

**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> KIRS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 19	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> STURGIS	<u>STATE</u> MI		
<u>AIRPORT ELEVATION</u> 925	<u>TDZE</u> 915	<u>SUPERSEDED</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 03/25/2021	<u>MAG VAR</u> 6W	<u>EPOCH YEAR</u> 2025
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 29 DECEMBER 2022	<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>
NUPGE		WIREP		TF	FB	1.00	287.88	12.06	2500
WIREP	IAF	UKANE	NOPT	TF	FB	1.00	245.75	5.00	2500
RESGY	IAF	UKANE	NOPT	TF	FB	1.00	141.93	9.20	2500
UKANE	IF/IAF	ZUGDA		TF	FB	1.00	185.69	6.13	2500
ZUGDA	FAF	RW19	MAP	TF	FO	0.30	185.69	4.87	
RW19	MAP	1229 MSL		CA			185.69		
1229 MSL		JETKI		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW19

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT JETKI AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD N UKANE, RT, 185.69 INBOUND, 2500 FT. IN LIEU OF PT (IAF), MAX 6000.					
3. FAC: 185.69	FAF: ZUGDA	DIST FAF TO MAP: 4.87	DIST FAF TO THLD: 4.87		
4. MIN ALT: UKANE 2500, ZUGDA 2500					
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	GS ANT:	
6. MIN GP INCPT: 2500	GP ALT AT PFAF : ZUGDA 2500	OM:	MM:	IM:	
7. GP ANGLE: 3.00	34:1: IS NOT CLEAR	20:1: IS CLEAR	TCH: 40.0		
8. MSA FROM: RW19 2500					

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: CIRCLING RWY 6 NA AT NIGHT.
CHART NOTE: RWY 19 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT RESGY ON V285 NORTHBOUND AND V100 WESTBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT NUPGE ON V10 EASTBOUND.
CHART NOTE: CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE THREE RIVERS ALTIMETER SETTING AND INCREASE LPV DA TO 1276 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE LNAVNAV DA TO 1270 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CAT C/D 1/4 SM, AND CIRCLING VISIBILITY CAT C/D 1/4 SM.

ADDITIONAL FLIGHT DATA:

HOLD S, RT, 005.69 INBOUND.
FAS OBST: 1149 AAO 415300N/0852916W.
CHART VDP AT 1.45 NM TO RW19.
WAAS CHANNEL # 90230
REFERENCE PATH ID: W19A
LTP HAE: 243.7 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4, 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
LPV DA	1235	7/8	320	1235	7/8	320	1235	7/8	320	1235	7/8	320			
LNAV/VNAV DA	1229	7/8	314	1229	7/8	314	1229	7/8	314	1229	7/8	314			
LNAV MDA	1400	1	485	1400	1	485	1400	1 3/8	485	1400	1 3/8	485		QUALITY	
CIRCLING	1440	1	515	1440	1	515	1620	2	695	1620	2 1/4	695		8	CHECKED

