

**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 31	ORIGINAL/AMENDMENT 4	CITY HARLINGEN	STATE TX
AIRPORT ELEVATION 36	TDZE 36	SUPERSEDED RNAV (GPS) Y RWY 31	DATED 03/02/2017	MAG VAR 3E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
MFE VOR/DME		AMAPE		TF	FO	1.00	094.25	39.99	2600
RELAX		AMAPE		TF	FO	1.00	209.32	12.08	2000
AMAPE	IF/IAF	BEBSE		TF	FB	1.00	312.71	5.93	1700
BEBSE	FAF	FOALS/2.29 NM TO RW31		TF	FB	0.30	312.67	2.76	
FOALS/2.29 NM TO RW31		RW31	MAP	TF	FO	0.30	312.67	2.29	
RW31	MAP	236 MSL		CA			312.67		
236 MSL		CAKOB		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW31

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 DIRECT CAKOB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- HOLD SE AMAPE, RT, 312.71 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.
- FAC: 312.67 FAF: BEBSE DIST FAF TO MAP: 5.05 DIST FAF TO THLD: 5.05
- MIN ALT: AMAPE 2000, BEBSE 1700, FOALS/2.29 NM TO RW31 820
- DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.46 GS ANT: IM:
- MIN GP INCPT: 1700 GP ALT AT PFAF: BEBSE 1700 OM: MM:
- GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 55.0
- MSA FROM: RW31 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 PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON MFE VOR/DME AIRWAY RADIALS 029 CW 168.
 CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT RELAX ON V163 NORTHBOUND.
 CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PORT ISABEL ALTIMETER SETTING.
 CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITIES TO 3/4 SM.
 CHART NOTE: FOR INOPERATIVE ALS WHEN USING PORT ISABEL ALTIMETER SETTING, INCREASE LNAV/VNAV ALL CATS VISIBILITIES TO 7/8 SM.
 CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING; INCREASE LPV DA TO 278 FEET; INCREASE LNAV/VNAV DA TO 328 FEET;
 INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CATS C AND D 1/8 SM, AND CIRCLING VISIBILITY CATS C AND D 1/4 SM.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 132.56 INBOUND.
 FAS OBST: 96 TREE (48-046892) 261332N/0973847W.
 CHART 138 TRANSMISSION LINE (48-029096) 261132N/0973656W.
 CHART VDP AT 0.84 NM TO RW31.
 WAAS CHANNEL # 82530
 REFERENCE PATH ID: W31A
 CHART CIRCLING ICON.
 LTP HAE: -11.8 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	1/2	200	236	1/2	200	236	1/2	200	236	1/2	200			
LNAV/VNAV DA	286	1/2	250	286	1/2	250	286	1/2	250	286	1/2	250			
LNAV MDA	360	1/2	324	360	1/2	324	360	1/2	324	360	1/2	324			
CIRCLING	460	1	424	560	1	524	600	1 1/2	564	680	2	644			



