

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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
EMZOH (RNAV)	FOUR	EMZOH.EMZOH4	THREE	12/10/2015	

TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
RGOOD	RGOOD.EMZOH4	RGOOD	RGOOD						
			EMZOH	302.13	52.27	11000	6200		AT/ABOVE FL280

ARRIVAL ROUTE DESCRIPTION:

OAK: FROM EMZOH ON TRACK 304.29/19.16 TO CROSS MYJAW AT OR ABOVE FL220 AND AT 280 KIAS, THEN ON TRACK 304.33/28.76 TO CROSS SKIZM BETWEEN 15000 AND FL190.

LANDING OAK RWY 12: FROM SKIZM ON TRACK 321.98/12.25 TO CROSS EMAAA BETWEEN 11000 AND 14000, THEN ON TRACK 321.92/12.25 TO CROSS WNDML AT 9000 AND AT 240 KIAS, THEN ON TRACK 321.87/12.25 TO CROSS FOOTO BETWEEN 7000 AND 8000, THEN ON TRACK 313.56/14.62 TO CROSS KEENR AT 7000, THEN ON TRACK 261.83/10.66 TO CROSS LOHGN AT 6000 AND AT 200 KIAS, THEN ON TRACK 260.76/4.00 TO CROSS WHYEE AT OR ABOVE 5000, THEN ON TRACK 260.79/5.00 TO CROSS HIRMO AT 4000, THEN ON TRACK 260.79. EXPECT RNAV (RNP) Z RWY 12 APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING OAK RWY 28L/R, 30: FROM SKIZM ON TRACK 303.13/20.00 TO CROSS MYRIB BETWEEN 9000 AND 10000 AND AT 240 KIAS, THEN ON TRACK 303.69/5.17 TO MYHIP, THEN ON TRACK 291.65/4.23 TO CROSS MYNEE AT 7000 AND AT 200 KIAS, THEN ON TRACK 291.62/5.20 TO CROSS MYSHN AT OR ABOVE 6200. EXPECT ILS OR RNAV APPROACH RWY 28L/R, 30 APPROACH.

LANDING HWD: FROM EMZOH ON TRACK 304.29/19.16 TO CROSS MYJAW AT OR ABOVE FL220 AND AT 280 KIAS, THEN ON TRACK 304.33/28.76 TO CROSS SKIZM BETWEEN 15000 AND FL190, THEN ON TRACK 303.13/20.00 TO CROSS MYRIB BETWEEN 9000 AND 10000 AND AT 240 KIAS, THEN ON TRACK 303.69/5.17 TO MYHIP, THEN ON TRACK 291.65/4.23 TO CROSS MYNEE AT 7000 AND AT 200 KIAS, THEN ON TRACK 271.33/3.20 TO CROSS SHRRP AT OR ABOVE 6200, THEN ON TRACK 271.33. 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: EXPECT TO RECEIVE "DESCEND VIA" CLEARANCE FROM OAKLAND CENTER. NORTHERN CALIFORNIA TRACON WILL ASSIGN LANDING RUNWAY.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT MYJAW: HOLD SE, RT, 304.29 INBOUND, 10 NM LEGS.

CHART HOLDING AT WNDML: HOLD SE, RT, 321.87 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

CHART: ZOA, OAKLAND GND CON, OAKLAND ATCT, HAYWARD GND CON, HAYWARD ATCT.

AIRPORTS SERVED:

AIRPORT ID	CITY	STATE
OAK	OAKLAND	CA
HWD	HAYWARD	CA

LOST COMMUNICATIONS PREFERENCES:

REMARKS:

ROC REDUCTION TAKEN FOR RWY 12 TRANSITION, KEENR-LOHGN SEGMENT.



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
EMZOH (RNAV)	FOUR	EMZOH.EMZOH4	THREE	12/10/2015	

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)
MAG VAR: OAK 14E/2015.
CHART AT MYSHN TERMINUS: OAK LDG RWY 28L/R, 30
CHART AT HIRMO TERMINUS: OAK LDG RWY 12
CHART AT SHRRP TERMINUS: LDG HWD

FLIGHT INSPECTED BY:

ORGANIZATION: **DATE:**

JOSEPH R JAQUISH

AJF

01/22/2025

Flight Inspected Signature:

Digitally signed by

ALLAN WILL

Mar 12, 2025

DEVELOPED BY:

TODD DAMRON

AJV-A423

10/01/2024

Developed By Signature:

Digitally signed by

TODD V DAMRON

Feb 04, 2025

APPROVED BY:

ALLAN WILL

AJV-A423

Approved By Signature:

Digitally signed by

ALLAN WILL

Mar 12, 2025

CHANGES:

