

**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.

AIRPORT ID HRL	PROCEDURE NAME RNAV (GPS) Y RWY 36L	ORIGINAL/AMENDMENT 3	CITY HARLINGEN	STATE TX
AIRPORT ELEVATION 36	TDZE 36	SUPERSEDED RNAV (GPS) Y RWY 35L	DATED 10/08/2020	MAG VAR 3E
FACILITY RNAV	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE 11 JULY 2024	REQUIRED EFFECTIVE DATE 07/11/2024	EPOCH YEAR 2025
				CANCEL/SUSPEND

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
GOROO		TIMMM		TF	FB	1.00	104.88	5.28	4000
FOODS		TIMMM		TF	FB	1.00	124.18	6.16	4000
TIMMM	IAF	BOTVE		TF	FB	1.00	087.57	4.86	2900
HHALY	IAF	BOTVE		TF	FB	1.00	267.69	5.37	2900
BOTVE	IF	FENKU		TF	FB	1.00	357.62	4.29	1600
FENKU		QUTIE		TF	FB	1.00	357.63	1.25	1400
QUTIE	FAF	RW36L	MAP	TF	FO	0.30	357.64	4.11	
RW36L	MAP	236 MSL		CA			357.64		
236 MSL		ZIPIV		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW36L

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 DIRECT ZIPIV AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT FENKU
- FAC: 357.64 FAF: QUTIE DIST FAF TO MAP: 4.11 DIST FAF TO THLD: 4.11
- MIN ALT: FENKU 1600, QUTIE 1400
- DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.46 GS ANT:
- MIN GP INCPT: 1400 GP ALT AT PFAF: QUTIE 1400 OM: MM: IM:
- GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 55.0
- MSA FROM: RW36L 2600



PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -1°C OR ABOVE 54°C.
 CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
 CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PORT ISABEL ALTIMETER SETTING.
 CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING AND INCREASE LPV DA TO 278 FEET; INCREASE LNAV/VNAV DA TO 447 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CAT C AND D 1/8 SM; AND CIRCLING VISIBILITY CATS C AND D 1/4 SM.
 CHART SPEED ICON IN PLANVIEW AT TIMMM: MAX 210 KIAS.
 CHART SPEED ICON IN PLANVIEW AT HHALY: MAX 210 KIAS.
 CHART SPEED ICON IN PLANVIEW AT FENKU: MAX 180 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD N, RT, 177.63 INBOUND.
 FAS OBST: 246 AAO 260930N/0974045W.
 CHART 533 TOWER (48-009045) 260921N/0974129W.
 CHART VDP AT 1.28 NM TO RW36L.
 WAAS CHANNEL # 86530
 REFERENCE PATH ID: W36B
 CHART AT OR ABOVE 5000 AT GOROO.
 CHART AT OR ABOVE 5000 AT FOODS.
 CHART AT OR ABOVE 4000 AT HHALY.
 CHART AT OR ABOVE 1600 AT FENKU.
 LTP HAE: -11.9 M

MINIMUMS:

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

ALTERNATE: NA STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.

<u>CATEGORY:</u>	<u>A</u>			<u>B</u>			<u>C</u>			<u>D</u>			<u>E</u>		
<u>FINAL TYPE</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>
LPV DA	236	3/4	200	236	3/4	200	236	3/4	200	236	3/4	200			
LNAV/VNAV DA	405	1	369	405	1	369	405	1	369	405	1	369			
LNAV MDA	500	1	464	500	1	464	500	1 3/8	464	500	1 3/8	464			
CIRCLING	500	1	464	560	1	524	600	1 1/2	564	680	2	644			



