

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> OAK	<u>PROCEDURE NAME</u> RNAV (RNP) Z RWY 28L	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> OAKLAND	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 9	<u>TDZE</u> 9	<u>SUPERSEDED</u> RNAV (RNP) Z RWY 28L	<u>DATED</u> 04/30/2015	<u>MAG VAR</u> 14E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ORIGINAL/AMENDMENT</u> 2	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>EPOCH YEAR</u> 2015
		<u>ACTUAL EFFECTIVE DATE</u> 12 JUNE 2025	<u>CANCEL/SUSPEND</u>	

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
MYSHN	IAF	CYMBL		TF	FB	1.00	291.71	4.04	5300
CYMBL		JUPAP		TF	FB	1.00	294.38	6.71	3700
BBUBB	IAF	JUPAP		TF	FB	1.00	237.75	5.80	3700
FFIST	IAF	JUPAP		TF	FB	1.00	262.71	12.82	3700
JUPAP	IF	HEDER		TF	FB	1.00	278.32	4.37	2800
HEDER		VODSY	PFAF	TF	FB	1.00	278.28	2.83	1900
VODSY	PFAF	RW28L	MAP	TF	FO	0.30	278.23	5.77	
RW28L	MAP	OPLIE		TF	FB	1.00	278.17	9.48	
OPLIE		REBAS		TF	FO	1.00	347.99	9.53	3000

MISSED APPROACH

MAP:

RNP: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 ON TRACK 278.17 TO OPLIE AND ON TRACK 347.99 TO REBAS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. PROFILE STARTS AT JUPAP					
3. FAC: 278.23	PFAF: VODSY		DIST PFAF TO MAP:	DIST PFAF TO THLD:	
4. MIN ALT: JUPAP 3700, HEDER 2800, VODSY 1900					
5. DIST TO THLD FROM PFAF: 5.77	MM: IM:	150 HAT:	297 HAT:	0.76	GS ANT:
6. MIN GP INCPT: 1900	GP ALT AT PFAF: VODSY 1900	OM:	MM:	IM:	
7. GP ANGLE: 3.00	34:1: IS NOT CLEAR 20:1: IS CLEAR	TCH: 55.0			
8. MSA FROM: RW28L 5100					

QUALITY
19
CHECKED

PBN REQUIREMENTS NOTE:

RNP AR APCH - GPS. AUTHORIZATION REQUIRED.

NOTES:

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW 2°C OR ABOVE 54°C.
CHART SPEED ICON IN PLANVIEW AT BBUBB: MAX 200 KIAS.
CHART SPEED ICON IN PLANVIEW AT FFIST: MAX 200 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD S, RT, 343.64 INBOUND.
CHART AT OR ABOVE 5300 AT CYMBL.
CHART AT OR ABOVE 6200 AT MYSHN.
CHART AT OR ABOVE 3700 AT JUPAP.
CHART AT OR ABOVE 6000 AT BBUBB.
CHART AT OR BELOW 9000 AND AT OR ABOVE 7000 AT FFIST.
CHART AT OR ABOVE 2800 AT HEDER.

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
AUTHORIZATION REQUIRED															
RNP 0.10 DA	306	4500	297	306	4500	297	306	4500	297	306	4500	297			
RNP 0.15 DA	359	5500	350	359	5500	350	359	5500	350	359	5500	350			
RNP 0.30 DA	425	6000	416	425	6000	416	425	6000	416	425	6000	416			



