# 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.

PROCEDURE NAME **AIRPORT ORIGINAL/AMENDMENT STATE** CITY **AIRPORT ID** LAKE TAHOE RNAV (GPS) RWY 18 SOUTH LAKE TAHOE CA KTVL **TDZE** AIRPORT ELEVATION **SUPERSEDED** ORIGINAL/AMENDMENT DATED **MAG VAR EPOCH YEAR** 6268 6259 **GPS RWY 18** ORIG-A 09/27/2000 16E 1985 **FACILITY COORDINATES OF FACILITIES ACTUAL EFFECTIVE DATE REQUIRED EFFECTIVE DATE CANCEL/SUSPEND** 

15 AUGUST 2019

ROUTINE

TERMINAL ROUTES

**RNAV** 

TERMINAL ROOTED									
FROM	FIX TYPE	<u>TO</u>	FIX TYPE	LEG TYPE	FO/FB	<u>RNP</u>	COURSE	DISTANCE	ALTITUDE
HETRY	IAF	OBAVE		TF	FB	1.00	095.96	6.00	11000
HUYJO	IAF	OBAVE		TF	FB	1.00	216.22	7.61	11000
OBAVE	IF	JEZYY		TF	FB	1.00	159.96	7.39	9300
JEZYY	FAF	SERVY/3.36 NM TO SAKYY		TF	FB	0.30	171.94	2.82	
SERVY/3.36 NM TO SAKYY		SAKYY	MAP	TF	FO	0.30	171.94	3.36	
SAKYY	MAP	6680 MSL		CA			171.94		
6680 MSL		KATFR		DF	FO	1.00			10000
KATFR		HETRY		TF	FO	1.00	320.07	10.49	

#### **MISSED APPROACH**

MAP: LP: SAKYY

LNAV: SAKYY

#### **MISSED APPROACH INSTRUCTIONS:**

(DO NOT EXCEED 185 KIAS UNTIL KATFR) CLIMBING RIGHT TURN TO 10000 DIRECT KATFR THEN ON TRACK 320.07 TO HETRY AND HOLD, CONTINUE CLIMB-IN-HOLD TO 12000. #MISSED APPROACH REQUIRES MINIMUM CLIMB OF 425 FEET PER NM TO 10000.

# **ALTERNATE MISSED APPROACH INSTRUCTIONS:**

AIRPORT AIRPORT ID PROCEDURE NAME ORIGINAL/AMENDMENT CITY STATE

LAKE TAHOE KTVL RNAV (GPS) RWY 18 1 SOUTH LAKE TAHOE CA

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)

2. PROFILE STARTS AT OBAVE

**3. FAC:** 171.94 **FAF:** JEZYY **DIST FAF TO MAP:** 6.18 **DIST FAF TO THLD:** 8.78

4. MIN ALT: OBAVE 11000, JEZYY 9300, SERVY/3.36 NM TO SAKYY 8340

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT:

6. MIN GP INCPT: GP ALT AT FAF: OM: MM: IM:

7. GP ANGLE: 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH:

8. MSA FROM: SAKYY 12200

#### **PBN REQUIREMENTS NOTE:**

RNP APCH.

#### NOTES:

CHART NOTE: CIRCLING NA AT NIGHT.

CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA.

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE (ANGLE)/TCH (FEET)).

CHART NOTE: CIRCLING NA EAST OF RWY 18-36.

CHART SPEED ICON IN PLANVIEW AT HETRY: MAX 220 KIAS. CHART SPEED ICON IN PLANVIEW AT HUYJO: MAX 220 KIAS.

#### **ADDITIONAL FLIGHT DATA:**

CHART CIRCLING ICON.

JEZYY TO RW18: 3.20/60.

CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 5.00 DEGREES.

WAAS CHANNEL #57943 REFERENCE PATH ID: W18A

CHART FAS OBST: 6428 TREE 385513N/1195905W, 6612 TREE 385359N/1200019W.