CHANGES - REASONS

1. THIS IS A COMPLETE REDESIGN OF THE PROCEDURE WITH NEW LEGS/FIXES AND MINIMUMS ONLY REMAINING FIX IS IF BOTVE AND MISSED LEG TO ZIPIV - ATC REQUESTED CHANGES TO OVERLAY THE ILS AND RNAV (RNP) TO THIS RWY.
2. REMOVED FEEDERS FROM BRO VORTAC AND RELAX FIXES - ATC/PBN REDESIGN.
3. REMOVED INITIAL FROM SIVIE - ATC/PBN REDESIGN.
4. PROCEDURE NAME CHANGED FROM RNAV (GPS) Y RWY 35L TO RNAV (GPS) Y RWY 36L - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING AND IAW 8260.19I PARA 8-6-2.C.
5. MAP FOR LNAV CHANGED FROM RW35L TO RW36L - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
6. LINE 2 CHANGED FROM PROFILE STARTS AT BOTVE TO PROFILE STARTS AT FENKU - ATC/PBN REDESIGN.
7. LINE 3 DATA CHANGED FROM 355.63/AVIDE/4.41/4.41 TO 357.64/QUITE/4.11/4.11 - ATC/PBN REDESIGN.
8. LINE 4 CHANGED FROM "BOTVE 2000, AVUDE 1500" TO "FENKU 1600, QUTIE 1400" - ATC/PBN REDESIGN.
9. LINE 5 - ADDED 200 HAT: 0.46 - IAW 8260.19I, PARA 8-6-7E(3).
10. LINE 6 MIN GS INTERCEPT AND GS ALT CHANGED FROM 1500 AVUDE TO 1400 QUTIE - ATC/PBN REDESIGN.
11. LINE 7 - 20:1 IS CLEAR ADDED - NO PENETRATIONS EXIST.
12. LINE 8 - MSA CHANGED FROM RW35L TO RW36L - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
13. DELETED NOTE "DME/DME RNP-0.3 NA" AND ADDED "PBN REQUIREMENTS NOTE: RNP AR APCH - GPS" - IAW 8260.19I 8-6-8.
14. NOTES: UPDATED UNCOMPENSATED BARO-VNAV TEMPERATURES AND REMOVED DEGREES F - NEW 5 YEAR AVERAGE CALCULATED.
15. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 5000 AT GORDO, FOODS" - ATC REQUESTED
16. NOTES: CHANGED ALT MINS NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING: INCREASE LPV DA TO 328 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE LNAV/VNAV DA TO 418 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND VISIBILITY CATS C AND D 1/4 SM" TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING AND INCREASE LPV DA TO 278 FEET; INCREASE LNAV/VNAV DA TO 447 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CAT C AND D 1/8 SM; AND CIRCLING VISIBILITY CATS C AND D 1/4 SM." - IAW 8260.19I 8-6-9.F.(4) AND 8-6-11.N.(1).
17. NOTES: REMOVED PLANVIEW NOTE "PROCEDURE NA FOR ARRIVALS ON BRO VORTAC AIRWAY RADIALS 258 CW 329" - BRO VORTAC FEEDER WAS REMOVED
18. NOTES: ADDED CHART SPEED ICON MAX 210 KIAS AT TIMMM, ALUDE, AHACH, HHALY, KAHNS - REQUESTED BY ATC
19. NOTES: ADDED CHART SPEED ICON MAX 180 KIAS AT FENKU - REQUESTED BY ATC
20. ADDITIONAL FLIGHT DATA: CHARTED OBSTACLE CHANGED FROM "CHART 305 TOWER 260828N/0973826W" TO "CHART 533 TOWER 260921N/0974129W" - NEW CONTROLLING OBSTACLE
21. ADDITIONAL FLIGHT DATA: FAS OBSTACLE CHANGED FROM "109 POLE 261214N/0973955W" TO "246 AAO 260930N/0974045W" - NEW CONTROLLING OBSTACLE
22. ADDITIONAL FLIGHT DATA: REFERENCE PATH ID CHANGED FROM W35B TO W36B - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
23. ADDITIONAL FLIGHT DATA: LTP HAE CHANGED FROM -11.8 TO -11.9 - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
24. ADDITIONAL FLIGHT DATA VDP NOTE CHANGED FROM RW35L TO RW36L - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
25. CHANGED ALTERNATE MINS FROM STANDARD TO STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE - IAW 8260.19I, ATTACHMENT 4: CRITERIA CLARIFICATIONS, PARA 5.B.
26. MINIMUMS - LPV DA/HAT CHANGED FROM 286/250 TO 236/200 - NEW CONTROLLING OBSTACLE
27. MINIMUMS - LNAV/VNAV DA/VIS/HAT CHANGED FROM 376- 1 1/8 - 340 TO 405 - 1 - 369 - NEW CONTROLLING OBSTACLE
28. MINIMUMS - CIRCLING CAT C VIS CHANGED FROM 1 3/4 TO 1 1/2 - NEW CONTROLLING OBSTACLE
29. FAS DATA: RUNWAY CHANGED FROM RW35L TO RW36L - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
30. FAS DATA: RUNWAY PATH ID CHANGED FROM W35B TO W36B - DUE TO MAGVAR CHANGE/RUNWAY RENUMBERING.
31. FAS DATA: LTP/FTP LAT/LONG CHANGED FROM 261303.1700N/ 0973931.8745W TO 261252.2900N/ 0973932.0000W - NEW AIRNAV DATA INCORPORATED.
32. FAS DATA: LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM -00118 TO -00119 - NEW AIRNAV DATA INCORPORATED.
33. FAS DATA: UPDATED FPAP LATITUDE/LONGITUDE FROM 261432.5300N/0973930.7800W TO 261425.3820N/ 0973930.8545W. - NEW AIRNAV DATA INCORPORATED.
34. FAS DATA: VERTICAL ALERT LIMIT CHANGED FROM 50.0 TO 35.0 - NEW AIRNAV DATA INCORPORATED.
35. FAS DATA: UPDATED CRC REMAINDER FROM 488ECAC7 TO C2E7F611. - MULTIPLE CHANGES TO THE FAS DATA RESULTING IN NEW CRC REMAINDER.
36. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 4000 AT HHALY, KAHNS" - ATC REQUESTED
37. ADDITIONAL FLIGHT DATA: ADDED "CHART MANDATORY 1600 AT KENKU" - ATC REQUESTED

