

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) 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> RAL	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> RIVERSIDE	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 819	<u>TDZE</u> 819	<u>SUPERSEDED</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 12/03/2020
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>MAG VAR</u> 14E
				<u>EPOCH YEAR</u> 2000
				<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>
BANDS	IAF	CUGVI		TF	FB	1.00	258.35	9.35	8600
CUGVI		WENVA		TF	FB	1.00	258.24	7.00	5100
WENVA	IF	PAYIG		TF	FB	1.00	269.20	3.23	4100
PAYIG		LAYEY		TF	FB	1.00	269.17	3.15	3100
LAYEY	FAF	RW27	MAP	TF	FO	0.30	269.14	6.85	
RW27	MAP	1219 MSL		CA			269.14		
1219 MSL		ICIYE		DF	FB	1.00			
ICIYE		PRADO		TF	FO	1.00	245.62	13.87	4000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW27

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT ICIYE AND ON TRACK 245.62 TO PRADO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT
- SIDE OF COURSE
- OUTBOUND
- FT WITHIN
- MILES OF (IAF)
- PROFILE STARTS AT WENVA
- FAC: 269.14 FAF: LAYEY DIST FAF TO MAP: 6.85 DIST FAF TO THLD: 6.85
- MIN ALT: WENVA 5100, PAYIG 4100, LAYEY 3100
- DIST TO THLD FROM OM: MM: IM: 150 HAT: 418 HAT: 1.13 GS ANT: MM: IM:
- MIN GP INCPT: 3100 GP ALT AT PFAF: LAYEY 3100 OM: MM: IM:
- GP ANGLE: 3.01 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 50.0
- MSA FROM: RW27 12100

QUALITY
14
CHECKED

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 2°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSi AND RNAV GLIDEPATH NOT COINCIDENT (VGSi ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: CIRCLING NA FOR CAT D NORTH OF RWY 9-27.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BANDS ON V372 NORTHEAST BOUND AND ON V16-370 EASTBOUND.

ADDITIONAL FLIGHT DATA:

HOLD E, RT, 256.38 INBOUND.
CHART 1883 WATER TOWER (06-285246) 335430N/1171814W.
CHART VDP AT 4.10 NM TO RW27.
WAAS CHANNEL # 82201
REFERENCE PATH ID: W27A
LTP HAE: 216.3 M
FAS OBST: 1879 AAO 335517.27N/1172006.36W

MINIMUMS:

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

ALTERNATE: NA ☐ CAT A, B 1400-2, CAT C, D 1400-3, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
LPV DA	1237	1 1/8	418	1237	1 1/8	418	1237	1 1/8	418	1237	1 1/8	418			
LNAV/VNAV DA	1369	1 5/8	550	1369	1 5/8	550	1369	1 5/8	550	1369	1 5/8	550			
LNAV MDA	2180	1 1/4	1361	2180	1 1/2	1361	2180	3	1361	2180	3	1361			
CIRCLING	2180	1 1/4	1361	2180	1 1/2	1361	2180	3	1361	2180	3	1361			



