

**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> KEKS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 16	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> ENNIS	<u>STATE</u> MT		
<u>AIRPORT ELEVATION</u> 5433	<u>TDZE</u> 5433	<u>SUPERSEDED</u> RNAV (GPS) RWY 16	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 09/15/2016	<u>MAG VAR</u> 12E	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 17 JUNE 2021	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
QUERY		NYMPF		TF	FB	1.00	334.05	20.00	13000
NYMPF		MDISN		TF	FO	1.00	333.97	6.28	9900
HIA VOR/DME	IAF	IBAYA	NOPT	TF	FB	1.00	112.67	14.89	11000
IBAYA		MDISN		TF	FB	1.00	112.84	10.26	9900
JFFRS	IAF	MDISN	NOPT	TF	FB	1.00	176.83	12.11	9900
MDISN	IF/IAF	RANBW		TF	FB	1.00	164.58	10.39	8600
RANBW	FAF	FEDNU/3.67 NM TO RW16		TF	FB	0.30	164.60	6.15	
FEDNU/3.67 NM TO RW16		RW16	MAP	TF	FO	0.30	164.60	3.67	
RW16	MAP	6400 MSL		CA			164.60		6400
6400 MSL		HUDAT		DF	FB	1.00			
HUDAT		MDISN		TF	FO	1.00	011.83	11.30	9900

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW16

MISSED APPROACH INSTRUCTIONS:

(DO NOT EXCEED 185 KIAS UNTIL MDISN)
CLIMB TO 6400 THEN CLIMBING RIGHT TURN TO 9900 DIRECT HUDAT AND ON TRACK 011.83 TO MDISN AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

QUALITY
16
CHECKED

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD N MDISN, RT, 164.58 INBOUND, 9900 FT. IN LIEU OF PT (IAF), MAX 10900.

3. FAC:

164.60

FAF: RANBW

DIST FAF TO MAP: 9.82

DIST FAF TO THLD: 9.82

4. MIN ALT: MDISN 9900, RANBW 8600, FEDNU/3.67 NM TO RW16 6640

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

275 HAT: 0.75

GS ANT:

6. MIN GP INCPT:

8600

GP ALT AT FAF :

RANBW 8600

OM:

MM:

IM:

7. GP ANGLE:

3.00

34:1:

IS NOT CLEAR

20:1:

IS CLEAR

TCH:

37.6

8. MSA FROM: RW16 12600

PBN REQUIREMENTS NOTE:

RNP APCH - GPS

NOTES:

CHART NOTE: CIRCLING NA EAST OF RWY 16-34.
CHART NOTE: RWY 16 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT QUERY ON V343 SOUTHBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON HIA VOR/DME AIRWAY RADIALS 078 CW 186.

ADDITIONAL FLIGHT DATA:

CHART FAS OBST: 5671 TREE (30-028930) 451817N/1113817W.
5600 AAO 452652N/1113829W.
CHART VDP AT 2.15 NM TO RW16
WAAS CHANNEL # 65735
REFERENCE PATH ID: W16A
CHART CIRCLING ICON.
LTP HAE: 1645.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ CAT A, B, C, D 1200-5

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	5708	1	275	5708	1	275	5708	1	275	5708	1	275			
LNAV/VNAV DA	6625	5	1192	6625	5	1192	6625	5	1192	6625	5	1192			
LNAV MDA	6160	1	727	6160	1 1/4	727	6160	2	727	6160	2	727		QUALITY 16 CHECKED	
CIRCLING	6160	1	727	6160	1 1/4	727	6160	2	727	6160	2 1/4	727			

