SUPPORT MANAGER

TCHU1-ZHU

04/23/2025

Developed By Signature:

APPROVED BY:

ALLAN WILL, MANAGER

AJV-A423

Approved By Signature:

Digitally signed by

DAVID DANNER

Jun 24, 2025

Digitally signed by

DAVID DANNER

Jun 24, 2025

Digitally signed by

DAVID DANNER

Jun 24, 2025



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QERVO (RNAV)	TWO	MARCS.QERVO2	ONE	01/25/2024	

CHANGES:

1. TRANSITION ROUTES: LLEAD TRANSITION - CHANGED "LLEAD" TO "ANNGY."
2. TRANSITION ROUTES: CAAGE TRANSITION - CHANGED CAAGE TO WEEED SEGMENT COURSE FROM "252.50" TO "252.51."
3. TRANSITION ROUTES: REMOVED NILBE TRANSITION AND ASSOCIATED INFORMATION.
4. ARRIVAL ROUTE DESCRIPTION: LANDING SAT RWY 4 - CHANGED ALTITUDE RESTRICTION CROSSING TEXNN FROM "AT OR ABOVE 8000" TO "BETWEEN 8000 AND 9000."
5. ARRIVAL ROUTE DESCRIPTION: LANDING SAT RWY 13R - REMOVED 210 KIAS SPEED RESTRICTION CROSSING CARNE.
6. ARRIVAL ROUTE DESCRIPTION: LANDING SAT RWY 31L - CHANGED ALRGI TO XLANT SEGMENT COURSE AND FM LEG FROM "127.63" TO "127.62."
7. ARRIVAL ROUTE DESCRIPTION: LANDING SAT RWY 31L - REMOVED 210 KIAS SPEED RESTRICTION CROSSING XLANT.
8. COMMUNICATIONS: REMOVED "CHART: SAN ANTONIO APP CON."
9. AIRPORTS SERVED: CHANGED ALL AIRPORT ID'S FROM FOUR LETTER IDENTIFIERS TO THREE LETTER IDENTIFIERS.
10. LOST COMMUNICATIONS PREFERENCES: RWY 13R - CHANGED "...PROCEED TO RBNSN..." TO "...PROCEED TO RBNSN AT 6000..."
11. TRANSITION ROUTES: INCREASED ALL 2300 FT MOCA VALUES TO 2800.

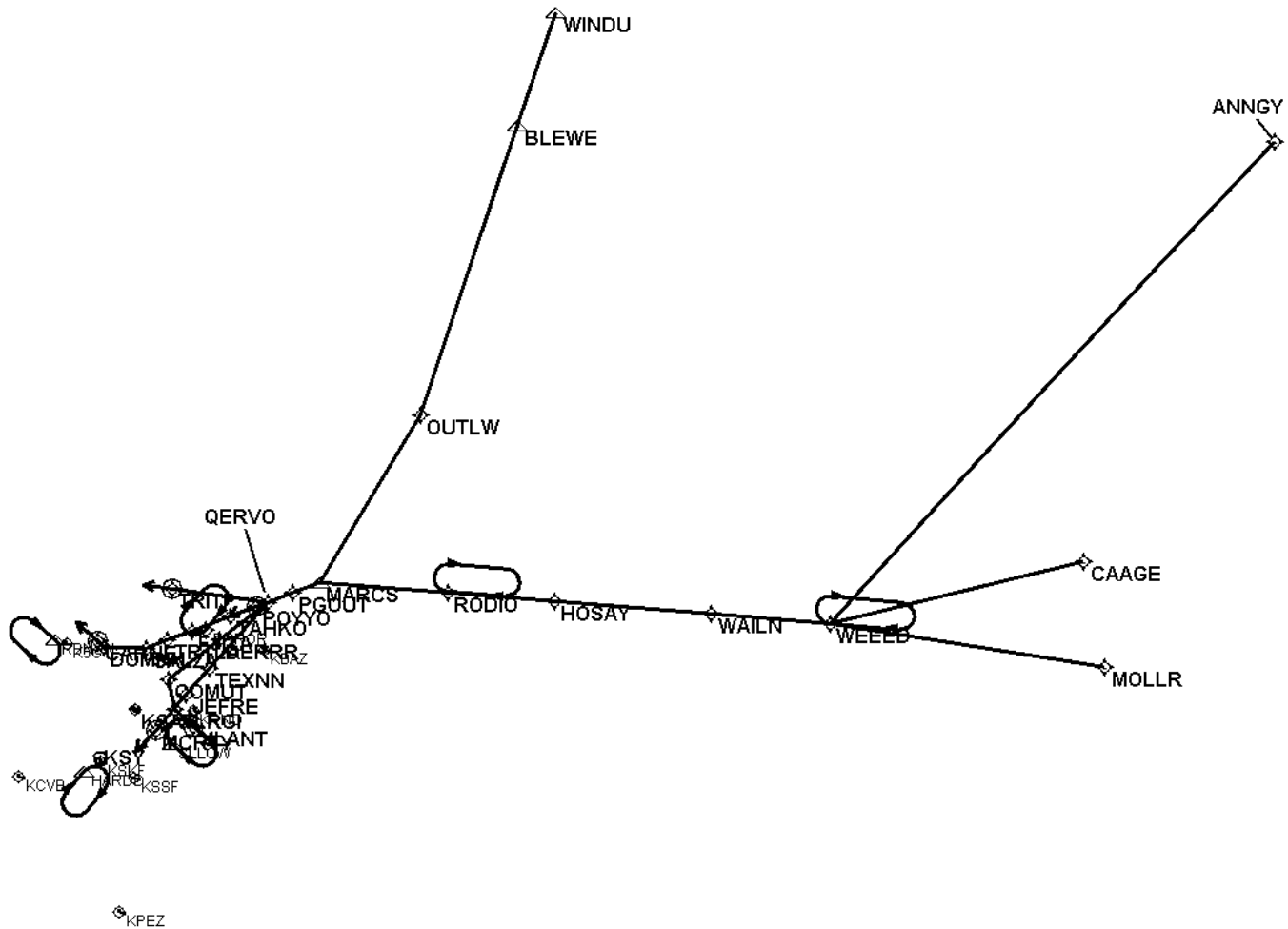
REASONS:

