

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23

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> KXWA	<u>PROCEDURE NAME</u> VOR RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> WILLISTON	<u>STATE</u> ND		
<u>AIRPORT ELEVATION</u> 2356	<u>TDZE</u> 2318	<u>SUPERSEDED</u> VOR RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 10/10/2019	<u>MAG VAR</u> 8E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> ISN	<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>
ISN VOR/DME		JUROX/ISN 12.00 DME					332.22	12.00	4300
BETKE/ISN 12.00 DME CW	IAF	JUROX/ISN 12.00 DME					12.00 DME ARC (ISN LR-322)		4300
FOGBA/ISN 12.00 DME CW	IAF	JUROX/ISN 12.00 DME					12.00 DME ARC (ISN LR-322)		4300
HASIP/ISN 12.00 DME CW	IAF	JUROX/ISN 12.00 DME					12.00 DME ARC (ISN LR-322)		4300
JUROX/ISN 12.00 DME	IF/IAF	HUTVI/ISN 5.26 DME					152.22	6.74 (ISN R-332)	3700

MISSED APPROACH

MAP:

RW14 OR AT ISN 1.03 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4300 THEN CLIMBING RIGHT TURN TO 4300 DIRECT ISN VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD NW JUROX, RT, 152.22 INBOUND, 4300 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 152.22 FAF: HUTVI/ISN 5.26 DME DIST FAF TO MAP: DIST FAF TO THLD: 4.23
4. MIN ALT: JUROX/ISN 12.00 DME 4300, HUTVI/ISN 5.26 DME 3700, HOXUX/ISN 3.00 DME 2800
8. MSA FROM: ISN VOR/DME 4300

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:



ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 125.00 INBOUND.
CHART FAS OBST: 2456 GENERAL_UTILITY (38-040214) 481607N/1034649W.
CHART VDP AT 2.18 DME
DISTANCE VDP TO THLD 1.15 NM.
CHART ISN R-255 AT BETKE.
CHART ISN R-211 AT FOGBA.
CHART ISN R-196 AT HASIP.
CHART CIRCLING ICON.
HUTVI TO RW14: 3.00/50.
CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 12.49 DEGREES.

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
S-14	2720	1	402	2720	1	402	2720	1 1/8	402	2720	1 1/8	402			
CIRCLING	2760	1	404	2820	1	464	2820	1 1/2	464	2920	2	564			

CHANGES - REASONS

1. UPDATED FAS OBSTACLE FROM "CHART FAS OBST: 2433 POLE 481612N/1034651W." TO "CHART FAS OBST: 2456 GENERAL_UTILITY (38-040214) 481607N/1034649W". - OBSTACLE UPDATED AND UPDATED DOCUMENTATION IAW 8260.19I 8-6-10C.
2. S-14 MDA/HAT CHANGED FROM "2700/384" TO "2720/402" - NEW CONTROLLING OBSTACLE.
3. AIRPORT ELEVATION CHANGED FROM "2353" TO "2356" - NEW AIRNAV DATA.
4. TDZE CHANGED FROM "2316" TO "2318" - NEW AIRNAV DATA.
5. CHART VDP NOTE CHANGED FROM "CHART VDP AT 2.12 DME DISTANCE VDP TO THLD 1.09 NM" TO "CHART VDP AT 2.18 DME DISTANCE VDP TO THLD 1.15 NM" - TDZE AND MDA INCREASE.
6. CIRCLING CAT A/B/C/D HAA CHANGED FROM "407/467/467/567" TO "404/464/464/564" - NEW AIRPORT ELEVATION.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☒ NBAA ☒ OTHER: ZMP, ZLC, APT MGR

FLIGHT CHECKED BY

PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021 SUBJECT:
GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION.

OFFICE

DATE

DEVELOPED BY

DONALD H. LANIER (ZACHARY KRUEGER)

Digitally signed by

DONALD H LANIER

Feb 25, 2022

Digitally signed by
DONALD H LANIER

Feb 25, 2022

OFFICE

AJV-A431

OFFICE

AJV-A430

DATE

12/21/2021

DATE

TITLE
MANAGER

APPROVED BY

LONNIE EVERHART

Digitally signed by

DONALD H LANIER

Feb 25, 2022



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

<u>AIRPORT ID</u> KXWA	<u>PROCEDURE NAME</u> VOR RWY 14	<u>AMDT NO.</u> ORIG-A	<u>CITY</u> WILLISTON	<u>STATE</u> ND	<u>AIRPORT ELEVATION</u> 2356	<u>FACILITY</u> ISN
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PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM ISN VOR/DME **TO** JUROX/ISN 12.00 DME

<u>RNP</u>	<u>DISTANCE</u> 12.00	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					<u>MIN ALT</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>	
1.AAO	482518.00N/1035548.00W		2700	164	98	4E	1000				AT600	4300
2.TERRAIN	482518.00N/1035548.00W		2500 (2500)								AS1500	4000

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL: ARC

FROM BETKE/ISN 12.00 DME CW **TO** JUROX/ISN 12.00 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					<u>MIN ALT</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>	
3.AAO	481512.00N/1040857.00W		2835	164	98	4E	1000				AT465	4300
4.TERRAIN	481512.00N/1040857.00W		2635 (2600)								AS1500	4100

COMPUTATIONS

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

SEGMENT REMARKS:

AIRSPACE ADJUSTMENT ADDED - WAS NOT PREVIOUSLY DOCUMENTED ON -9.