CHANGES - REASONS

1. AIRPORT MAGVAR CHANGED FROM 5E TO 3E AND EPOCH YEAR CHANGED FROM 2005 TO 2025 – RUNWAY NUMBERS FOR 13/31 DID NOT CHANGE.
2. TERMINAL ROUTES: SEGMENT MFE VOR/DME TO AMAPE, CHANGED RNP FROM “2.0” TO “1.0”, COURSE CHANGED FROM “092.25” TO “094.25” – NEW PBN NAVSPEC TABLE/MAGVAR CHANGED.
3. TERMINAL ROUTES: SEGMENT RELAX TO AMAPE , RNP CHANGED FROM “2.0” TO “1.0”, COURSE CHANGED FROM “207.32” TO “209.32” – NEW PBN NAVSPEC TABLE/MAGVAR CHANGED.
4. TERMINAL ROUTES: SEGMENT AMAPE TO BEBSE, COURSE CHANGED FROM “310.71” TO “312.71” – MAGVAR CHANGED.
5. TERMINAL ROUTES: SEGMENT BEBSE TO FOALS, FOALS CHANGED FROM “2.30 NM TO RW31” TO “2.29 NM TO RW31,” COURSE CHANGED FROM “310.66” TO “312.67,” AND DISTANCE CHANGED FROM “2.75” TO “2.76” – MAGVAR CHANGED/FIXES BEBSE AND FOALS MOVED.
6. TERMINAL ROUTES: SEGMENT FOALS TO RW31, FOALS CHANGED FROM “2.30 NM TO RW31” TO “2.29 NM TO RW31,” COURSE CHANGED FROM “310.66” TO “312.67,” AND DISTANCE CHANGED FROM “2.30” TO “2.29” – MAGVAR CHANGED AND FIX FOALS MOVED.
7. TERMINAL ROUTES: SEGMENT RW31 TO 236 MSL, COURSE CHANGED FROM “310.66” TO “312.67” – MAGVAR CHANGED.
8. PROFILE LINE 2: CHANGED FROM “HOLD SE AMAPE, RT, 310.71 INBOUND, 2000 FT. IN LIEU OF PT (IAF)” TO “HOLD SE AMAPE, RT, 312.71 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.” – MAGVAR CHANGED/ /MAX ALTITUDE REQUIRED.
9. PROFILE LINE 3: FAC CHANGED FROM “310.66” TO “312.67” – MAGVAR CHANGED.
10. PROFILE LINE 4: MIN ALTITUDE CHANGED FROM “AMAPE 2000, BEBSE 1700, FOALS/2.30 NM TO RW31 820*” TO AMAPE 2000, BEBSE 1700, FOALS/2.29 NM TO RW31 820” – MAGVAR CHANGE/FIX FOALS MOVED/ASTERISK NO LONGER REQ FOR LNAV.
11. PROFILE LINE 5: ADDED “200 HAT: 0.46” AND REMOVED FROM ADDITIONAL FLIGHT DATA - IAW 8260.19, 8-6-7, E. (3).
12. PROFILE LINE 7: ADDED 20:1 IS CLEAR – 20:1 HAS NO PENETRATIONS/NEW REQUIREMENT.
13. PBN REQUIREMENTS NOTE: ADDED “RNP APCH – GPS” AND REMOVED “CHART NOTE: DME/DME RNP-0.3 NA” – NEW PBN NAVSPEC FORMATS.
14. NOTES: CHANGED FROM “CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 2C (36F) OR ABOVE 54C (130F)” TO “CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -1°C OR ABOVE 54°C” – NEW FORMAT, NEW 5-YR TEMPS.
15. NOTES: ADDED NOTE “CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PORT ISABEL ALTIMETER SETTING – BARO-VNAV AND VDP NOT AUTHORIZED WITH USE OF REMOTE ALTIMETER.
16. NOTES: ADDED CHART NOTES: “FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITIES TO 3/4 SM, “FOR INOPERATIVE ALS WHEN USING PORT ISABEL ALTIMETER SETTING, INCREASE LNAV/VNAV ALL CATS VISIBILITIES TO 7/8 SM,“ AND “WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING; INCREASE LPV DA TO 278 FEET; INCREASE LNAV/VNAV DA TO 328 FEET; INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CATS C AND D 1/8 SM, AND CIRCLING VISIBILITY CATS C AND D 1/4 SM” – NEW VISIBILITY CHARTS/NEW HIGHER VISIBILITIES.
17. ADDITIONAL FLIGHT DATA: CHANGED HOLDING NOTE FROM “HOLD NW, RT, 130.56 INBOUND” TO “HOLD NW, RT, 132.56 INBOUND” – MAGVAR UPDATE.
18. ADDITIONAL FLIGHT DATA: REMOVED “CHART FAS OBST: 94 BLDG 261148N/0973810W” TO “CHART FAS OBST: 96 TREE (48-046892) 261332N/0973847W” AND ADDED “CHART 138 TRANSMISSION_LINE 261132N/0973656W” – NEW SURVEY/EVALUATION.
19. ADDITIONAL FLIGHT DATA: NOTE CHANGED FROM “CHART VDP AT 1.03 NM TO RW31* *LNAV ONLY,” TO “CHART VDP AT 0.83 NM TO RW31” – NEW FORMAT/NEW MINS.
20. ALTERNATE MINIMUMS: ADDED “NA WHEN LOCAL WEATHER NOT AVAILABLE” – BACK UP ALTIMETER ON PROCEDURE.
21. MINIMUMS: LNAV MDA/HAT CATS A/B CHANGED FROM “420/384” TO “360/324” AND CATS C/D MDA/VIS/HAT CHANGED FROM “420/5/8/384” TO “360/1/2/324” – NEW SURVEY/NEW VIS CHARTS.
22. MINIMUMS: CIRCLING CAT A MDA/VIS/HAA CHANGED FROM “500/1/464” TO “460/1/424”, CAT C MDA/VIS/HAA CHANGED FROM “680/1 3/4/644” TO “600/1 1/2/564” – NEW SURVEYED OBSTACLES/NEW VIS CHARTS.
23. CRC REMAINDER CHANGED FROM “FA36200B” TO “CCA4821E” – LTP CHANGED FROM “261308.0925N/0973854.5485W” TO “261308.0810N/0973854.5540W; AND FPAP CHANGED FROM “261411.9705N/0974003.8400W” TO “261411.9655N/0974003.8380W.”

COORDINATED WITH:

A4A
 ALPA
 AOPA
 APA
 HAI
 NBAA
 OTHER: ZHU, VALLEY APP CON, HRL ATCT, AMGR

FLIGHT CHECKED BY

PENDING

Digitally signed by
CASIMIR L TABAKA
 Apr 08, 2024

OFFICE

DATE

DEVELOPED BY

APRIL SARMENTO

Digitally signed by
APRIL T SARMENTO
 Apr 04, 2024

OFFICE

AJV-A432

DATE

01/04/2024

APPROVED BY

CASIMIR L. TABAKA

Digitally signed by
CASIMIR L TABAKA
 Apr 08, 2024

OFFICE

AJV-A432

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	RW31
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	261308.0810N
LTP/FTP LONGITUDE	0973854.5540W
LTP/FTP ELLIPSOIDAL HEIGHT	-00118
FPAP LATITUDE	261411.9655N
FPAP LONGITUDE	0974003.8380W
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	0536
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER CCA4821E

ADDITIONAL PATH POINT RECORD INFORMATION

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

