

**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</u> BAUDETTE INTL	<u>AIRPORT ID</u> KBDE	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> BAUDETTE	<u>STATE</u> MN	
<u>AIRPORT ELEVATION</u> 1085	<u>TDZE</u> 1085	<u>SUPERSEDED</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 07/18/2019	<u>MAG VAR</u> 4E	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<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>
WAGLO	IAF	ORINE		TF	FB	1.00	026.58	5.00	2700
ORINE	IF	DOTBE		TF	FB	1.00	116.63	6.10	2700
DOTBE	FAF	RW12	MAP	TF	FO	0.30	116.73	4.86	
RW12	MAP	1481 MSL		CA			116.73		
1481 MSL		HILGO		DF	FB	1.00			
HILGO		ZEBES		TF	FO	1.00	220.13	9.56	3000

MISSED APPROACH

MAP:

LNAV/VNAV: DA
LNAV: RW12

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT HILGO AND RIGHT TURN ON TRACK 220.13 TO ZEBES AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT ORINE
3. FAC: 116.73 FAF: DOTBE DIST FAF TO MAP: 4.86 DIST FAF TO THLD: 4.86
4. MIN ALT: ORINE 2700, DOTBE 2700
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 396 HAT: 1.10 GS ANT:
6. MIN GP INCPT: 2700 GP ALT AT FAF : DOTBE 2700 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 47.2
8. MSA FROM: RW12 2900

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.

ADDITIONAL FLIGHT DATA:

CHART BEAVER MOA
CHART VDP AT 1.34 NM TO RW12*
*LNAV ONLY
FAS OBST: 1279 AAO 484543N/0944132W.
CHART 1567 TOWER 484642N/0944230W.
HOLD S, LT, 009.84 INBOUND

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
LNAV/VNAV DA	1481	1 1/2	396	1481	1 1/2	396	1481	1 1/2	396	1481	1 1/2	396			
LNAV MDA	1560	1	475	1560	1	475	1560	1 3/8	475	1560	1 1/2	475			

CHANGES - REASONS

ALL CHANGES FROM AMDT 1A HAVE BEEN INCORPORATED INTO THIS PROCEDURE.

1. REMOVED FEEDER FROM ZEBES - ATC REQUEST
2. UPDATED SECONDARY ALTIMETER NOTES AND MOVED FROM THE -3 TO THE BACK OF THE -9 - 8260.19H 8-6-9
3. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ZEBES VIA V82 SOUTHBOUND - ZEBES FEEDER HAS BEEN REMOVED PER ATC.
4. REMOVED CHART FAS OBST: 1184 TREE 484408N/0943842W - ONLY NPA FINAL OBSTACLE LISTED AS FAS OBSTRUCTION.
5. CHANGED ADDITIONAL FLIGHT DATA NOTE FROM CHART FAS OBST: 1279 AAO 484543N/0944132W TO FAS OBST: 1279 AAO 484543N/0944132W - AAO'S ARE NOT CHARTED AS FAS OBST.
6. ADDED "20:1 IS CLEAR" ON LINE 7 - 20:1 IS CLEAR
7. CHANGED LNAV/VNAV AND LNAV HAT FROM 395/474 TO 396/475 - TDZE UPDATED FROM 1086 TO 1085.
8. LNAV CAT C VISIBILITY CHANGED FROM 1 1/4 SM TO 1 3/8 SM - 8260.3D TABLE 3-3-1.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMP, AMGR

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

DEVELOPED BY

WARDELL HENNING (TYLER MITCHELL)

APPROVED BY

GEORGE DAVIS

Digitally signed by

WARDELL HENNING

Dec 03, 2019

Digitally signed by
WARDELL HENNING
Dec 03, 2019

OFFICE

Digitally signed by

WARDELL HENNING

Dec 03, 2019

DATE

OFFICE

AJV-A432

OFFICE

AJV-A430

DATE

11/04/2019

DATE

TITLE

MANAGER



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
BAUDETTE INTL	KBDE	RNAV (GPS) RWY 12	1B	BAUDETTE	MN	1085	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM TO
WAGLO ORINE

<u>RNP</u>	<u>DISTANCE</u> 5.00	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
3.TOWER (27-020034)	484611.73N/0945740.71W		1464	50	20	2C	1000					2500
4.TERRAIN	484430.00N/0945330.00W		1175 (1200)								AS1500	2700

COMPUTATIONS

ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

INTERMEDIATE

FROM TO
ORINE DOTBE

<u>RNP</u>	<u>DISTANCE</u> 6.10	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
5.AAO	484642.00N/0944927.00W		1326	164	98	4E	500				AT776 AC98	2700
6.TERRAIN	484642.00N/0944927.00W		1126 (1100)								AS1500	2600

COMPUTATIONS

ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



FINAL: LNAV/VNAV

FROM

DOTBE

TO

RW12

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	4.86		DA			396						
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
7.TREE	484407.51N/0943842.12W		1184	50	20	2C		23.4:1			AC20	1481

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

FINAL: LNAV

FROM

DOTBE

TO

RW12

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	4.86		RW12			475						
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
8.AAO	484542.99N/0944131.63W		1279	50	20	2C	250				XP31	1560

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

XP: LNAV FINAL-TO MAINTAIN CURRENT PUBLISHED MDA.



