

US DEPARTMENT of TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
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.
 Distances are in nautical miles (NM). Graphic depiction attached.

Arrival Name KEFFR RNAV	Number FOUR	STAR Computer Code KEFFR.KEFFR4	Superseded Number THREE	Dated 13 NOV 2014	Effective Date 05 JAN 2017
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TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Mag Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
NEEDLES	EED.KEFFR4	EED VORTAC	EED VORTAC						
			CADEZ	220.38	54.58	FL180	6000		
			FOVOL	219.86	14.84	17000	6000		
			PIPLE	236.34	33.17	17000	7800		AT/ABOVE FL240
			PSP VORTAC	264.62	11.87	14000	7800		
			KUCER	261.33	14.12	14000	13000		AT/ABOVE 15000
			BANDS	261.14	06.88	13100			BETWEEN 14000 AND 15000
			KEFFR	249.94	30.08	8000	7400		AT 8000
HECTOR	HEC.KEFFR4	HEC VORTAC	HEC VORTAC						
			EDANE	213.46	12.93	FL180	8200		
			LUCER	213.45	13.65	13000	8400		
			RESOR	213.29	08.12	12000	10100		
			BASRE	213.74	06.56	12000	10800		
			CAARR	187.22	09.37	10800			AT 13000
			EDGGR	189.05	09.95	8700			AT 11000
			KEFFR	215.92	17.23	7600	5300		AT 8000
HIMDU	HIMDU.KEFFR4	HIMDU	HIMDU						
			WURMO	243.41	34.76	FL180	6400		
			FOVOL	243.04	45.74	17000	6600		
			PIPLE	236.34	33.17	17000	7800		AT/ABOVE FL240
			PSP VORTAC	264.62	11.87	14000	7800		
			KUCER	261.33	14.12	14000	13000		AT/ABOVE 15000
			BANDS	261.14	06.88	13100			BETWEEN 14000 AND 15000
			KEFFR	249.94	30.08	8000	7400		AT 8000
JOLAR	JOLAR.KEFFR4	JOLAR	JOLAR						AT/BELOW FL340
			WEMIS	264.10	45.97	FL180	5300		
			CIBUM	263.38	32.18	17000	6200		
			PIPLE	263.15	31.37	17000	7700		AT/ABOVE FL240

QUALITY
17
CHECKED

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Arrival Name	Number			STAR Computer Code	Superseded Number			Dated	Effective Date
KEFFR RNAV	FOUR			KEFFR.KEFFR4	THREE			13 NOV 2014	05 JAN 2017
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Mag Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
			PSP VORTAC	264.62	11.87	14000	7800		
			KUCER	261.33	14.12	14000	13000		AT/ABOVE 15000
			BANDS	261.14	06.88	13100			BETWEEN 14000 AND 15000
			KEFFR	249.94	30.08	8000	7400		AT 8000
MARUE	MARUE.KEFFR4	MARUE	MARUE						
			GLACO	239.04	56.62	FL180	8500		
			HEC VORTAC	238.28	26.00	FL180	6800		
			EDANE	213.46	12.93	FL180	8200		
			LUCER	213.45	13.65	13000	8400		
			RESOR	213.29	08.12	12000	10100		
			BASRE	213.74	06.56	12000	10800		
			CAARR	187.22	09.37	10800			AT 13000
			EDGGR	189.05	09.95	8700			AT 11000
			KEFFR	215.92	17.23	7600	5300		AT 8000
NATEE	NATEE.KEFFR4	NATEE	NATEE						
			HEC VORTAC	215.66	72.81	FL200	10200		
			EDANE	213.46	12.93	FL180	8200		
			LUCER	213.45	13.65	13000	8400		
			RESOR	213.29	08.12	12000	10100		
			BASRE	213.74	06.56	12000	10800		
			CAARR	187.22	09.37	10800			AT 13000
			EDGGR	189.05	09.95	8700			AT 11000
			KEFFR	215.92	17.23	7600	5300		AT 8000
PIPLE	PIPLE.KEFFR4	PIPLE	PIPLE						AT/ABOVE FL240
			PSP VORTAC	264.62	11.87	14000	7800		
			KUCER	261.33	14.12	14000	13000		AT/ABOVE 15000
			BANDS	261.14	06.88	13100			BETWEEN 14000 AND 15000
			KEFFR	249.94	30.08	8000	7400		AT 8000

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KEFFR RNAV	FOUR	KEFFR.KEFFR4	THREE	13 NOV 2014	05 JAN 2017

ARRIVAL ROUTE DESCRIPTION:

LANDING KSNA/KLGB: FROM KEFFR ON TRACK 238.28/3.20 TO JWARD (MEA 7600), THEN ON TRACK 238.28. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

PROCEDURAL DATA NOTES:

NOTE: RADAR REQUIRED

NOTE: RNAV 1

NOTE: DME/DME/IRU OR GPS REQUIRED

NOTE: AIRCRAFT REQUESTING THE SNA RNAV (RNP) Z RWY 20R APPROACH EXPECT KEFFR DIRECT BONVY.