1. ADDED OAK RWY 12 TRANSITION.
2. ADDED SPEED RESTRICTION AT EMZOH OF AT 280 KIAS.
3. ADDED SPEED RESTRICTION AT MYNEE OF AT 210 KIAS.
4. ADDED HOLDING AT WNDML.
5. RGOOD - EMZOH MOCA RAISED FROM 6100 TO 6200.
6. REMOVED MEA/MOCA VALUES FROM ARRIVAL ROUTE DESCRIPTION.
7. REMOVED "DO NOT CHART MOCA'S" FROM ADDITIONAL FLIGHT DATA.
8. ADDED ROC REDUCTION REMARK.
9. ADDED HWD SATELLITE ARPT WITH ASSOCIATED TRANSITION DATA TO STAR.
10. COMBINED AND REVISED RWY 28L/R, 30 FIXES AND TRANSITIONS; FIXES REMOVED INCLUDE CYMBL, FIXME, MYCAF, BIGPD, FRNNY.
11. AIRPORTS SERVED: REMOVED NAME AND ADDED IDENT.

REASONS:

- 1 - 5: ATC REQUESTED.
6. NO LONGER DOCUMENTED.
7. IAW 8260.19J, 4-5-12B(8).
- 8: ROC REDUCTION TAKEN TO MAINTAIN CARDINAL ALTITUDE.
9. ATC REQUESTED.
10. ATC REQUESTED DUE TO REMOVING AND COMBINING RNAV STAR'S.
11. IAW 8260.19J, 4-5-12G.



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
EMZOH (RNAV)	FOUR	EMZOH.EMZOH4	THREE	12/10/2015	

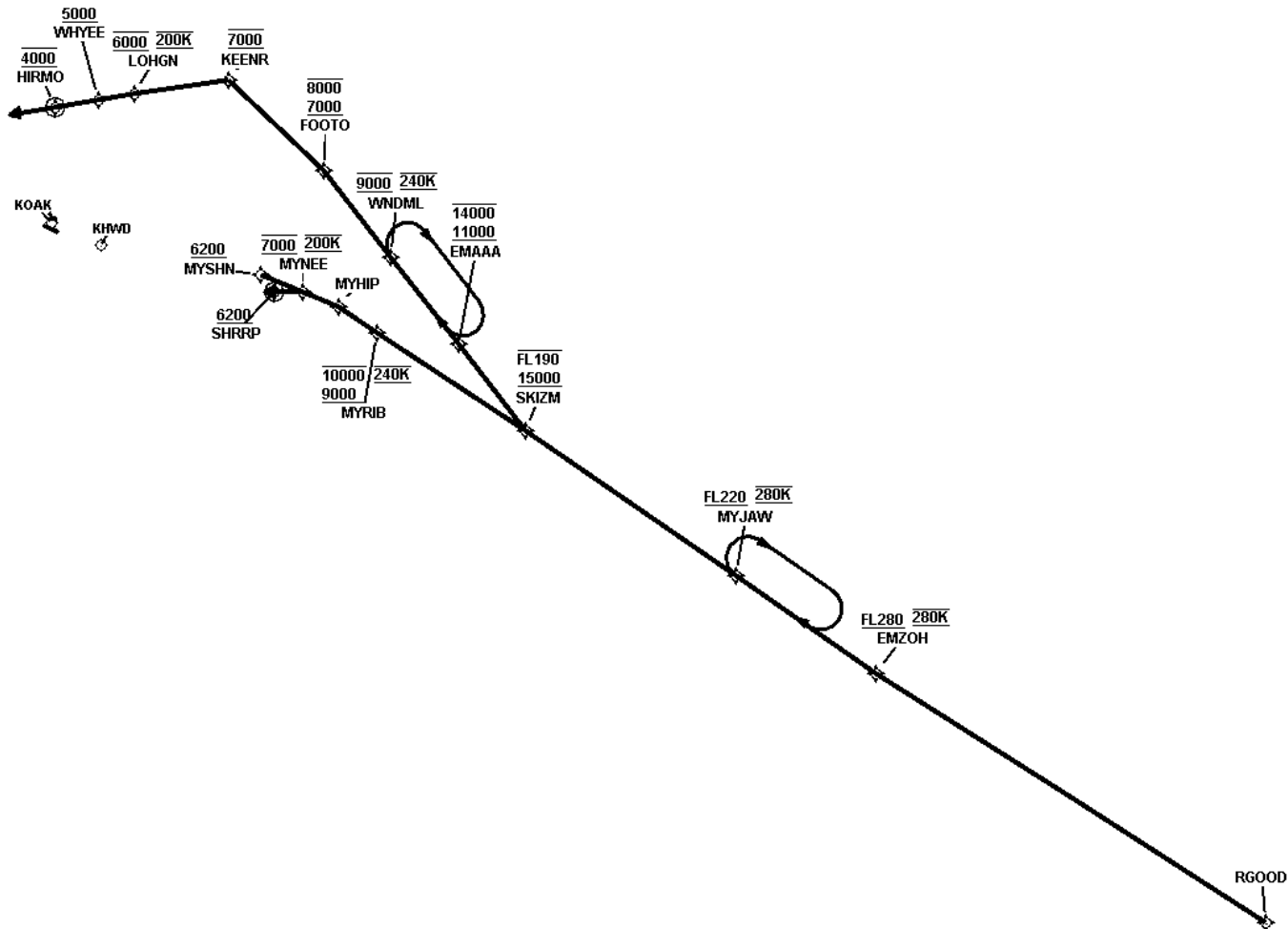
01/14/25: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/1/24.
1. FIX LOHGN/MYNEE: SPEED RESTRICTION CHANGED FROM 210 KIAS TO 200 KIAS WITH WAIVER DEVELOPED AND SUBMITTED.