CHANGES - REASONS

- 1. TERMINAL ROUTES ADDED INITIAL FFIST TO JUPAP – PER ATC REQUEST
- 2. TERMINAL ROUTES ADDED INITIAL MYSHN TO CYMBL – PER ATC REQUEST
- 3. NOTES ADDED “CHART SPEED ICON IN PLANVIEW AT FFIST: MAX 200 KIAS” – PER ATC REQUEST
- 4. NOTES ADDED “CHART SPEED ICON IN PLANVIEW AT BBUBB: MAX 200 KIAS” – PER ATC REQUEST
- 5. TERMINAL ROUTES INTERMEDIATE JUPAP TO HEDER RNP CHANGED FROM 0.9 TO 1.0 – PER ATC REQUEST
- 6. TERMINAL ROUTES INTERMEDIATE STEPDOWN HEDER TO VODSY RNP CHANGED FROM 0.6 TO 1.0 – PER FPT AND ATC REQUEST
- 7. TERMINAL ROUTES HEDER TO VODSY MAG BRG CHANGED FROM 278.27 TO 278.28 – PFAF VODSY RELOCATED TO BE ALIGNED WITH ANGLE/TCH 3.0/55’
- 8. TERMINAL ROUTES FINAL VODSY TO RW28L MAG BRG CHANGED FROM 278.24 TO 278.23 – PFAF VODSY RELOCATED TO BE ALIGNED WITH ANGLE/TCH 3.0/55’
- 9. PROFILE LINE 3 CHANGED FROM 278.24 TO 278.23 – FAF VODSY RELOCATED IAW 8260.19J 8-6-7
- 10. PROFILE LINE 5 ADDED “297 HAT: 0.76” AND CHANGED FROM “DIST TO THLD FROM OM” TO “DIST TO THLD FROM PFAF” – IAW 8260.19J 8-6-7
- 11. PROFILE LINE 7 ADDED “20:1 IS CLEAR” – IAW 8260.19J 8-6-7
- 12. PROFILE LINE 7 CHANGED FROM “34:1 IS CLEAR” TO “34:1 IS NOT CLEAR” – IAW 8260.19J 8-6-7 AND NEW SURVEY
- 13. MINIMUMS ADDED RNP 0.10 MINIMA – PER ATC REQUEST
- 14. MINIMUMS RNP 0.15 DA/HAT CHANGED FROM 341/332 TO 359/350 – NEW FINAL CONTROLLING OBSTACLE
- 15. MINIMUMS RNP 0.15 VIS CHANGED FROM RVR 5300 FT TO RVR 5500 FT – IAW 8260.3F VISIBILITY TABLE 3-3-1
- 16. MINIMUMS RNP 0.30 DA/HAT CHANGED FROM 399/390 TO 425/416 – NEW FINAL CONTROLLING OBSTACLE
- 17. MINIMUMS RNP 0.30 VIS CHANGED FROM 1 1/4SM TO RVR 6000 FT – IAW 8260.3F VISIBILITY TABLE 3-3-1
- 18. NOTES REMOVED “CHART PLANVIEW NOTES AT BBUBB AND CYMBL: (RNP 0.60) – NO LONGER REQUIRED
- 19. NOTES CHANGED “CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT” TO “CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})” – IAW 8260.19J 8-6-10
- 20. NOTES CHANGED “CHART NOTE: GPS REQUIRED” TO “RNP APCH – GPS. AUTHORIZATION REQUIRED.” AND MOVED NOTE TO PBN REQUIREMENTS NOTE – IAW 8260.19J 8-6-8
- 21. NOTES CHANGED “CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW 0°C (32°F) OR ABOVE 54°C (130°F)” TO “CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW 2°C OR ABOVE 54°C” – IAW 8260.19J 8-6-10 AND NEW TEMPERATURE STUDY
- 22. ADDITIONAL FLIGHT DATA REMOVED CHART MANDATORY 5300 AT CYMBL – NO LONGER REQUIRED
- 23. ADDITIONAL FLIGHT DATA REMOVED CHART MANDATORY 5000 AT BBUBB – NO LONGER REQUIRED
- 24. ADDITIONAL FLIGHT DATA REMOVED “ROUTE TYPE QUALIFIER1: F” – NO LONGER REQUIRED
- 25. ADDITIONAL FLIGHT DATA REMOVED “ROUTE TYPE: A, H – NO LONGER REQUIRED
- 26. ADDITIONAL FLIGHT DATA REMOVED “ROUTE TYPE QUALIFIER2: S” – NO LONGER REQUIRED
- 27. ADDITIONAL FLIGHT DATA REMOVED “#TCH 63.2 MSL (DO NOT CHART)” NO LONGER REQUIRED
- 28. ADDITIONAL FLIGHT DATA ADDED “CHART AT OR ABOVE 5300 AT CYMBL” – PER ATC REQUEST
- 29. ADDITIONAL FLIGHT DATA ADDED “CHART AT OR ABOVE 6200 AT MYSHN” – PER ATC REQUEST
- 30. ADDITIONAL FLIGHT DATA ADDED “CHART AT OR ABOVE 3700 AT JUPAP” – PER ATC REQUEST
- 31. ADDITIONAL FLIGHT DATA ADDED “CHART AT OR ABOVE 6000 AT BBUBB” – PER ATC REQUEST
- 32. ADDITIONAL FLIGHT DATA ADDED “CHART AT OR BELOW 9000 AND AT OR ABOVE 7000 AT FFIST” – PER ATC & FPT REQUEST
- 33. ADDITIONAL FLIGHT DATA ADDED “CHART AT OR ABOVE 2800 AT HEDER” – PER ATC REQUEST

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZOA, AMGR, ST AERO, NORCAL APP CON, OAK ATCT, ATA

FLIGHT CHECKED BY

WENDI S GIMA

Digitally signed by

CASEY D HILL

Apr 24, 2025

OFFICE

AJF

DATE

04/22/2025

DEVELOPED BY

CHARLES HIRST

Digitally signed by

CHARLES HIRST

Feb 06, 2025

OFFICE

AJV-A431

DATE

10/17/2024

APPROVED BY

ROBERT G HAMILTON

Digitally signed by

CASEY D HILL

Apr 24, 2025

OFFICE

AJV-A431

DATE

TITLE
MANAGER