- 1,3-5,7,10. ATC REQUEST.
2. TARGETS CALCULATED TRACK IS 252.5050. ALL TRACKS DOCUMENTED TO NEAREST HUNDREDTH OF A DEGREE PER FAAO 8160.19J, 4-5-12C(1) CRITERIA.
6. TARGETS CALCULATED TRACK IS 127.6249. ALL TRACKS DOCUMENTED TO NEAREST HUNDREDTH OF A DEGREE PER FAAO 8160.19J, 4-5-12C(1) CRITERIA.
8. APPROACH CONTROL CHARTED AUTOMATICALLY PER FAAO 8260.19J, 4-5-12F CRITERIA.
9. REQUIRED DOCUMENTATION PER FAAO 8260.19J, 4-5-12G CRITERIA.
11. NEW 1728 MSL TWR LOCATED DOWNSTREAM IN COMMON ROUTE AFTER QERVO.

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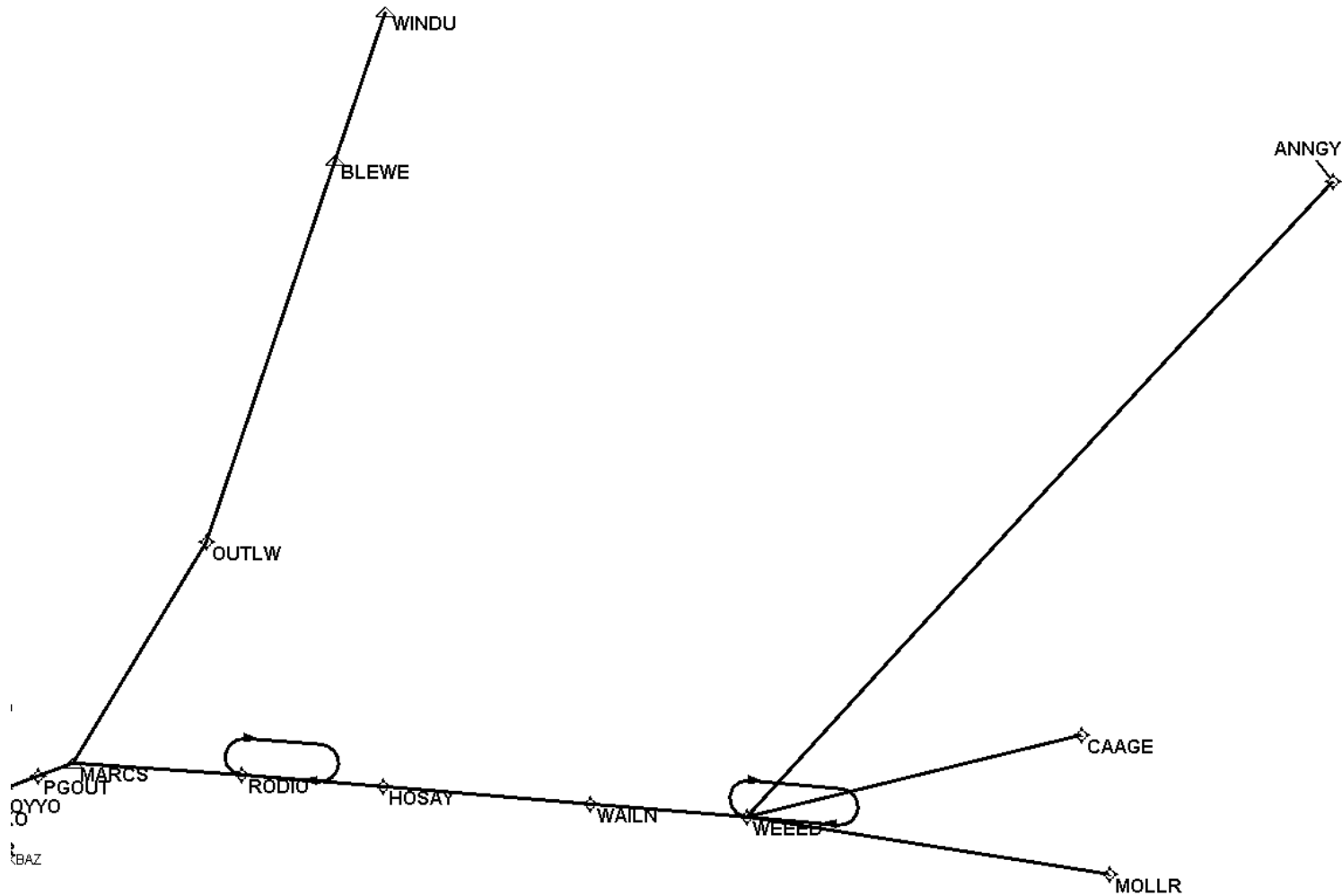
Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
QERVO (RNAV)	TWO	MARCS.QERVO2	ONE	01/25/2024	
Graphic Depiction 1					