CHANGES - REASONS

1. REMOVED STEPDOWN FIX DIRLE, ADDED NEW STEPDOWN FIX FEDNU WITH ALTITUDE 6640 FT - PER ATC/FPT APPROVED PROCEDURE REDESIGN.
2. MOVED PFAF RANBW FIX AND CHANGED IF/IAF MDISN TO RANBW DISTANCE FROM 10.50 NM TO 10.39 NM - PER ATC/FPT APPROVED PROCEDURE REDESIGN.
3. CHANGED MISSED APPROACH ALTITUDE AT MDISN FROM 11900 TO 9900 - ELIMINATES CLIMB-IN-HOLD REQUIREMENTS.
4. CHANGED INITIAL SEGMENT HIA VOR/DME TO MDISN, ADDED STEPDOWN FIX IBAYA - ALLOWS ALTITUDE AT MDISN OF 9900 FT, PER ATC/FPT APPROVED PROCEDURE REDESIGN.
5. CHANGED PROFILE LINE 2 INBOUND COURSE FROM 164.59 TO 164.58 - NEW EVALUATION.
6. RAISED LPV DA ALL CATS FROM 5698 TO 5708 - NEW SURVEY/AIRNAV DATA.
7. RAISED LNAV/VNAV DA/HAT/VIS ALL CATS FROM 6183/760/3 SM TO 6625/1192/5 SM - NEW EVALUATION AND SURVEY/AIRNAV DATA.
8. RAISED LNAV MDA/HAT ALL CATS FROM 6100/677 TO 6160/727 AND CIRCLING MDA/HAA ALL CATS FROM 6100/677 TO 6160/727 - NEW EVALUATION AND SURVEY/AIRNAV DATA.
9. RAISED CIRCLING ALL CATS MDA/HAA FROM 6100/6817 TO 6160/727 - NEW EVALUATION AND HIGHER LNAV MINIMUMS.
10. RAISED LNAV CAT B VISIBILITY FROM 1 SM TO 1 1/4 SM, CAT C FROM 1 7/8 SM TO 2 SM AND CAT D FROM 1 7/8 SM TO 2 SM - NEW EVALUATION.
11. RAISED CIRCLING CAT B VISIBILITY FROM 1 SM TO 1 1/4 SM - NEW EVALUATION
12. ADDED "RNP APCH-GPS" TO PBN REQUIREMENTS NOTES - IAW 8260.19I 8-6-8(B)(2).
13. REMOVED CHART NOTE: "DME/DME RNP-0.3 NA" - IAW 8260.19I 4-6-10(E).
14. PROFILE SECTION, LINE 7, ADDED "34:1 IS NOT CLEAR" AND "20:1 IS CLEAR" - UPDATED SURVEY DATA AND 8260.19I REQUIREMENT.
15. CHANGED ALTERNATE MINIMUMS FROM "CAT A, B, C, D 800-2 1/4" TO "CAT A, B, C, D 1200-5" - NEW EVALUATION.
16. ADDED CHART NOTE: RWY 16 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS DOCUMENTED, NEW EVALUATION.
17. CHANGED ADDITIONAL FLIGHT DATA FROM "CHART VDP AT 2.05 NM TO RW16" TO "CHART VDP 2.15 NM TO RW16" - NEW EVALUATION.
18. REMOVED BARO-VNAV NOTE TEMPERATURE LIMIT NOTE AND REPLACED WITH "BARO-VNAV NA" - PRECIPITOUS TERRAIN IN FINAL.
19. FAS DATA BLOCK INFORMATION CHANGES: LTP/FTP LAT/LONG CHANGED FROM 451700.1975N/1113858.5850W TO 451710.0515N/1113859.2370W, FPAP LAT/LONG CHANGED FROM 451531.2675/1113851.1270W TO 451541.1215N/1113851.7780W, LENGTH OFFSET FROM 0736 TO 0432, LTP/FPAP ORTHOMETRIC HEIGHT CHANGED OM +16529 TO +16559, LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM +16428 TO +16458 AND RESULTANT CRC REMAINDER CODE CHANGED FROM EA944E6F TO 69AB675F.
20. ADDED "CHART FAS OBST: 5671 TREE (30-028930) 451817N/1113817W" - REQUIRED FOR LNAV STEPDOWN OBSTACLE.
21. ADDED "MAX 10900" FOR HOLD-IN-LIEU ALTITUDE AT MDISN TO PROFILE LINE 2 - IAW 8260.19I.
22. REMOVED VGSI AND RNAV GLIDEPATH NON-COINCIDENT NOTE - NO LONGER REQUIRED.
23. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 6400 THEN CLIMBING RIGHT TURN TO 11900 DIRECT HUDAT AND ON TRACK 011.83 TO MDISN AND HOLD, CONTINUE CLIMB-IN-HOLD TO 11900" TO "(DO NOT EXCEED 185 KIAS UNTIL MDISN) CLIMB TO 6400 THEN CLIMBING RIGHT TURN TO 9900 DIRECT HUDAT AND ON TRACK 011.83 TO MDISN AND HOLD" - SPEED RESTRICTION FOR OBSTACLE AVOIDANCE, IAW 8260.9I 4-6-10.G, HOLD ALTITUDE LOWERED WITH FPT/ATC APPROVAL, NO LONGER REQUIRED CLIMB IN HOLD.

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZAN, AMGR.

FLIGHT CHECKED BY

THOMAS E MOLOKIE

*Digitally signed by***JON DENTON****OFFICE**

FICO

DATE

04/21/2021

Apr 23, 2021

DEVELOPED BY

JON DENTON (GORDON LEMON)

*Digitally signed by***JON DENTON****OFFICE**

AJV-A432

DATE

01/04/2021

Apr 23, 2021

APPROVED BY

LONNIE EVERHART

*Digitally signed by***JON DENTON****OFFICE**

AJV-A430

DATE**TITLE**

MANAGER

Apr 23, 2021



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KEKS
RUNWAY	RW16
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W16A
LTP/FTP LATITUDE	451710.0515N
LTP/FTP LONGITUDE	1113859.2370W
LTP/FTP ELLIPSOIDAL HEIGHT	+16458
FPAP LATITUDE	451541.1215N
FPAP LONGITUDE	1113851.7780W
THRESHOLD CROSSING HEIGHT (TCH)	00037.6
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0432
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	69AB675F

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+16559
FPAP ORTHOMETRIC HEIGHT	+16559