6479 AAO 390202N/1195660W, 6439 AAO 385960N/1195734W, 6880 AAO 390240N/1195645W, 6519 AAO 390004N/1195730W.

HOLD SE. LT. 335.56 INBOUND

LTP HAE: 1882.7 M

AIRPORT AIRPORT ID PROCEDURE NAME ORIGINAL/AMENDMENT CITY STATE

LAKE TAHOE KTVL RNAV (GPS) RWY 18 1 SOUTH LAKE TAHOE CA

MINIMUMS:

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

ALTERNATE: NA χ

CATEGORY:	A		В		С			D			Е				
FINAL TYPE	DA/MDA	<u>VIS</u>	HAT/HAA												
LP MDA#	6680	3	421	6680	3	421	6680	3	421	6680	3	421			
LP MDA	7120	3	861	7120	3	861	7140	3	881	7320	3	1061			
LNAV MDA#	6980	3	721	6980	3	721	6980	3	721	7560	3	1301			
LNAV MDA	7280	3	1021	7620	3	1361	8160	3	1901		NA				
CIRCLING	7420	3	1152	7680	3	1412	8160	3	1892		NA				

# **CHANGES - REASONS**

- 1. PROCEDURE NAME CHANGED FROM GPS RWY 18 TO RNAV (GPS) RWY 18 NAMING CONVENTION.
- 2. FIX JEZZY CHANGED FROM CNF TO FIX STANDARD FIX UTILIZED AS FAF.
- 3. FAF ALTITUDE RAISED FROM 8300 TO 9300 AND REMOVED INTERMEDIATE STEPDOWN FIX FPT PROCEDURE DESIGN TO KEEP MINIMUMS LOWER THAN FAF ALTITUDE.
- 4. FAF CHANGED FROM SERVY TO JEZZY, 2.65 NM NORTH OF PREVIOUS FAF LOCATION FPT MANDATE TO MOVE FAF AND UTILIZE EXISTING INTERMEDIATE STEPDOWN FIX NAME.
- 5. INTERMEDIATE COURSE/DISTANCE CHANGED FROM 163.00/10.0 TO 159.96/7.39 FPT DESIGN TO RAISE FAF ALTITUDE AND ELIMINATE INTERMEDIATE STEPDOWN COMPENSATING FOR HIGH TERRAIN.
- 6. FIX SERVY CHANGED FROM FAF TO FINAL STEPDOWN FIX (3.36 TO SAKYY) AT 8340 FT FPT MADATE TO MAKE SERVY THE FINAL STEPDOWN FIX IN THE VICINTY OF SAME LOCATION.
- 7. FINAL COURSE CHANGED FROM 172.01 TO 171.94 OFFSET COURSE DESIGNED TO FACILITATE MISSED APPROACH TURNOUT DUE TO MISSED PENETRATIONS.
- 8. ADDED DIST FAF TO MAP VALUE OF 6.18 RNAV PROCEDURE.
- 9. CHANGED FAF TO THLD FROM 6.00 TO 8.78 FAF MOVED.
- 10. ADDED 20:1 IS CLEAR AND 34:1 IS NOT CLEAR RNAV PROCEDURE.
- 11. CHANGED MISSED APPROACH FROM DIRECT TO HETRY AT 12000 TO DIRECT KATFR AND ON A TRACK TO HETRY WITH A INITIAL CLIMB TO 10000 AND 185K AIRSPEED RESTRICTION UNTIL KATFR MINIMIZE INITIAL TURNING RADIUS OF SECTION 2 TO MITIGATE AS MANY MISSED PENETRATIONS AS POSSIBLE.
- 12. ADDED LP AND LNAV LINES OF MINIMUMS WITH MISSED CLIMB GRADIENT OF 425 TO 10000 FPT REQUESTED BY CHECKLIST.
- 13. ADDED LP STANDARD MISSED CLIMB GRADIENT MINIMUMS REQUIRED FOR AIRCRAFT WHO CAN NOT MEET THE CLIMB GRADEINT.
- 14. REPLACED S-18 GPS MINIMUMS WITH LNAV STANDARD MINIMUMS 8260.58 CRITERIA UTILIZED.
- 15. REMOVED LNAV CATS D MINIMUMS MISSED PENETRATIONS REQUIRED MDA TO BE HIGHER THAN FAF ALTITUDE.
- 16. LNAV CATS A. B. AND C MDA/HAT CHANGED FROM 7160/906 TO 7280/1021. 7620/1361. AND 8160/1901 MISSED PENETRATION ADJUSTMENTS.
- 17. CIRCLING CAT D MDA/HAA CHANGED FROM 7560/1296 TO 8160/1432 AND 8400/1892 STRAIGHT IN ADJUSTMENTS TO MATCH LNAV STANDARD MINIMUMS.
- 18. DELETED CIRCLING CAT D MINIMUMS LNAV CAT D STANDARD MINIMUMS NOT PUBLISHED.
- 19. CHARTED VDA NON-PRECISION PROCEDURE TO RUNWAY.
- 20. CHARTED CIRCLING ICON NEW CIRCLING CRITERIA APPLIED.
- 21. REMOVED FLY VISUAL FROM PROCEDURE FPT DECISION DUE TO AFS APPROVAL REQUIREMENT .
- 22. ADDED FINAL APPROACH COURSE OFFSET NOTE 8260.19 REQUIRED NOTE FOR OFFSET PROCEDURE.
- 23. ADDED ALTIMETER SETTING/PROCEDURE NA NOTE PROVIDE INSTRUCTION WHEN LOCAL ALTIMETER SETTING NOT RECEIVED.
- 24. ADDED HELICOPTER REDUCTION BELOW 3/4 SM RESTRICTION NOTE 34:1 PENETRATIONS EXIST, NO LEEWAY EXISTS TO NOT PUBLISH NOTE WHEN VISIBILITY REDUCTION BY 50% REMAINS ABOVE 3/4 SM.
- 25. ADDED RNP APCH NOTE PBN REQUIREMENTS NOTE.
- 26. ADDED AIRSPEED RESTRICTION NOTES AT HETRY AND HUYJO INTIALS MAINTAIN MINIMUM SEGMENT LENGTH.
- 27. ADDED VGIS NOT COINCIDENT NOTE PROCEDURE TCH (60) EXCEEDS 3 FT FROM VGSI TCH (47.7).
- 28. APT ELEV/TDZE CHANGED FROM 6264/6254 TO 6268/6259 SURVEY UPDATE AND DATA PULL.
- 6/7/2019 THIS IS AN UPDATED COPY OF THE FORM DEVELOPED 4/10/2019
- ADDED CIRCLING NA EAST OF RWY 18-36 RESTRICTION NOTE.