CHANGES - REASONS

1. INCORPORATED CHANGES FROM P-NOTAM AND AMENDMENT A INTO FORM - IAW 8260.19K, PARA 8-3-4 C(3).
2. AIRPORT ELEVATION/TDZE CHANGED FROM "818 TO 819" - PER ACTIVE AIRNAV DATA.
3. TERMINAL ROUTES: CHANGED COURSE CUGVI TO WENVA FROM "258.35" TO "258.24" - NEW EVALUATION
4. TERMINAL ROUTES: CHANGED RNP/COURSE PAYIG TO LAYEY FROM "0.05/269.20" TO "1.00/269.17" - NEW EVALUATION.
5. TERMINAL ROUTES: INCREASED COURSE-TO-ALTITUDE (CA) LEG FROM "1218 MSL" TO 1219" - DUE TO NEW SURVEY AND AIRPORT ELEVATION INCREASED BY 1 FT.
6. PROFILE LINE 5: UPDATED AND ADDED "418 HAT: 1.13" - MOVED FROM ADDITIONAL FLIGHT DATA/AIRPORT ELEVATION INCREASED BY 1 FT.
7. PROFILE LINE 7: ADDED "IS CLEAR" TO 20:1 - NO 20:1 PENETRATION EXISTS.
8. PBN REQUIREMENTS NOTE: CHANGED AND MOVED "DME/DME RNP-0.3 NA" FROM NOTES TO "RNP APCH – GPS" - IAW 8260.19K, PARA 8-6-8 D(5)(A)1.
9. CHART NOTE: UPDATED FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C (4°F) OR ABOVE 46°C (116°F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 2°C OR ABOVE 54°C - IAW 8260.19K, PARA 8-6-10 R/NEW 5-YEAR HISTORICAL TEMPS.
10. CHART NOTE: ADDED "CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - IAW 8260.19K, PARA 8-6-10 M(1).
11. CHART NOTE: UPDATED FROM "VISIBILITY REDUCTION BY HELICOPTERS NA" TO "RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - NO 20:1 PENETRATIONS/IAW 8260.19K, PARA 8-6-12 K(2).
12. CHART PLANVIEW NOTE: UPDATED FROM "PROCEDURE NA FOR ARRIVALS AT BANDS VIA V372 NORTHEAST BOUND AND VIA V16-370 EASTBOUND" TO "PROCEDURE NA FOR ARRIVALS AT BANDS ON V372 NORTHEAST BOUND AND ON V16-370 EASTBOUND" - IAW 8260.19K, PARA 8-2-5 E(2).
13. ADDITIONAL FLIGHT DATA: REMOVED CHART FAS OBST "899 TERRAIN 335718N/1172600W" AND "CHART 1880 TANK 335430N/1171833W" - NO LONGER REQUIRED IAW IAW 8260.19K.
14. ADDITIONAL FLIGHT DATA: UPDATED 7:1 OBST FROM "CHART 1880 TANK 335430N/1171833W" TO "CHART 1883 WATER_TOWER (06-285246) 335430N/1171814W" - NEW CONTROLLING OBSTACLE.
15. ADDITIONAL FLIGHT DATA: UPDATED FROM "CHART VDP AT 3.87 NM TO RW27" TO "CHART VDP: 4.10 NM TO RW27" - LNAV MDA/HAT INCREASED.
16. ADDITIONAL FLIGHT DATA: REMOVED "**LNAV ONLY" - NO LONGER NEEDED.
17. ADDITIONAL FLIGHT DATA: REMOVED "ROUTE TYPE: A, R, ROUTE TYPE QUAUFIER1: J, AND ROUTE TYPE QUALIFIER 2: S" - NO LONGER REQUIRED.
18. ALTERNATE MINIMUMS: CHANGED FROM "CAT A, B 1300-2, CAT C, D 1300-3, NA WHEN LOCAL WEATHER NOT AVAILABLE" TO "CAT A, B 1400-2, CAT C, D 1400-3, NA WHEN LOCAL WEATHER NOT AVAILABLE" - NEW CIRCLING MDA DUE TO NEW OBSTACLE EVALUATION.
19. MINIMUMS: LPV DA/VISIBILITY ALL CATS CHANGED FROM "1236/1 1/2" TO "1237/1 1/8" - TDZE CHANGED/IAW 8260-3G, TABLE 3-3-1.
20. MINIMUMS: LNAV/VNAV DA/VISIBILITY ALL CATS CHANGED FROM "1368/2" TO "1369/1 5/8" - TDZE CHANGED/IAW 8260-3G, TABLE 3-3-1.
21. MINIMUMS: LNAV MDA/HAT ALL CATS CHANGED FROM "2100/1282" TO "2180/1361" - NEW CONTROLLING OBSTACLE.
22. MINIMUMS: CIRCLING ALL CAT MDA/VISIBILITY/HAA CHANGED FROM "CAT A - 1300/2/481, CAT B - 1680/2/861, CAT C - 1840/3/1021 & CAT D - 1780/3/961" TO "CAT A - 2180/1 1/4/1361, CAT B - 2180/1 1/2/1361, & CAT C AND D - 2180/3/1361" - NEW CONTROLLING OBSTACLES/IAW 8260-3G, TABLE 3-3-7.
23. FAS DATA BLOCK INFORMATION: LTP/FTP LATITUDE/LONGITUDE CHANGED FROM "335701.9300N/1172604.6500W" TO "335701.9320N/1172604.6410W," LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM "+02162 TO +02163," FPAP LATITUDE/LONGITUDE FROM "335722.0900N/1172748.9900W" TO "335722.0820N/1172748.9860W" AND LTP ORTHOMETRIC HEIGHT FPAP ORTHOMETRIC HEIGHT CHANGED FROM "+02494 TO +02495"- CRC REMAINDER CHANGED FROM "01A4503A" TO "AA2EC50D."

