

**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> BELLE FOURCHE MUNI	<u>AIRPORT ID</u> KEFC	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> BELLE FOURCHE	<u>STATE</u> SD
<u>AIRPORT ELEVATION</u> 3191	<u>TDZE</u> 3180	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 03/05/2015	<u>MAG VAR</u> 11E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1990

**TAA**

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 231/30 CW 294/30	NOPT	WUNKI	IF/IAF	7600
2. 294/30 CW 051/30	NOPT	294/4 CW 051/4		9000
3. 294/4 CW 051/4		WUNKI	IF/IAF	7600
4. 051/30 CW 231/30		051/4 CW 231/4		8600
5. 051/4 CW 231/4		WUNKI	IF/IAF	7600

**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>
WUNKI	IF/IAF	GAGPY		TF	FB	1.00	321.35	7.62	5900
GAGPY	FAF	COCAK/3.10 NM TO RW32		TF	FB	0.30	321.29	5.31	
COCAK/3.10 NM TO RW32		RW32	MAP	TF	FO	0.30	321.29	3.10	
RW32	MAP	3800 MSL		CA			321.29		3800
3800 MSL		WUNKI		DF	FO	1.00			7600

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW32

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 3800 THEN CLIMBING RIGHT TURN TO 7600 DIRECT WUNKI AND HOLD, CONTINUE CLIMB-IN-HOLD TO 7600.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



**PROFILE:**

- 1. **PT**      **SIDE OF COURSE**                      **OUTBOUND**                      **FT WITHIN**                      **MILES OF (IAF)**
- 2. HOLD SE WUNKI, RT, 321.35 INBOUND, 7600 FT. IN LIEU OF PT (IAF), MAX 10000.
- 3. **FAF:** 321.29      **FAF:** GAGPY                      **DIST FAF TO MAP:** 8.41                      **DIST FAF TO THLD:** 8.41
- 4. **MIN ALT:** WUNKI 7600, GAGPY 5900, COCAK/3.10 NM TO RW32 4200\*
- 5. **DIST TO THLD FROM OM:**                      **MM:**                      **IM:**                      **150 HAT:**                      **373 HAT:** 1.05                      **GS ANT:**
- 6. **MIN GP INCPT:** 5900                      **GP ALT AT FAF :** GAGPY 5900                      **OM:**                      **MM:**                      **IM:**
- 7. **GP ANGLE:** 3.00                      **34:1:** IS CLEAR                      **20:1:** IS CLEAR                      **TCH:** 40.0
- 8. **MSA FROM:**

**PBN REQUIREMENTS NOTE:**

RNP APCH.

**NOTES:**

CHART NOTE: BARO-VNAV NA.  
 CHART NOTE: USE ELLSWORTH ALTIMETER SETTING.  
 CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

**ADDITIONAL FLIGHT DATA:**

\*LNAV ONLY  
 CHART CIRCLING ICON.  
 WAAS CHANNEL #82728  
 REFERENCE PATH ID: W32A  
 CHART FAS OBST: 3235 BUILDING 444348N/1035113W.  
 3730 AAO 443654N/1034456W.  
 LTP HAE: 953.9 M

**MINIMUMS:**

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

**ALTERNATE:** NA

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	3553	1	373	3553	1	373	3553	1	373		NA					
LNAV/VNAV DA	3558	1	378	3558	1	378	3558	1	378		NA					
LNAV MDA	3660	1	480	3660	1	480	3660	1 3/8	480		NA					
CIRCLING	3780	1	589	3820	1	629	3820	1 3/4	629		NA					



**CHANGES - REASONS**

1. CHANGED LPV DA FROM 3556 TO 3553. - NEW CONTROLLING OBSTACLE IN FINAL.
2. CHANGED LNAV/VNAV DA FROM 3556 TO 3558 AND VISIBILITY FROM 1 1/4 TO 1. - NEW CONTROLLING OBSTACLE IN FINAL AND VISCHECK EVALUATION TOOL.
3. CHANGED LNAV MDA FROM 3640 TO 3660. - NEW CONTROLLING OBSTACLE IN FINAL.
4. ADDED "CHART CIRCLING ICON". - NEW CIRCLING RADIUS APPLIED.
5. CHANGED CHART FAS OBST FROM 3191 FENCE 444342N/1035121W TO 3235 BUILDING 444348N/1035113W. - NEW CONTROLLING OBSTACLE.
6. CHANGED CHART NOTE FROM DME/DME RNP-0.3 NA TO PBN EQUIPMENT REQUIREMENTS NOTE: RNP APCH. - DME/DME NOTE NO LONGER APPLICABLE, PBN EQUIPMENT REQUIREMENTS NOTES NOW REQUIRED PER 8260.19H AND MEMO 257.
7. MISSED APPROACH CLIMB TO ALTITUDE CHANGED FROM 3700 TO 3800. - CAT C MISSED APPROACH CLEARANCE ALTITUDE TO LOW.
8. MISSED APPROACH HOLDING / HOLD IN LIEU/ AND TAA ARRIVAL ALTITUDE AT WUNKI CHANGED FROM '7400' TO '7600' - DISCOVERY OF HIGHER CONTROLLER IN CLIMB IN HOLD EVALUATION.
9. REMOVED "VISIBILITY REDUCTION BY HELICOPTER NA." NOTE. - 20:1 PENETRATIONS HAVE BEEN REMOVED.
10. REMOVED "CHART NOTE: WHEN VGSI INOP, STRAIGHT IN/CIRCLING RWY 32 NA AT NIGHT." - 20:1 SURFACE ALL CLEAR.
11. CRC REMAINDER CHANGED FROM "60E12FA6" TO "1C5CAD06" - UPDATED VERTICAL ANGLE LIMIT.
12. CIRCLING CAT A MDA/HAA CHANGED FROM 3800/609 TO 3780/589. - NEW TERRAIN EVALUATION AND VEGETATION PLACEMENT.
13. UPDATED FROM 34:1 IS NOT CLEAR TO 34:1 IS CLEAR AND ADDED 20:1 IS CLEAR. - NEW TERRAIN AND SOFTWARE EVALUATION PERFORMED.
14. TAA SECTION 294/051 OUTER MIN ALTITUDE CHANGED FROM 9300 TO 9000. - LOWER MINS ACHIEVABLE AND UTILIZED CARDINAL ALTITUDE.



COORDINATED WITH:

A4A  ALPA  AOPA  APA  HAI  NBAA  OTHER: ZDV, AMGR

FLIGHT CHECKED BY

BRYAN VEIT

*Digitally signed by*  
**ROBERT G HAMILTON**  
Sep 04, 2018

OFFICE

FICO

DATE

8/29/18

DEVELOPED BY

ROBERT G HAMILTON (AUSTIN GOTCHER)

*Digitally signed by*  
**ROBERT G HAMILTON**  
Sep 04, 2018

OFFICE

AJV-5422

DATE

06/22/2018

APPROVED BY

JULIE MORGAN

*Digitally signed by*  
**ROBERT G HAMILTON**  
Sep 04, 2018

OFFICE

AJV-5420

DATE

TITLE  
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KEFC
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	444343.4880N
LTP/FTP LONGITUDE	1035128.6455W
LTP/FTP ELLIPSOIDAL HEIGHT	+09539
FPAP LATITUDE	444502.3200N
FPAP LONGITUDE	1035226.9000W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1376
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER 1C5CAD06

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+09693
FPAP ORTHOMETRIC HEIGHT	+09693