**COORDINATED WITH:** A4A ALPA X AOPA X APA X HAI 🗌 NBAA X OTHER: ZOA, TVL ATCT, AMGR, CA AERO Digitally signed by **FLIGHT CHECKED BY OFFICE DATE DONALD H LANIER** THOMAS EDWARD MOLOKIE FIOG 06/05/2019 Jun 12, 2019 **DEVELOPED BY OFFICE** DATE Digitally signed by KELLY DEAN AJV-A431 03/11/2019 **KELLY D DEAN APPROVED BY** Jun 07, 2019 **OFFICE DATE TITLE** PATRICK MULQUEEN AJV-A430 MANAGER Digitally signed by DONALD H LANIER

PROCEDURE NAME

RNAV (GPS) RWY 18

**ORIGINAL/AMENDMENT** 

**CITY** 

SOUTH LAKE TAHOE

**STATE** 

CA

<u>AIRPORT</u>

LAKE TAHOE

AIRPORT ID

KTVL

Jun 12, 2019

AIRPORT AIRPORT ID PROCEDURE NAME ORIGINAL/AMENDMENT CITY STATE

LAKE TAHOE KTVL RNAV (GPS) RWY 18 1 SOUTH LAKE TAHOE CA

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTVL
RUNWAY	RW18
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W18A

 LTP/FTP LATITUDE
 385411.4570N

 LTP/FTP LONGITUDE
 1195933.4115W

LTP/FTP ELLIPSOIDAL HEIGHT +18827

 FPAP LATITUDE
 385243.1225N

 FPAP LONGITUDE
 1195949.1335W

THRESHOLD CROSSING HEIGHT (TCH) 00060.0

TCH UNITS SELECTOR (METERS OR FEET USED) F

GLIDEPATH ANGLE (GPA) 03.20

COURSE WIDTH AT THRESHOLD 106.75

LENGTH OFFSET 00000

HORIZONTAL ALERT LIMIT (HAL) 40.0

VERTICAL ALERT LIMIT (VAL) 0.0

CRC REMAINDER C31B7614

# **ADDITIONAL PATH POINT RECORD INFORMATION**

ICAO CODE K2
LTP ORTHOMETRIC HEIGHT +19066
FPAP ORTHOMETRIC HEIGHT +19066