04/26/24: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/05/2024.

1. ADDED NOTE "VGSi AND RNAV GLIDEPATH NOT COINCIDENT (VGSi ANGLE {ANGLE}/TCH {FEET})" - IAW 8260.19I 8-6-9.

05/06/24: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/05/2024.

1. TERMINAL ROUTES - REMOVED IF LEGS STARTING AT KAHNS AND ALUDE -LEGS FROM ALUDE AND KAHNS REMOVED AT FTP REQUEST.
2. NOTES - REMOVED NOTE "SEE PLANVIEW FOR MULTIPLE IF LOCATIONS" - NOTE NO LONGER NEEDED AFTER REMOVING MULTIPLE IF LEGS.
3. NOTES - REMOVED SPEED ICON NOTES AT ALUDE AND KAHNS - LEGS FROM ALUDE AND KAHNS REMOVED AT FTP REQUEST.
4. ADDITIONAL FLIGHT DATA - REMOVED CHART AT OR ABOVE 4000 AT KAHNS - LEG FROM KAHNS REMOVED AT FTP REQUEST.
5. ADDITIONAL FLIGHT DATA - CHANGED CHART MANDATORY 1600 AT FENKU TO CHART AT OR ABOVE 1600 AT FENKU - DUE TO REDESIGN, MANDATORY CROSSING AT FENKU IS NO LONGER NEEDED.



AIRPORT ID
HRL

PROCEDURE NAME
RNAV (GPS) Y RWY 36L

ORIGINAL/AMENDMENT
3

CITY
HARLINGEN

STATE
TX

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA

OTHER: ZHU, HRL ATCT, VALLEY APP CON, AMGR

FLIGHT CHECKED BY

PENDING

Digitally signed by
CASIMIR L TABAKA
May 06, 2024

OFFICE

DATE

DEVELOPED BY
JOSEPH BLANCO

Digitally signed by
JOSEPH A BLANCO
May 06, 2024

OFFICE
AJV-A432

DATE
02/01/2024

APPROVED BY
BEV L BORDY

Digitally signed by
CASIMIR L TABAKA
May 06, 2024

OFFICE
AJV-A430

DATE

TITLE
MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHRL
RUNWAY	RW36L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W36B
LTP/FTP LATITUDE	261252.2900N
LTP/FTP LONGITUDE	0973932.0000W
LTP/FTP ELLIPSOIDAL HEIGHT	-00119
FPAP LATITUDE	261425.3820N
FPAP LONGITUDE	0973930.8545W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	C2E7F611

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00109
FPAP ORTHOMETRIC HEIGHT	+00109