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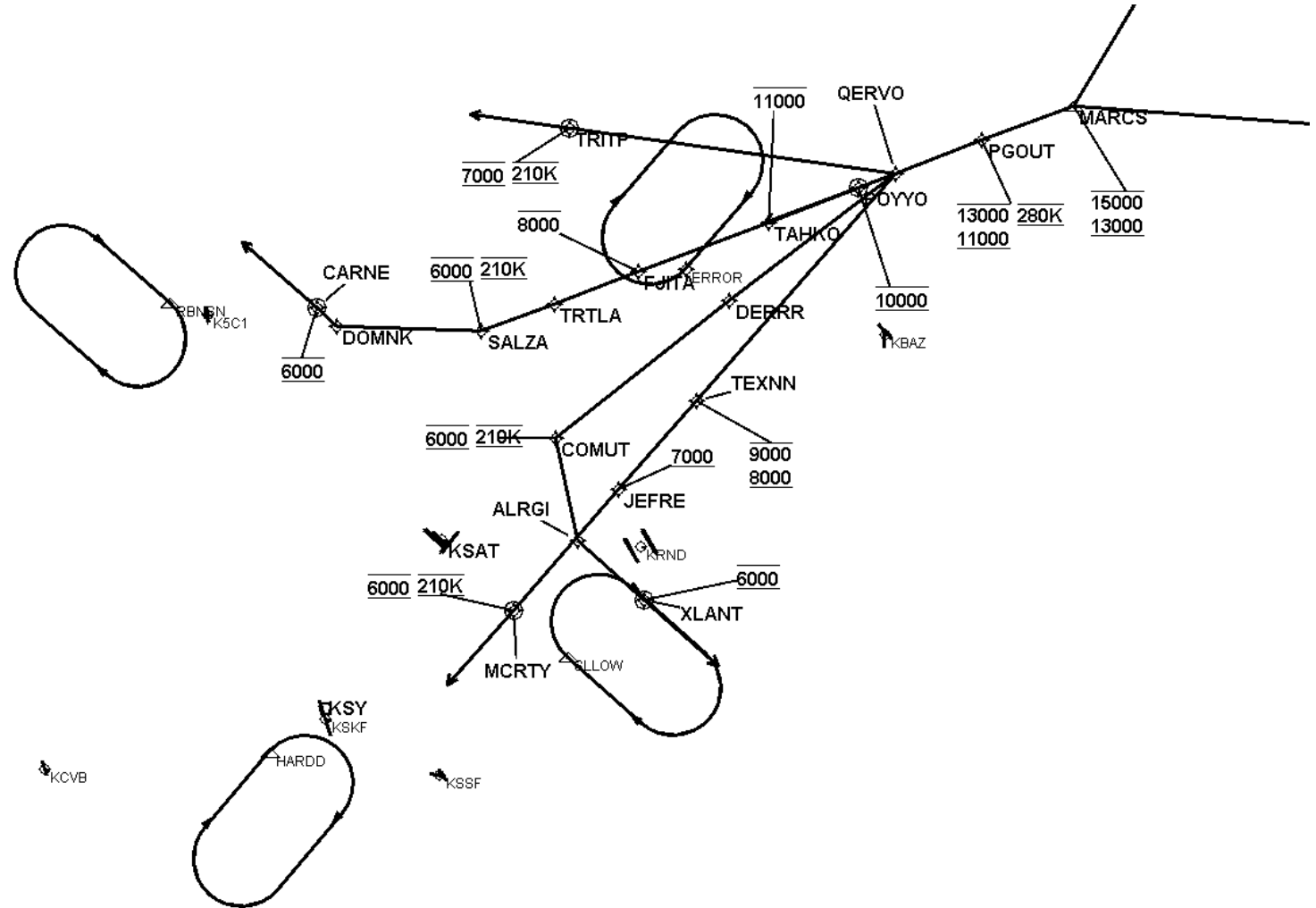
Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
QERVO (RNAV)	TWO	MARCS.QERVO2	ONE	01/25/2024	
Graphic Depiction 2					



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QERVO (RNAV)	TWO	MARCS.QERVO2	ONE	01/25/2024	
Graphic Depiction 3					



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)**

Arrival Name QERVO (RNAV)		Number TWO		STAR Computer Code MARCS.QERVO2		Superseded Number ONE		Dated 01/25/2024	Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
ANNGY	310944.36N / 0944301.07W	Y		IF					ANNGY.QERVO2
WEEED	294645.14N / 0961054.94W	Y	FB	TF	222.91	112.36			
WAILN	294829.63N / 0963417.12W	Y	FB	TF	274.98	20.41			
HOSAY	295044.02N / 0970520.01W	Y	FB	TF	274.86	27.10	AT/ABOVE FL240		
RODIO	295211.90N / 0972625.75W	Y	FB	TF	274.64	18.40			
MARCS	295352.04N / 0975140.70W	Y	FB	TF	274.44	22.01	13000B15000		
En Route Transition									