COORDINATED WITH:

A4A

ALPA

X

AOPA

X

APA

X

HAI

NBAA

X

OTHER:

ZLA, SOCAL APCH, RAL ATCT, APT MGR

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY

ROBERT G HAMILTON (KAMARUDINI R. RAIMI)

OFFICE

DATE

AJV-A433

01/26/2026

APPROVED BY

ROBERT G HAMILTON

OFFICE

DATE

TITLE

AJV-A433

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRAL
RUNWAY	RW27
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W27A
LTP/FTP LATITUDE	335701.9320N
LTP/FTP LONGITUDE	1172604.6410W
LTP/FTP ELLIPSOIDAL HEIGHT	+02163
FPAP LATITUDE	335722.0820N
FPAP LONGITUDE	1172748.9860W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.01
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1104
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	AA2EC50D

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+02495
FPAP ORTHOMETRIC HEIGHT	+02495



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT ID</u> RAL	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 27	<u>AMDT NO.</u> ORIG-B	<u>CITY</u> RIVERSIDE	<u>STATE</u> CA	<u>AIRPORT ELEVATION</u> 819	<u>FACILITY</u> RNAV
--------------------------	--	---------------------------	--------------------------	--------------------	---------------------------------	-------------------------

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM **TO**
BANDS CUGVI

RNP DISTANCE PAT MAP HAT HMAS
1.00 9.35

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335154.00N/1165112.00W	4613	215	8	4B	1000				PR300 AT2687	8600
TERRAIN	335224.00N/1165130.00W	4448 (4400)								AS1500	5900

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM **TO**
CUGVI WENVA

RNP DISTANCE PAT MAP HAT HMAS
1.00 7.00

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335400.00N/1170900.00W	2884	215	8	4B	1000				AT1216	5100
TERRAIN	335400.00N/1170900.00W	2683 (2700)								AS1000	3700

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

QUALITY
14
CHECKED

INTERMEDIATE

FROM

WENVA

TO

PAYIG

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	3.23										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335351.00N/1170927.00W	2796	215	8	4B	500				AT804	4100
TERRAIN	335227.00N/1171130.00W	2565 (2600)								AS1000	3600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

PAYIG

TO

LAYEY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	3.15										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335718.00N/1171630.00W	2861	215	8	4B	500				SA-412 AT151	3100
TERRAIN	335648.00N/1171603.00W	1778 (1800)								AS1000	2800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LPV

FROM

LAYEY

TO

RW27

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30	6.85		DA				418				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
BUILDING (06-001893)	335702.00N/1172553.00W	842	50	3	2A		33.22:1			MA65 XP103	1237

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

XP TO MAINTAIN CURRENT MINIMUM.

FINAL: LNAV/VNAV

FROM

LAYEY

TO

RW27

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30	6.85		DA				550				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TREE	335730.00N/1172615.00W	979	50	20	2C	161				AC20 MA49 XP160	1369

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

XP 160 TO CURRENT MINIMUMS



FINAL: LNAV

FROM

LAYEY

TO

RW27

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30	6.85		RW27				1361				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335517.27N/1172006.36W	1879	50	20	2C	250				XL43	2180

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LPV

FROM

DA

TO

PRADO

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30-1.00											916
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335645.00N/1173103.00W	1679	50	20	2C		ASC				4000
AAO	335451.00N/1174418.00W	1975	215	8	4B	1000					3000
TERRAIN	335451.00N/1174418.00W	1774 (1800)								AS1500	3300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH: LNAV/VNAV

FROM

DA

TO

PRADO

<u>RNP</u> 0.30-1.00	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u> 1048				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	335645.00N/1173103.00W	1679	50	20	2C		ASC				4000
AAO	335451.00N/1174418.00W	1975	215	8	4B	1000					3000
TERRAIN	335451.00N/1174418.00W	1774 (1800)								AS1500	3300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LNAV

FROM

RW27

TO

PRADO

RNP 0.30-1.00	DISTANCE	PAT	MAP		HAT		HMAS 2037				
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				4000
AAO	335451.00N/1174418.00W	1975	215	8	4B	1000					3000
TERRAIN	335451.00N/1174418.00W	1774 (1800)								AS1500	3300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

RAL

PROCEDURE NAME

RNAV (GPS) RWY 27

AMDT NO.