FIXES AND/OR HOLDING PATTERNS:

CHART: BONVY

CHART HOLDING AT CADEZ: HOLD NE, RT, 242.00 INBOUND, 10 NM LEGS.

CHART HOLDING AT GLACO: HOLD NE, LT, 237.00 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

SOCAL APP CON (SNA AND LGB)

ATIS (SNA AND LGB)

AIRPORTS SERVED:

JOHN WAYNE AIRPORT-ORANGE COUNTY, SANTA ANA, CA

LONG BEACH /DAUGHERTY FIELD/, LONG BEACH, CA

LOST COMMUNICATIONS PROCEDURE:REMARKS:ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)

REFERENCE MAGNETIC VARIATION = KSNA 12E/2015

DO NOT CHART MOCAS



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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
KEFFR RNAV	FOUR	KEFFR.KEFFR4	THREE	13 NOV 2014	05 JAN 2017
<u>FLIGHT INSPECTED BY:</u>					
ERIC WEINGAERTNER		FICO	10/26/2016	Digitally signed by BEV L BORDY	
Name		Organization	Date	Nov 01, 2016	Signature
<u>DEVELOPED BY:</u>					
KEVIN POOL		SUPPORT MANAGER, LOS ANGELES ARTCC		Digitally signed by PATRICK J MULQUEEN	
Name		Organization	Date	Oct 13, 2016	Signature
<u>APPROVED BY:</u>					
MARLON J. ROBINSON, MANAGER		AJV-5440		Digitally signed by PATRICK J MULQUEEN	
Name		Organization	Date	Oct 13, 2016	Signature

CHANGES:

1. ADDED HEC ENROUTE TRANSTION.
2. ADDED PIPLE ENROUTE TRANSTION.
3. ATC RESTRICTION "AT OR BELOW FL240" DELETED AT EDANE.
4. ADDED MOCA DATA

REASONS:

- 1-2. PROVIDES FOR MORE EFFICIENT MANAGEMENT OF ARRIVALS ORIGINATING CLOSER TO KSNA/KLGB.
3. NO LONGER REQUIRED.
4. REQUIRED BY 8260.19G.



US DEPARTMENT of TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
STAR (DATA RECORD)

Arrival Name KEFFR RNAV	Number FOUR	STAR Computer Code KEFFR.KEFFR4	Superseded Number THREE	Dated 13 NOV 2014	Effective Date 05 JAN 2017
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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
EED VORTAC	344557.62N / 1142826.78W	Y		IF					EED.KEFFR4
CADEZ	341223.63N / 1152034.34W	Y	FB	TF	232.38	54.58			
FOVOL	340312.00N / 1153437.00W	Y	FB	TF	231.86	14.84			
PIPLE	335050.67N / 1161137.62W	Y	FB	TF	248.34	33.17	AT/ABOVE FL240		
PSP VORTAC	335212.05N / 1162547.22W	Y	FB	TF	276.62	11.87			
KUCER	335300.19N / 1164242.98W	Y	FB	TF	273.33	14.12	AT/ABOVE 15000		
BANDS	335322.59N / 1165058.13W	Y	FB	TF	273.14	06.88	14000B15000	AT 280K	
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	261.94	30.08	AT 8000	AT 220K	

En Route Transition									
HEC VORTAC	344749.26N / 1162746.52W	Y		IF					HEC.KEFFR4
EDANE	343843.64N / 1163856.69W	Y	FB	TF	225.46	12.93			
LUCER	342907.69N / 1165042.51W	Y	FB	TF	225.45	13.65			
RESOR	342324.22N / 1165740.79W	Y	FB	TF	225.29	08.12			
BASRE	341849.00N / 1170321.00W	Y	FB	TF	225.74	06.56			
CAARR	340957.07N / 1170704.08W	Y	FB	TF	199.22	09.37	AT 13000	AT 280K	
EDGGR	340039.00N / 1171122.00W	Y	FB	TF	201.05	09.95	AT 11000		
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	227.92	17.23	AT 8000	AT 220K	