BLEWE	311227.65N / 0971232.47W	Y		IF					BLEWE.QERVO2
OUTLW	302242.22N / 0973147.67W	Y	FB	TF	198.55	52.34			
MARCS	295352.04N / 0975140.70W	Y	FB	TF	211.02	33.54	13000B15000		
En Route Transition									
CAAGE	295724.76N / 0952045.25W	Y		IF					CAAGE.QERVO2
WEEED	294645.14N / 0961054.94W	Y	FB	TF	256.51	44.89			
WAILN	294829.63N / 0963417.12W	Y	FB	TF	274.98	20.41			
HOSAY	295044.02N / 0970520.01W	Y	FB	TF	274.86	27.10	AT/ABOVE FL240		
RODIO	295211.90N / 0972625.75W	Y	FB	TF	274.64	18.40			
MARCS	295352.04N / 0975140.70W	Y	FB	TF	274.44	22.01	13000B15000		
En Route Transition									
MOLLR	293920.23N / 0951635.83W	Y		IF					MOLLR.QERVO2
WEEED	294645.14N / 0961054.94W	Y	FB	TF	279.11	47.87			
WAILN	294829.63N / 0963417.12W	Y	FB	TF	274.98	20.41			
HOSAY	295044.02N / 0970520.01W	Y	FB	TF	274.86	27.10	AT/ABOVE FL240		
RODIO	295211.90N / 0972625.75W	Y	FB	TF	274.64	18.40			
MARCS	295352.04N / 0975140.70W	Y	FB	TF	274.44	22.01	13000B15000		

