

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> 6V4	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> WALL	<u>STATE</u> SD
<u>AIRPORT ELEVATION</u> 2813	<u>TDZE</u> 2812	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u> NONE	<u>DATED</u>
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> CONCURRENT WITH 23-AGL-35	<u>MAG VAR</u> 6E <u>EPOCH YEAR</u> 2030 <u>CANCEL/SUSPEND</u>

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
GGRAS	IF/IAF	LANSS		TF	FB	1.00	309.22	4.00	4500
LANSS	FAF	RW31	MAP	TF	FO	0.30	309.17	5.16	
RW31	MAP	3213 MSL		CA			309.17		
3213 MSL		WASTA		DF	FO	1.00			4600

MISSED APPROACH

MAP:

LNAV: RW31

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4600 DIRECT WASTA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD SE GGRAS, RT, 305.22 INBOUND, 5000 IN LIEU OF PT (IAF), MAX 6000.					
3. FAC: 309.17	FAF: LANSS		DIST FAF TO MAP: 5.16	DIST FAF TO THLD: 5.16	
4. MIN ALT: GGRAS 5000, LANSS 4500					
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	GS ANT:	
6. MIN GP INCPT:	GP ALT AT FAF:			OM:	MM: IM:
7. GP ANGLE:	34:1: IS NOT CLEAR	20:1: IS CLEAR	TCH:		
8. MSA FROM: RW31 4500					



PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: CIRCLING NA TO RWYS 36 AND 18.
CHART NOTE: USE RAP ALTIMETER SETTING; WHEN NOT RECEIVED, USE PHP ALTIMETER SETTING AND INCREASE ALL MDAS 40 FEET AND LNAV VISIBILITY CAT C 1/8 SM.

ADDITIONAL FLIGHT DATA:

CHART: RAP ASOS.
LANSS TO RW31: 3.00/44.
FAS OBST: 2992 AAO 435606N/1021118W.
HOLD NW, RT, 125.01 INBOUND.

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
LNAV MDA	3380	1	568	3380	1	568	3380	1 5/8	568		NA				
CIRCLING	3420	1	607	3420	1	607	3440	1 3/4	627		NA				

CHANGES - REASONS

COORDINATED WITH:

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

FLIGHT CHECKED BY

MATTHEW A HAUG

Digitally signed by

ALLAN WILL

Jun 15, 2026

OFFICE

AJF

DATE

05/21/2026

DEVELOPED BY

ALLAN WILL (STEVEN BROWN)

Digitally signed by

ALLAN WILL

Jun 15, 2026

OFFICE

AJV-A33

DATE

02/24/2026

APPROVED BY

KYLE THOMPSON

Digitally signed by

ALLAN WILL

Jun 15, 2026

OFFICE

AJV-A33

DATE

TITLE
MANAGER



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

<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
6V4	RNAV (GPS) RWY 31	ORIG	WALL	SD	2813	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INTERMEDIATE

FROM GGRAS (IF/IAF) **TO** LANSS

RNP 1.00 **DISTANCE** 4.00 **PAT** **MAP** **HAT** **HMAS**

<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>
TOWER (46-000612)	435608.00N/1020831.00W	3032	250	50	4D	500				AT968	4500
TERRAIN	435454.00N/1020942.00W	2746 (2700)								AS1500	4200

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL: LNAV

FROM LANSS **TO** RW31

RNP 0.30 **DISTANCE** 5.16 **PAT** **MAP** RW31 **HAT** 568 **HMAS**

<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>
AAO	435606.00N/1021118.00W	2992	215	8	4B	250				RA129	3380

COMPUTATIONS

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

SEGMENT REMARKS:



HOLD-IN-LIEU OF PT

FROM

GGRAS

TO

P-6

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u> P-6	<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>
AAO	434642.00N/1020039.00W	3097	215	8	4B	1000				AT903	5000
TERRAIN	434642.00N/1020039.00W	2896 (2900)								AS1500	4400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LNAV

FROM

RW31

TO

WASTA

<u>RNP</u> 0.30-1.00	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u> 3136			
<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>
							ASC				4600
AAO	440239.00N/1021851.00W	3091	215	8	4B	1000					4100
TERRAIN	440239.00N/1021845.00W	2893 (2900)								AS1500	4400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

6V4

PROCEDURE NAME

RNAV (GPS) RWY 31

AMDT NO.

