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	PROCEDURE NAME	ORIGINAL/AMENDMENT		CITY	STATE
BDH	RNAV (GPS) RWY 31	2		WILLMAR	MN
AIRPORT ELEVATION	**TDZE**	**SUPERSEDED**	**ORIGINAL/AMENDMENT**	**DATED**	**MAG VAR**	**EPOCH YEAR**
1126	1126	RNAV (GPS) RWY 31	1C	07/18/2019	4E	2000
FACILITY	**COORDINATES OF FACILITIES**	**ACTUAL EFFECTIVE DATE**	**REQUIRED EFFECTIVE DATE**	**CANCEL/SUSPEND**
RNAV		25 JANUARY 2024	ROUTINE	

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
CLAPS		HEPIV		TF	FO	1.00	099.10	17.62	2800
ARMUW		HEPIV		TF	FO	1.00	152.52	29.49	3100
RWF VOR/DME	IAF	HEPIV	NOPT	TF	FB	1.00	011.71	32.74	2800
HEPIV	IF/IAF	FIKIG		TF	FB	1.00	305.89	6.20	2800
FIKIG	FAF	ZONUL/1.59 NM TO RW31		TF	FB	0.30	305.80	3.52	
ZONUL/1.59 NM TO RW31		RW31	MAP	TF	FO	0.30	305.80	1.59	
RW31	MAP	1326 MSL		CA			305.80		
1326 MSL		BEESE		DF	FO	1.00			2800

MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW31

MISSED APPROACH INSTRUCTIONS:
CLIMB TO 2800 DIRECT BEESE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT   SIDE OF COURSE   OUTBOUND   FT WITHIN   MILES OF   (IAF)
2. HOLD SE HEPIV, RT, 305.89 INBOUND, 2800 FT. IN LIEU OF PT (IAF), MAX 6000.
3. **FAC:** 305.80   **FAF:** FIKIG   **DIST FAF TO MAP:** 5.10   **DIST FAF TO THLD:** 5.10
4. **MIN ALT:** HEPIV 2800, FIKIG 2800, ZONUL/1.59 NM TO RW31 1680
5. **DIST TO THLD FROM OM:**   **MM:**   **IM:**   **150 HAT:**   **200 HAT:** 0.47   **GS ANT:**
6. **MIN GP INCPT:** 2800   **GP ALT AT FAF:** FIKIG 2800   **OM:**   **MM:**   **IM:**
7. **GP ANGLE:** 3.00   **34:1:** IS CLEAR   **20:1:** IS CLEAR   **TCH:** 49.2
8. **MSA FROM:** RW31 3100

QUALITY 35 CHECKED

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CLAPS ON T462 WESTBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ARMUW ON V175 NORTHBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON RWF VOR/DME AIRWAY RADIALS 350 CW 076.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE OLIVIA ALTIMETER SETTING; INCREASE LPV DA TO 1381 FEET; INCREASE LNAV/VNAV DA TO 1475 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CAT C AND D 1/4 SM.
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING OLIVIA RGNL ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 125.59 INBOUND.
CHART FAS OBST: 1239 TREE 450646N/0950629W.
CHART VDP AT 1.02 NM TO RW31.
WAAS CHANNEL # 72632
REFERENCE PATH ID: W31A
LTP HAE: 316.5 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - 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	1326	3/4	200	1326	3/4	200	1326	3/4	200	1326	3/4	200			
LNAV/VNAV DA	1420	3/4	294	1420	3/4	294	1420	3/4	294	1420	3/4	294			
LNAV MDA	1500	1	374	1500	1	374	1500	1	374	1500	1	374			