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)

Arrival Name QERVO (RNAV)	Number TWO		STAR Computer Code MARCS.QERVO2		Superseded Number ONE		Dated 01/25/2024		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>
En Route Transition									
WAILN	294829.63N / 0963417.12W	Y		IF					WAILN.QERVO2
HOSAY	295044.02N / 0970520.01W	Y	FB	TF	274.86	27.10	AT/ABOVE FL240		
RODIO	295211.90N / 0972625.75W	Y	FB	TF	274.64	18.40			
MARCS	295352.04N / 0975140.70W	Y	FB	TF	274.44	22.01	13000B15000		
En Route Transition									
WINDU	313149.93N / 0970457.06W	Y		IF					WINDU.QERVO2
BLEWE	311227.65N / 0971232.47W	Y	FB	TF	198.62	20.39			
OUTLW	302242.22N / 0973147.67W	Y	FB	TF	198.55	52.34			
MARCS	295352.04N / 0975140.70W	Y	FB	TF	211.02	33.54	13000B15000		
Common Route									
MARCS	295352.04N / 0975140.70W	Y		IF			13000B15000		MARCS.QERVO2
PGOUT	295207.96N / 0975658.71W	Y	FB	TF	249.44	04.92	11000B13000	AT 280K	
QERVO	295027.75N / 0980158.46W	Y	FB	TF	249.04	04.65			
Common Route									
MARCS	295352.04N / 0975140.70W	Y		IF			13000B15000		MARCS.QERVO2
PGOUT	295207.96N / 0975658.71W	Y	FB	TF	249.44	04.92	11000B13000	AT 280K	
QERVO	295027.75N / 0980158.46W	Y	FB	TF	249.04	04.65			
POYYO	294944.86N / 0980407.36W	Y	FO	TF	249.12	02.00	AT 10000		
K5C1,KBAZ,KCVB, KPEZ,KRND,KSKF, KSSF				FM	249.12				
Runway Transition									
QERVO	295027.75N / 0980158.46W	Y		IF					
TEXNN	293902.62N / 0981328.53W	Y	FB	TF	221.36	15.17	8000B9000		
JEFRE	293433.54N / 0981758.57W	Y	FB	TF	221.27	05.95	AT/ABOVE 7000		

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STAR (DATA RECORD)

Arrival Name QERVO (RNAV)		Number TWO		STAR Computer Code MARCS.QERVO2			Superseded Number ONE		Dated 01/25/2024	Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS	
MCRTY	292831.05N / 0982401.46W	Y	FO	TF	221.23	08.01	AT 6000	AT 210K		
KSAT:RWY 4				FM	221.23					
Runway Transition										
QERVO	295027.75N / 0980158.46W	Y		IF						
TAHKO	294801.20N / 0980918.40W	Y	FB	TF	249.12	06.83	AT/BELOW 11000			
FJITA	294531.17N / 0981649.01W	Y	FB	TF	249.14	07.00	AT/BELOW 8000			
TRTLA	294354.29N / 0982138.62W	Y	FB	TF	249.05	04.50				
SALZA	294232.60N / 0982551.34W	Y	FB	TF	249.70	03.91	AT 6000	AT 210K		
DOMNK	294248.63N / 0983413.45W	Y	FB	TF	272.13	07.29				
CARNE	294341.83N / 0983522.29W	Y	FO	TF	311.53	01.33	AT 6000			
KSAT:RWY 13R				FM	311.53					
Runway Transition										
QERVO	295027.75N / 0980158.46W	Y		IF						
TRITP	295245.11N / 0982048.14W	Y	FO	TF	278.02	16.53	AT 7000	AT 210K		
KSAT:RWY 22				FM	278.02					
Runway Transition										
QERVO	295027.75N / 0980158.46W	Y		IF						
DERRR	294404.08N / 0981132.49W	Y	FB	TF	232.58	10.49				
COMUT	293708.44N / 0982134.69W	Y	FB	TF	231.72	11.14	AT 6000	AT 210K		
ALRGI	293200.61N / 0982018.87W	Y	FB	TF	167.84	05.24				
XLANT	292900.76N / 0981627.62W	Y	FO	TF	131.62	04.50	AT 6000			
KSAT:RWY 31L				FM	131.62					