INITIAL: ARC

FROM
FOGBA/ISN 12.00 DME CW

TO
JUROX/ISN 12.00 DME

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
5.TOWER (38-000189)	480845.00N/1035322.00W		3152	500	50	5D	1000				AT148	4300
4.TERRAIN	481512.00N/1040857.00W		2635 (2600)								AS1500	4100

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL: ARC

FROM
HASIP/ISN 12.00 DME CW

TO
JUROX/ISN 12.00 DME

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
6.TOWER (38-000003)	480802.00N/1035138.00W		3217	250	50	4D	1000					4300
4.TERRAIN	481512.00N/1040857.00W		2635 (2600)								AS1500	4100

COMPUTATIONS

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

SEGMENT REMARKS:



INTERMEDIATE

FROM
JUROX/ISN 12.00 DME (IF/IAF)

TO
HUTVI/ISN 5.26 DME

RNP	DISTANCE 6.74	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
7.AAO	482512.00N/1035651.00W		2714	164	98	4E	500				SA-4 AT490	3700
2.TERRAIN	482518.00N/1035548.00W		2500 (2500)								AS1000	3500

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

FROM
HUTVI/ISN 5.26 DME

TO
HOXUX/ISN 3.00 DME

RNP	DISTANCE 2.26	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
8.AAO	481905.24N/1034752.07W		2550	50	20	2C	250					2800

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: STEPDOWN

FROM
HOXUX/ISN 3.00 DME

TO
RW14 OR AT ISN 1.03 DME

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
	1.97		RW14 OR AT ISN 1.03 DME	402								
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
9.GENERAL_UTILITY (38-040214)	481607.07N/1034649.32W	2456	20	10	1B	250					2720	

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

HOLD-IN-LIEU OF PT

FROM
JUROX

TO
P-5

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
		P-5										
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
10.AAO	482512.00N/1035654.00W	2720	164	98	4E	1000				AT580	4300	
11.TERRAIN	482512.00N/1035654.00W	2520 (2500)								AS1500	4000	

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



MISSED APPROACH

FROM
RW14 OR AT ISN 1.03 DME

TO
ISN VOR/DME

RNP	DISTANCE	PAT	MAP	HAT			HMAS 2450					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				4300
6.TOWER (38-000003)	480802.00N/1035138.00W		3217	250	50	4D	1000					4300
12.TERRAIN	481548.00N/1035239.00W		2437 (2400)								AS1500	3900

COMPUTATIONS

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

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											
9.GENERAL_UTILITY (38-040214)	481607.07N/1034649.32W	1.33	404	2456	20	10	1B	300			2760
CATEGORY B											
9.GENERAL_UTILITY (38-040214)	481607.07N/1034649.32W	1.89	464	2456	20	10	1B	300		HAA	2820
CATEGORY C											
9.GENERAL_UTILITY (38-040214)	481607.07N/1034649.32W	2.98	464	2456	20	10	1B	300		HAA	2820
CATEGORY D											
13.AAO	481727.63N/1035046.99W	3.90	564	2610	500	50	5D	300			2920

CIRCLING REMARKS:



MSA

CENTER
ISN VOR/DME

RADIUS
25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (38-000003)	480802.00N/1035138.00W	204	08.4	3217	250	50	4D	1000			4300

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KXWA	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KXWA	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> AWOS-3PT	<u>LOCATION</u> KSDY	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KSDY	<u>DISTANCE</u> 37.94	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 141

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
KXWA 2353
KSDY 1985.3
RA=140.58

<u>PRIMARY NAVAID</u> ISN VOR/DME	<u>MONITOR POINT</u> MOCC	<u>HRS OPERATION</u> 24	<u>CAT</u> 1
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW4 - MIRL (PCL), REIL (PCL), PAPI-2L		NPI-G	
RW14 - HIRL (PCL), REIL (PCL), PAPI-4L		NPI-G	
RW22 - MIRL (PCL), REIL (PCL), PAPI-2L		NPI-G	
RW32 - MALSR (PCL), HIRL (PCL), PAPI-4L		PIR-G	

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 50.0
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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>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:



"VISUAL PORTION OF FINAL" PENETRATIONS

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:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE SIDNEY ALTIMETER SETTING AND INCREASE ALL MDAS 160 FEET; INCREASE S-14 VISIBILITY CATS C AND D 1/2 SM AND CIRCLING CATS C AND D VISIBILITY 1/4 SM.

MIN ALTITUDE WHEN USING SIDNEY ALTIMETER SETTING: HOXUX/ISN 3.00 DME 2960.

VDP NA WHEN USING SIDNEY ALTIMETER SETTING.

COORDINATION WITH A4A, ALPA, AOPA, APA, HAI, NBAA, ZLC, ZMP, AND APT MGR SELECTIONS REQUESTED BY AWO AND FPT.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<div>AIRPORT ID KXWA</div>	<div>PROCEDURE NAME VOR RWY 14</div>	<div>AMDT NO. ORIG-A</div>	<div>CITY WILLISTON</div>	<div>STATE ND</div>	<div>AIRPORT ELEVATION 2356</div>	<div>FACILITY ISN</div>
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PART D: AIRSPACE

DOCKET # 17-AGL-3

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

DISTANCE FROM	FACILITY*	TO 1000FT POINT	5.03
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	2.50
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	160.22
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	2350
DISTANCE FROM	FACILITY*	TO 1500FT POINT	11.4
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	7.56
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	160.22
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	2500

THRESHOLD
COORDINATES
(IF STR-IN)

481610.41N/1034533.69W

ARP COORDINATES

481535.22N/1034502.00W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 14 DISTANCE 0.68 NM

FAF
COORDINATES

482009.05N/1034742.47W

FIX NAME
COORDINATES

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED

*WILLISTON VOR/DME: 481512.30N/1034502.40W

QUALITY
42
CHECKED

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

Electronic Version

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PART E: PREPARED BY

<u>NAME</u> DONALD H. LANIER (ZACHARY KRUEGER)	<u>OFFICE</u> AJV-A431	<u>DATE</u> 12/21/2021	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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