ORIG

CITY

WALL

STATE

SD

AIRPORT ELEVATION

2813

FACILITY

RNAV

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☐ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
WATER_TOWER (46-036386)	435902.09N/1021413.93W	1.34	607	2986	20	3	1A	300		RA129	3420
CATEGORY B											
WATER_TOWER (46-036386)	435902.09N/1021413.93W	1.91	607	2986	20	3	1A	300		RA129	3420
CATEGORY C											
TREE	435730.00N/1021415.00W	3.01	627	3003	215	8	4B	300		RA129	3440

CIRCLING REMARKS:

MSA

CENTER

RW31

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	AAO	440315.00N/1025457.00W	271	29.0	3498	215	8	4B	1000			4500

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZDV ARTCC, RCA APP CON, HON FSS

WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	RAP	24	RAP	34.75	Y	129
BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	PHP	24	PHP	28.52	Y	151

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
6V4 2813, RAP 3163
RA = 129.0
6V4 2813, PHP 2209
RA = 150.2



PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
APPROACH AND RUNWAY LIGHTING SYSTEM		RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW36			
RW18			
RW13 - LIRL (PCL), PAPI-2L		NPI-G	
RW31 - LIRL (PCL), PAPI-2L		NPI-G	

GLIDESLOPE ANGLE

ELEV RWY THRESHOLD

TCH

ELEV GS ANTENNA

DISTANCE FROM RWY

VGSI ANGLE

TCH

3.00

43.8

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD

ON CENTERLINE

X

X

FT FROM THRESHOLD

FT FROM CENTERLINE

DISPLACED THRESHOLD DISTANCE

662

CRITICAL TEMPERATURES

CRITICAL LOW

CRITICAL HIGH

ACT

APT ISA

CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

FINAL TYPE	LNAV
34:1	
2879 TREE (46-051177) 435939.2300N/1021444.2200W (20.27)	2882 TREE (46-050974) 435934.8200N/1021445.1100W (15.32)
2861 TREE (46-036491) 435941.8500N/1021449.0800W (15.17)	2882 TREE (46-036162) 435934.7500N/1021444.8000W (14.7)
2962 POLE (46-051207) 435910.9200N/1021424.0000W (12.85)	2860 TREE (46-051071) 435941.7800N/1021448.0400W (12.45)
2849 TREE (46-036154) 435943.7600N/1021451.1400W (10.33)	2872 TREE (46-036161) 435938.0800N/1021443.6700W (10.01)
2856 TREE (46-051241) 435942.2900N/1021447.6300W (8.9)	2860 TREE (46-051093) 435941.4200N/1021446.0000W (8.59)
2857 TREE (46-036277) 435940.7800N/1021448.1500W (7.51)	2872 TREE (46-036242) 435935.7700N/1021444.9700W (7.11)
2864 TREE (46-036540) 435938.6800N/1021444.5300W (4.58)	2870 TREE (46-036485) 435934.6300N/1021446.1600W (4.51)
2871 TREE (46-036510) 435936.3200N/1021442.6700W (3.78)	2873 TREE (46-051126) 435937.3300N/1021439.9000W (3.71)
2980 TANK (46-000578) 435903.0000N/1021417.0000W (3.51)	2863 TREE (46-036259) 435938.6400N/1021444.2200W (3.03)
2986 WATER_TOWER (46-036386) 435902.0900N/1021413.9300W (2.93)	2868 TREE (46-036408) 435936.6900N/1021443.4000W (2.67)
2867 TREE (46-051132) 435936.7900N/1021443.7300W (2.38)	2961 POLE (46-036364) 435911.3500N/1021417.0400W (2.2)
2867 TREE (46-036481) 435934.5700N/1021446.5200W (1.93)	2863 TREE (46-036405) 435938.1700N/1021444.1200W (1.88)
2844 TREE (46-051217) 435942.7800N/1021449.9900W (1.52)	2862 TREE (46-036478) 435938.3400N/1021443.9700W (1.01)
2862 TREE (46-050947) 435938.7600N/1021443.1000W (0.58)	2857 TREE (46-051051) 435939.9800N/1021444.6100W (0.45)



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2864 TREE (46-036375) 435937.7300N/1021443.0400W (0.32)						
<u>PENETRATIONS REMARKS:</u>						

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

<u>PENETRATIONS REMARKS:</u>

PART C: GENERAL REMARKS:

NO TAA PER ATC.

50 FT VEGETATION USED PER FPT.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

CIRCLING RWYS 18/36 NA DUE TO TURF RWYS WITH NO RAPT APPROVAL.

THE VDP IS NOT PUBLISHABLE DUE TO : REMOTE PRIMARY ALTIMETER.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

PART D: AIRSPACE

DOCKET #23-AGL-35

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	3.16
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	315.17
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	2900
DISTANCE FROM	THLD	TO 1500FT POINT	4.96
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.95
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	315.17
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	2900

THRESHOLD COORDINATES (IF STR-IN)	435949.53N/1021504.64W
ARP COORDINATES	435958.81N/1021515.27W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 13 DISTANCE 0.42 NM
FAF COORDINATES	435609.92N/1021002.11W
FIX NAME COORDINATES	

REMARKS

THLD DISPLACED 662FT, ACTUAL COORDINATES: 435944.90N/1021458.25W



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6V4	RNAV (GPS) RWY 31	ORIG	WALL	SD	2813	RNAV
PART E: PREPARED BY						
<u>NAME</u>			<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>	
ALLAN WILL (STEVEN BROWN)			AJV-A33	02/24/2026	AERONAUTICAL INFORMATION SPECIALIST	