

**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><b>AIRPORT</b></u> BLACK HILLS-CLYDE ICE FIELD	<u><b>AIRPORT ID</b></u> KSPF	<u><b>PROCEDURE NAME</b></u> RNAV (GPS) RWY 13	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-D	<u><b>CITY</b></u> SPEARFISH	<u><b>STATE</b></u> SD
<u><b>AIRPORT ELEVATION</b></u> 3933	<u><b>TDZE</b></u> 3884	<u><b>SUPERSEDED</b></u> RNAV (GPS) RWY 13	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-C	<u><b>DATED</b></u> 04/30/2015	<u><b>MAG VAR</b></u> 11E
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 28 FEBRUARY 2019	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></u>	<u><b>EPOCH YEAR</b></u> 1990

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
BFFLO		JUNSI		TF	FB	2.00	260.96	39.65	7000
KARAS		ROBIT		TF	FB	2.00	011.86	18.07	8300
JUNSI	IAF	DRACO	NOPT	TF	FB	1.00	214.13	8.20	7000
ROBIT	IAF	DRACO	NOPT	TF	FB	1.00	033.94	8.20	7000
DRACO	IF/IAF	SOPHI		TF	FB	1.00	124.03	8.01	5600
SOPHI	FAF	RW13	MAP	TF	FO	0.30	124.12	5.23	
RW13	MAP	4600 MSL		CA			124.12		4600
4600 MSL		ELRAP		DF	FO	1.00			7000

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW13

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 4600 THEN CLIMBING LEFT TURN TO ELRAP AND HOLD, CONTINUE CLIMB-IN-HOLD TO 7000.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW DRACO, RT, 124.03 INBOUND, 7000 FT. IN LIEU OF PT (IAF), MAX 14000.

3. FAC: 124.12      FAF: SOPHI      DIST FAF TO MAP: 5.23      DIST FAF TO THLD: 5.23

4. MIN ALT: DRACO 7000, SOPHI 5600

5. DIST TO THLD FROM OM:      MM:      IM:      150 HAT:      335 HAT: 0.89      GS ANT:      MM:      IM:

6. MIN GP INCPT: 5600      GP ALT AT FAF : SOPHI 5600      OM:

7. GP ANGLE: 3.00      34:1: IS NOT CLEAR      20:1: IS CLEAR      TCH: 50.0

8. MSA FROM: RW13 9000

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 4, 8, 22 AND 26.  
CHART NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -22°C OR ABOVE 54°C.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BFFLO ON V491 SOUTHBOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT KARAS ON V86 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.  
CHART VDP AT 2.45 NM TO RW13\*  
\*LNAV ONLY  
WAAS CHANNEL #70621  
REFERENCE PATH ID: W13A  
CHART FAS OBST: 4460 TREE 443047N/1034831W.  
HOLD NE, LT, 214.00 INBOUND  
LTP HAE: 1169.2 M

MINIMUMS:

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

ALTERNATE: NA ☐ CAT A, B 1000-4, CAT C 1700-4

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	4219	1 1/8	335	4219	1 1/8	335	4219	1 1/8	335		NA				
LNAV/VNAV DA	4852	4	968	4852	4	968	4852	4	968		NA				
LNAV MDA	4720	1	836	4720	1 1/4	836	4720	2 1/2	836		NA				
CIRCLING	4760	1 1/4	827	4920	1 1/2	987	5540	3	1607		NA				



CHANGES - REASONS

1. RAISED LNAV/VNAV DA/HAT FROM 4811/927 TO 4852/968 - NEW CONTROLLING OBSTACLE, TREE 46-031629, 443047.25N/1034831.14W, 4460 MSL AND ACCURACY ADJ.
2. RAISED LNAV ALL CATS MDA/HAA FROM 4700/816 TO 4720/836 - NEW CONTROLLING OBSTACLE, TREE 46-03169, 443047.25N/1034831.14W, 4460 MS.
3. RAISED CIRCLING MDA/HAA CAT B FROM 4780/847 TO 4920/987 AND CAT C FROM 4880/947 TO 5540/1607 - NEW CIRCLING CRITERIA APPLIED, CAT B CIRCLING RADIUS DIFFERS FROM THE RNAV GPS RWY 31, PULLS IN DIFFERENT OBSTACLE.
4. INCREASED CIRCLING VISIBILITY CAT B FROM 1 1/4 SM TO 1 1/2 SM AND CAT C FROM 2 3/4 TO 3 SM - NEW CIRCLING CRITERIA APPLIED.
5. ADDED "CHART CIRCLING ICON" TO ADDITIONAL FLIGHT DATA - ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.
6. ADDED CIRCLING NA NOTE - PER AIS SOP "UNPAVED RUNWAYS" REVISION 1.2 DATED 1/4/2018.
7. ADDED NOTE "20:1 IS CLEAR" TO LINE 7 - PER 8260.19H PARA 8-6-7 G.(3).
8. ADDED NOTE "34:1 IS NOT CLEAR" TO LINE 7 - PER 8260.19H PARA 8-6-7 G.(3).
9. ADDED NOTE "CHART NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM" - PER 8260.19H PARA 8-6-11 K. (3).
10. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 4400 THEN CLIMBING LEFT TURN TO 7000 DIRECT ELRAP AND HOLD" TO "CLIMB TO 4600 THEN CLIMBING LEFT TURN TO 7000 DIRECT ELRAP AND HOLD, CONTINUE CLIMB-IN-HOLD TO 7000" - CLIMB-IN-HOLD REQUIRED, RETAIN PUBLISHED LPV MINIMUMS.
11. CRC REMAINDER CHANGED FROM "FD3D72CD" TO "CF6BD61D" - LTP/FTP ELLIPSOIDAL HEIGHT DECREASED 1 FOOT AND MATCHED FPAP COORINATES IN TARGETS.
12. UPDATED BARO-VNAV NOTE TO REMOVE FAHRENHEIT TEMPERATURES - IAW 8260.19H 8-6-9.S.
13. ADDED VDP - PROCEDURE CURRENTLY MEETS CRITERIA FOR PUBLISHING OF VDP, NO 20:1S EXIST.
14. REMOVED CHART NOTE "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA." - KSPF IS ON WMSCR.

PDF EDITS:  
FORM 8260-9, PAGE 8, BACKUP WX SERVICE - REMOVED KRAP INFORMATION TO MATCH RNAV GPS RWY 31 BEING PUBLISHED.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZDV, ELLSWORTH APP CON, AMGR

FLIGHT CHECKED BY

THOMAS CONKLIN

Digitally signed by

DAVID TEFFETELLER

Dec 10, 2018

OFFICE

FICO

DATE

12/4/18

DEVELOPED BY

LONNIE EVERHART (SCOTT LINDHOLM)

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DAVID TEFFETELLER

Dec 10, 2018

OFFICE

AJV-5400

DATE

08/28/2018

APPROVED BY

LONNIE EVERHART

Digitally signed by

DAVID TEFFETELLER

Dec 10, 2018

OFFICE

AJV-5400

DATE

TITLE

MANAGER



**FAS DATA BLOCK INFORMATION**

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KSPF
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	442926.8365N
LTP/FTP LONGITUDE	1034749.2665W
LTP/FTP ELLIPSOIDAL HEIGHT	+11692
FPAP LATITUDE	442823.6275N
FPAP LONGITUDE	1034621.5550W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0800
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	CF6BD61D

**ADDITIONAL PATH POINT RECORD INFORMATION**

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+11838
FPAP ORTHOMETRIC HEIGHT	+11838