MISSED APPROACH : LNAV/VNAV

FROM

DA

TO

ZEBES

RNP	DISTANCE	PAT	MAP	HAT			HMAS 1320					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3000
9.TOWER (27-000745)	483650.00N/0943319.00W		1850	500	50	5D	1000					2900
10.TERRAIN	483421.00N/0943942.00W		1198 (1200)								AS1500	2700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LNAV

FROM

RW12

TO

ZEBES

RNP	DISTANCE	PAT	MAP	HAT			HMAS 1460					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3000
9.TOWER (27-000745)	483650.00N/0943319.00W		1850	500	50	5D	1000					2900
10.TERRAIN	483421.00N/0943942.00W		1198 (1200)								AS1500	2700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☐ CAT A

☐ CAT B

☐ CAT C

☐ CAT D

☐ CAT E

☒ NOT AUTHORIZED



MSA

CENTER

RW12

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TWR (27-000745)	483650.00N/0943319.00W	156	07.6	1850	500	50	5D	1000			2900

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

100' VEGETATION USED PER FPT

LPV, TAA, AND STANDARD "T" NOT DEVELOPED PER FPT

LNAV/VNAV AND LNAV INTERMEDIATE SEGMENTS HAVE SAME CONTROLLING OBSTACLE AND AIRSPACE.

OBS #3 2C VERIFIED 2007-AGL-2837-OE.

LNAV/VNAV SLOPE:
INNER: 23.4:1
OUTER: 34:1



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
PNM FSS, ZMP ARTCC

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KBDE	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KBDE	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> AWOS	<u>LOCATION</u> KRRT	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KRRT	<u>DISTANCE</u> 31.864	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 75

WX REMARKS:
RASS PRESSURE PATTERNS THE SAME KBDE 1086, KRRT 982 RA = 74.68.

PRIMARY NAVAID

MONITOR POINT

HRS OPERATION

CAT

<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW12 - HIRL (PCL), REIL (PCL), PAPI-4L (PCL)	PIR-G	
RW30 - HIRL (PCL), REIL (PCL), PAPI-4L (PCL)	PIR-G	

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 1084.8	<u>TCH</u> 47.2	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 47.2
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u> -17C	<u>CRITICAL HIGH</u> +54C	<u>ACT</u> -17C	<u>APT ISA</u> +12.85C
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CRITICAL TEMPERATURE REMARKS:
AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD -30C ISA DEVIATION. CRITICAL LOW TEMPERATURE BASED ON ACT. DESCENT RATE (FPM): STANDARD TEMP 970 HIGH TEMP 1279.



"VISUAL PORTION OF FINAL" PENETRATIONS

Final Type	LNAV/VNAV & LNAV FINAL		
34:1			
1144 TREE (27-059727) 484403.15N/0943746.94W (7.56)		1170 TREE (27-070755) 484411.28N/0943757.90W (2.59)	
1145 TREE (27-070646) 484406.69N/0943747.97W (1.41)		1137 TREE (27-070733) 484405.00N/0943745.00W (1.02)	
1137 TREE (27-044623) 484402.36N/0943747.63W (0.6)			

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or
5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

CONTINGENCY NOTE: BARO-VNAV AND VDP NA WHEN USING WARROAD ALTIMETER SETTING. WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WARROAD ALTIMETER SETTING AND INCREASE LNAV/VNAV DA TO 1556 FEET; INCREASE ALL MDA 80 FEET AND LNAV CAT C VISIBILITY 1/4 SM, CAT D 1/8 SM.



<u>AIRPORT</u> BAUDETTE INTL	<u>AIRPORT ID</u> KBDE	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>AMDT NO.</u> 1B	<u>CITY</u> BAUDETTE	<u>STATE</u> MN	<u>AIRPORT ELEVATION</u> 1085	<u>FACILITY</u> RNAV
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PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	3.04
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.69
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	120.73
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1100
DISTANCE FROM	THLD	TO 1500FT POINT	4.66
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	2.00
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	120.73
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	1100

THRESHOLD
COORDINATES
(IF STR-IN)

484356.29N/0943719.16W

ARP COORDINATES

484348.90N/0943639.80W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 13 DISTANCE 0.53 NM

FAF
COORDINATES

484625.30N/0944337.62W

FIX NAME
COORDINATES

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED

QUALITY
10
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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<u>AIRPORT</u> BAUDETTE INTL	<u>AIRPORT ID</u> KBDE	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>AMDT NO.</u> 1B	<u>CITY</u> BAUDETTE	<u>STATE</u> MN	<u>AIRPORT ELEVATION</u> 1085	<u>FACILITY</u> RNAV
PART E: PREPARED BY							
<u>NAME</u> WARDELL HENNING (TYLER MITCHELL)			<u>OFFICE</u> AJV-A432	<u>DATE</u> 11/04/2019	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST		
<div>QUALITY 10 CHECKED</div>							