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
EMZOH (RNAV)	FOUR	EMZOH.EMZOH4	THREE	12/10/2015	
Graphic Depiction 1					



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)

Arrival Name EMZOH (RNAV)	Number FOUR		STAR Computer Code EMZOH.EMZOH4		Superseded Number THREE		Dated 12/10/2015		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>
En Route Transition									
RGOOD	355432.01N / 1195040.77W	Y		IF					RGOOD.EMZOH4
EMZOH	363207.99N / 1203537.79W	Y	FB	TF	316.13	52.27	AT/ABOVE FL280	AT 280K	
Common Route									
EMZOH	363207.99N / 1203537.79W	Y		IF			AT/ABOVE FL280	AT 280K	EMZOH.EMZOH4
MYJAW	364626.36N / 1205130.06W	Y	FB	TF	318.29	19.16	AT/ABOVE FL220	AT 280K	
SKIZM	370754.63N / 1211524.76W	Y	FB	TF	318.33	28.76	15000BFL190		
Common Route									
EMZOH	363207.99N / 1203537.79W	Y		IF			AT/ABOVE FL280	AT 280K	EMZOH.EMZOH4
MYJAW	364626.36N / 1205130.06W	Y	FB	TF	318.29	19.16	AT/ABOVE FL220	AT 280K	
SKIZM	370754.63N / 1211524.76W	Y	FB	TF	318.33	28.76	15000BFL190		
MYRIB	372233.92N / 1213229.08W	Y	FB	TF	317.13	20.00	9000B10000	AT 240K	
MYHIP	372623.69N / 1213651.51W	Y	FB	TF	317.69	05.17			
MYNEE	372851.63N / 1214110.45W	Y	FB	TF	305.65	04.23	AT 7000	AT 200K	
SHRRP	372942.39N / 1214503.13W	Y	FO	TF	285.33	03.20	AT/ABOVE 6200		
KHWD				FM	285.33				
Runway Transition									
SKIZM	370754.63N / 1211524.76W	Y		IF			15000BFL190		
EMAAA	371906.65N / 1212139.83W	Y	FB	TF	335.98	12.25	11000B14000		
WNDML	373018.32N / 1212756.75W	Y	FB	TF	335.92	12.25	AT 9000	AT 240K	
FOOTO	374129.64N / 1213415.31W	Y	FB	TF	335.87	12.25	7000B8000		
KEENR	375350.51N / 1214409.87W	Y	FB	TF	327.56	14.62	AT 7000		
LOHGN	375454.79N / 1215733.96W	Y	FB	TF	275.83	10.66	AT 6000	AT 200K	
WHYEE	375514.63N / 1220236.22W	Y	FB	TF	274.76	04.00	AT/ABOVE 5000		
HIRMO	375539.54N / 1220854.06W	Y	FO	TF	274.79	05.00	AT 4000		
KOAK:RWY 12				FM	274.79				

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)

Arrival Name EMZOH (RNAV)		Number FOUR		STAR Computer Code EMZOH.EMZOH4			Superseded Number THREE		Dated 12/10/2015	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>	
Runway Transition										
SKIZM	370754.63N / 1211524.76W	Y		IF			15000BFL190			
MYRIB	372233.92N / 1213229.08W	Y	FB	TF	317.13	20.00	9000B10000	AT 240K		
MYHIP	372623.69N / 1213651.51W	Y	FB	TF	317.69	05.17				
MYNEE	372851.63N / 1214110.45W	Y	FB	TF	305.65	04.23	AT 7000	AT 200K		
MYSHN	373153.46N / 1214629.30W	Y	FB	TF	305.62	05.20	AT/ABOVE 6200			
KOAK:RWY 28L,RWY 28R,RWY 30										