En Route Transition									
HIMDU	342406.00N / 1140051.00W	Y		IF					HIMDU.KEFFR4
WURMO	341513.00N / 1144126.00W	Y	FB	TF	255.41	34.76			
FOVOL	340312.00N / 1153437.00W	Y	FB	TF	255.04	45.74			
PIPLE	335050.67N / 1161137.62W	Y	FB	TF	248.34	33.17	AT/ABOVE FL240		
PSP VORTAC	335212.05N / 1162547.22W	Y	FB	TF	276.62	11.87			
KUCER	335300.19N / 1164242.98W	Y	FB	TF	273.33	14.12	AT/ABOVE 15000		
BANDS	335322.59N / 1165058.13W	Y	FB	TF	273.14	06.88	14000B15000	AT 280K	
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	261.94	30.08	AT 8000	AT 220K	

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
JOLAR	334030.00N / 1140051.00W	Y		IF			AT/BELOW FL340		JOLAR.KEFFR4
WEMIS	334511.68N / 1145540.14W	Y	FB	TF	276.10	45.97			
CIBUM	334807.00N / 1153407.00W	Y	FB	TF	275.38	32.18			
PIPLE	335050.67N / 1161137.62W	Y	FB	TF	275.15	31.37	AT/ABOVE FL240		
PSP VORTAC	335212.05N / 1162547.22W	Y	FB	TF	276.62	11.87			
KUCER	335300.19N / 1164242.98W	Y	FB	TF	273.33	14.12	AT/ABOVE 15000		
BANDS	335322.59N / 1165058.13W	Y	FB	TF	273.14	06.88	14000B15000	AT 280K	
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	261.94	30.08	AT 8000	AT 220K	

En Route Transition									
MARUE	351523.00N / 1145255.00W	Y		IF					MARUE.KEFFR4
GLACO	345640.05N / 1155803.32W	Y	FB	TF	251.04	56.62			
HEC VORTAC	344749.26N / 1162746.52W	Y	FB	TF	250.28	26.00			
EDANE	343843.64N / 1163856.69W	Y	FB	TF	225.46	12.93			
LUCER	342907.69N / 1165042.51W	Y	FB	TF	225.45	13.65			
RESOR	342324.22N / 1165740.79W	Y	FB	TF	225.29	08.12			
BASRE	341849.00N / 1170321.00W	Y	FB	TF	225.74	06.56			
CAARR	340957.07N / 1170704.08W	Y	FB	TF	199.22	09.37	AT 13000	AT 280K	
EDGGR	340039.00N / 1171122.00W	Y	FB	TF	201.05	09.95	AT 11000		
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	227.92	17.23	AT 8000	AT 220K	

En Route Transition									
NATEE	353714.00N / 1152226.00W	Y		IF					NATEE.KEFFR4
HEC VORTAC	344749.26N / 1162746.52W	Y	FB	TF	227.66	72.81			
EDANE	343843.64N / 1163856.69W	Y	FB	TF	225.46	12.93			
LUCER	342907.69N / 1165042.51W	Y	FB	TF	225.45	13.65			
RESOR	342324.22N / 1165740.79W	Y	FB	TF	225.29	08.12			
BASRE	341849.00N / 1170321.00W	Y	FB	TF	225.74	06.56			
CAARR	340957.07N / 1170704.08W	Y	FB	TF	199.22	09.37	AT 13000	AT 280K	

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
EDGGR	340039.00N / 1171122.00W	Y	FB	TF	201.05	09.95	AT 11000		
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	227.92	17.23	AT 8000	AT 220K	

En Route Transition									
PIPLE	335050.67N / 1161137.62W	Y		IF			AT/ABOVE FL240		PIPLE.KEFFR4
PSP VORTAC	335212.05N / 1162547.22W	Y	FB	TF	276.62	11.87			
KUCER	335300.19N / 1164242.98W	Y	FB	TF	273.33	14.12	AT/ABOVE 15000		
BANDS	335322.59N / 1165058.13W	Y	FB	TF	273.14	06.88	14000B15000	AT 280K	
KEFFR	334904.00N / 1172643.00W	Y	FB	TF	261.94	30.08	AT 8000	AT 220K	

Common Route									
KEFFR	334904.00N / 1172643.00W	Y		IF			AT 8000	AT 220K	KEFFR.KEFFR4
JWARD	334759.00N / 1173020.00W	Y	FO	TF	250.28	03.20			
KLGB,KSNA				FM	250.28				RECOMMENDED NAVAID: UTI VOR/DME