ORIG-B

CITY

RIVERSIDE

STATE

CA

AIRPORT ELEVATION

819

FACILITY

RNAV

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
TREE	335730.00N/1172615.00W	1.31	1361	979	50	20	2C	300		SI	2180
CATEGORY B											
TREE	335906.00N/1172645.00W	1.85	1361	1433	215	8	4B	300		SI	2180
CATEGORY C											
TREE	335948.00N/1172612.00W	2.91	1361	1501	215	8	4B	300		SI	2180
CATEGORY D											
AAO	335645.00N/1173103.00W	3.80	1361	1690	215	8	4B	300		SI	2180

CIRCLING REMARKS:

MSA

CENTER	RADIUS
RW27	25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	AAO	340730.00N/1165339.00W	055	28.9	11060	215	8	4B	1000			12100

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZLA ARTCC, RAL TOWER, RAL FSS

WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	RAL	24	RAL		Y	0
BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	CNO	24	CNO	9.63	Y	46

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
RAL 819, CNO 650
RA = 45.9

PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
----------------	---------------	---------------	-----



AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
RAL	RNAV (GPS) RWY 27	ORIG-B	RIVERSIDE	CA	819	RNAV
APPROACH AND RUNWAY LIGHTING SYSTEM		RUNWAY MARKINGS		RUNWAY VISUAL RANGE		
RW16 - MIRL (PCL)		BSC-G				
RW34 - MIRL (PCL), PAPI-2L		BSC-G				
RW27 - MIRL (PCL), PAPI-4L		NPI-G				
RW09 - MIRL (PCL), PAPI-4L		PIR-G				

GLIDESLOPE ANGLE	ELEV RWY THRESHOLD	TCH	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE	TCH
3.01	818.6	50.0			3.00	40.0

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	X	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	X	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

CRITICAL LOW	CRITICAL HIGH	ACT	APT ISA
+2C	+54C	+2C	+13.38C

CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2021-2025).
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 988 HIGH TEMP 1274.

"VISUAL PORTION OF FINAL" PENETRATIONS

FINAL TYPE	CIRCLING RWY 16		
20:1			
809 POLE (06-026395) 335723.1100N/1172652.7200W (21.75)			
FINAL TYPE	CIRCLING RWY 34		
20:1			
780 POLE (06-026398) 335644.6500N/1172657.0500W (10.78)		778 POLE (06-026399) 335644.6900N/1172651.9000W (8.43)	
FINAL TYPE	LNAV		
34:1			
1460 TREE (06-041381) 335620.4500N/1172148.5500W (1.27)		842 BUILDING (06-001893) 335702.0000N/1172553.0000W (1.23)	
FINAL TYPE	LPV; LNAV/VNAV		
34:1			
842 BUILDING (06-001893) 335702.0000N/1172553.0000W (1.23)			

PENETRATIONS REMARKS:

--



HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.

TAA NOT DEVELOPED PER LAX FPO.

100 FT VEG USED PER FPT.

CIRCLING 16 AND 34 HAVE LIGHTED POLES.

FOR CONTINGENCY PURPOSES ONLY:
1. BARO-VNAV AND VDP NA WHEN USING CNO ALTIMETER SETTING.
2. WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CNO ALTIMETER SETTING AND INCREASE LPV DA TO 1283 FEET AND ALL VISIBILITIES 1/4 SM; INCREASE LNAV/VNAV DA TO 1415 FEET AND ALL VISIBILITIES 1/8 SM AND INCREASE ALL MDAS 60 FEET.
ORDER 8260.3 CHAPTER 2 APPLIED TO 1883 WATER_TOWER (06-285246) 335429.79N/1171814.18W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	6.05
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.38
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	283.14
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1800
DISTANCE FROM	THLD	TO 1500FT POINT	10.30
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	4.00
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	283.20
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	2600

THRESHOLD COORDINATES (IF STR-IN)	335701.93N/1172604.64W
ARP COORDINATES	335706.80N/1172642.40W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 27 DISTANCE 0.53 NM
FAF COORDINATES	335528.64N/1171803.60W
FIX NAME COORDINATES	

REMARKS

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
ROBERT G HAMILTON (KAMARUDINI R. RAIMI)	AJV-A433	01/26/2026	AERONAUTICAL INFORMATION SPECIALIST