QUALITY
35
CHECKED

CHANGES - REASONS

1. TERMINAL ROUTES: REMOVED DWN VORTAC TO HEPIV SEGMENT - DWN VOR MON NATL PROGRAM.
2. TERMINAL ROUTES: CHANGED RWF VOR/DME TO HEPIV FROM A FEEDER TO A INITIAL SEGMENT AND ADDED NOPT TO FIX TYPE - THE ANGLE BETWEEN THE FEEDER AND THE INTERMEDIATE IS LESS THAN 90 DEGREES, 8260.3E PARA 2-3-1(A)3.
3. TERMINAL ROUTES: CHANGED FROM "ZONUL/1.60 NM TO RW31" TO "ZONUL/1.59 NM TO RW31" - SDF RELOCATED BASED ON GPA/TCH AND ALIGNED TO FAC.
4. TERMINAL ROUTES: CHANGED FAF TO SDF DISTANCE FROM 3.50 TO 3.52 - SDF RELOCATED BASED ON GPA/TCH AND ALIGNED.
5. TERMINAL ROUTES: CHANGED SDF TO MAP DISTANCE FROM 1.60 TO 1.59 - SDF RELOCATED BASED ON GPA/TCH AND ALIGNED.
6. PROFILE LINE 2: ADDED MAX HOLD-IN-LIEU ALTITUDE OF 6000 - 8260.19I, 8-6-7, B(2).
7. PROFILE LINE 4: CHANGED FROM "HEPIV 2800, FIKIG 2800, ZONUL/1.60 NM TO RW31 1680*" TO "HEPIV 2800, FIKIG 2800, ZONUL/1.59 NM TO RW31 1680" - SDF RELOCATED BASED ON GPA/TCH AND ALIGNED TO FAC.
8. PROFILE LINE 5: MOVED "200 HAT: 0.47" FROM ADDITIONAL FLIGHT DATA TO LINE 5 - PER 8260.19I 8-6-7E(3).
9. PROFILE LINE 7: ADDED 20:1 IS CLEAR - NO PENETRATIONS EXIST.
10. REMOVED RNP APCH AND ADDED RNP APCH - GPS TO PBN REQUIREMENTS NOTE - PER 8260.19I, 8-6-8B2.
11. CHANGED BACKUP ALTIMETER NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE OLIVIA ALTIMETER SETTING AND INCREASE ALL DA 55 FEET AND ALL MDA 60 FEET AND INCREASE LNAV/VNAV ALL CATS VISIBILITY 1/8 MILE AND LNAV CATS C AND D VISIBILITY 1/4 MILE" TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE OLIVIA ALTIMETER SETTING; INCREASE LPV DA TO 1381 FEET; INCREASE LNAV/VNAV DA TO 1475 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CAT C AND D 1/4 SM" - UPDATED 8260.3E TABLE 3-3-1.
12. CHANGED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 46°C" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C" - NEW EVALUATION WITH UPDATED CRITICAL TEMPERATURES.
13. CHANGED PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVAL ON RWF VOR/DME AIRWAY RADIALS 283 CW 076 AND ARRIVALS ON DWN VORTAC AIRWAY RADIALS 261 CW 321" TO "PROCEDURE NA FOR ARRIVAL ON RWF VOR/DME AIRWAY RADIALS 350 CW 076" - DWN VOR MON NATL PROGRAM.
14. CHANGED FROM "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CLAPS ON V78 WESTBOUND" TO "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CLAPS ON T462 WESTBOUND" - V78 NO LONGER EXIST.
15. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD NW, RT, 125.58 INBOUND" TO "HOLD NW, RT, 125.59 INBOUND" - BASED ON RNAV (GPS) RWY 13 HIL CHANGES.
16. ADDITIONAL FLIGHT DATA: CHANGED CHART FAS OBST FROM "1239 TREE 450645N/0950626W" TO "1239 TREE 450646N/0950629W" - NEW CONTROLLING OBSTACLE.
17. ADDITIONAL FLIGHT DATA: REMOVED "*LNAV ONLY" AND CHANGED FROM "CHART VDP AT 1.02 NM TO RW31*" TO "CHART VDP AT 0.95 NM TO RW31" - NO LONGER REQUIRED; IAW 8260.19I 8-6- 7D AND 8-6-10M (MEMO), VDP CHANGED BASED ON FAF AND SDF RELOCATION.
18. CHANGED LNAV/VNAV ALL CATS DA/HAA FROM 1527/401 TO 1420/294 AND ALL CATS VISIBILITY FROM 1 3/8 SM TO 3/4 SM - NEW CONTROLLING OBSTACLE, VIS NO LOWER THAN 3/4 SM PER ADO REQUEST.
19. CRC REMAINDER CHANGED FROM "61D1178D" TO "B0AC77EB" - FPAP COORDINATES CHANGED FROM "450743.3700N/0950903.5400W" TO "450743.3675N/0950903.5515W".

COORDINATED WITH:

A4A [ ]   ALPA [ ]   AOPA [x]   APA [x]   HAI [ ]   NBAA [ ]   OTHER: [x]   ZMP, AMGR

FLIGHT CHECKED BY		OFFICE	DATE	
SCOTT WIEBE	*Digitally signed by* **CASIMIR L TABAKA** Nov 28, 2023	FPO	11/17/2023	

DEVELOPED BY		OFFICE	DATE	
CASIMIR L. TABAKA (SILVIA YOUNG)	*Digitally signed by* **CASIMIR L TABAKA** Oct 22, 2023	AJV-A432	07/13/2023	

APPROVED BY		OFFICE	DATE	TITLE
CASIMIR L. TABAKA	*Digitally signed by* **CASIMIR L TABAKA** Oct 22, 2023	AJV-A432		MANAGER

QUALITY 35 CHECKED

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KBDH
RUNWAY	RW31
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	450646.4320N
LTP/FTP LONGITUDE	0950726.7685W
LTP/FTP ELLIPSOIDAL HEIGHT	+03165
FPAP LATITUDE	450743.3675N
FPAP LONGITUDE	0950903.5515W
THRESHOLD CROSSING HEIGHT (TCH)	00049.2
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1072
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	B0AC77EB

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03432
FPAP ORTHOMETRIC HEIGHT	+03432

QUALITY
35
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