CHANGES - REASONS

1. UPDATED KIRS MAGVAR FROM 4/W1995 TO 6W/2025 - PER FPT REQUEST.
2. CHANGED PROCEDURE NAME FROM RNAV (GPS) RWY 18 TO RNAV (GPS) RWY 19 - KIRS RUNWAY RENUMBER FOR MAGVAR UPDATE 4/W1995 TO 6W/2025.
3. ADDED "20:1 IS CLEAR" TO PROFILE LINE 7 - NEW SURVEY; REQUIRED PER 8260.19I 8-6-7 PARA G.(3).
4. REMOVED CHART NOTE "DME/DME RNP-0.3 NA." - REPLACED WITH PBN REQUIREMENTS NOTE: "RNP APCH - GPS" PER 8260.19I PARA 8-6-8B.(2).
5. CHANGED PROFILE NOTE FROM "VGSI AND RNAV GLIDEPATH NOT COINCIDENT" TO "VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - PER 8260.19I PARA M.(1).
6. REMOVED CHART NOTE "WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 18 PROCEDURE NA AT NIGHT" - 20:1 IS CLEAR AND IS NO LONGER REQUIRED.
7. ADDITIONAL FLIGHT DATA: UPDATED MISSED APPROACH HOLDING FROM "HOLD S, RT, 003.69 INBOUND" TO "005.69 INBOUND" - UPDATED KIRS MAGVAR FROM 4/W1995 TO 6W/2025.
8. PROFILE LINE 2 HOLD-IN-LIEU: CHANGED FROM "HOLD N UKANE, RT, 183.69 INBOUND" TO "186.69 INBOUND" - UPDATED KIRS MAGVAR FROM 4/W1995 TO 6W/2025.
9. ADDED 2.00 DEGREES TO ALL COURSES - UPDATED KIRS MAGVAR FROM 4/W1995 TO 6W/2025.
10. TERMINAL ROUTE: RAISED INTERMEDIATE RNP VALUE FROM 0.50 TO 1.00 - PER 8260.58B TABLE 1-2-1.
11. REMOVED "CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA" - REPLACED WITH "CHART NOTE: RWY 19 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - 20:1 IS CLEAR AND PER 8260.19I PARA 8-6-11.K.(3).
12. INCORPORATED P-NOTAM #5/4356: LPV DA 1235, LNAV/VNAV DA 1229, LNAV HAT 485 ALL CATS. CHART TDZE 915. DELETE THRE 308. - PER 8260.19I PARA 8-3-4.C.(2).
13. INCORPORATED P-NOTAM #0/5564: CIRCLING CAT A/B HAA 515, CAT C MDA 1620/HAA 695, VIS CAT C 2, CAT D HAA 695. AIRPORT ELEVATION 925. DELETE NOTE: CIRCLING TO RWY 6, 24 NA AT NIGHT - PER 8260.19I PARA 8-3-4.C.(2).
14. REMOVED NOTE "VISIBILITY REDUCTION BY HELICOPTERS NA" - REPLACED WITH "CHART NOTE: RWY 19 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED" 20:1 AND 34:1 PENETRATIONS PER 8260.19I PARA K.(3).
15. TERMINAL ROUTES: LOWERED NUPGE TO WIREP RNP VALUE FROM 2.00 TO 1.00 - PER 8260.58B TABLE 1-2-1.
16. TERMINAL ROUTES: RAISED UKANE TO ZUGDA RNP VALUE FROM 0.50 TO 1.00 - PER 8260.58B TABLE 1-2-1.
17. FAS DATA: CRC REMAINDER CHANGED FROM B3DFCC75 TO 001D23F0 - KIRS RUNWAY RENUMBER FOR MAGVAR UPDATE 4/W1995 TO 6W/2025.
18. PROFILE LINE 2: ADDED "MAX 6000" TO HOLD-IN-LIEU INSTRUCTIONS - PER 8260.19I PARA 8-6-7.B.(2)(B).
19. ADDED CHART NOTE "CIRCLING RWY 6 NA AT NIGHT" - NO SURVEY FOR RWY 6; ASSUMED 20:1/34:1 OBSTACLES.
20. ADDITIONAL FLIGHT DATA: ADDED NOTE "CHART VDP AT 1.45 NM TO RWY 19" - 20:1 IS CLEAR AND PER 8260.19I PARA 8-6-10.M.
21. CHANGED CHART NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE THREE RIVERS ALTIMETER SETTING AND INCREASE ALL DA/MDA 40 FEET; INCREASE LPV VISIBILITY ALL CATS AND LNAV CAT C AND D 1/8 MILE, INCREASE LNAV/VNAV VIS ALL CATS 1/4 MILE" TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE THREE RIVERS ALTIMETER SETTING AND INCREASE LPV DA TO 1276 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE LNAV/VNAV DA TO 1270 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CAT C/D 1/4 SM, AND CIRCLING VISIBILITY CAT C/D 1/4 SM" - REMOTE ALTIMETER ADJUSTMENT RAISED FROM 40 TO 60 FEET AND PER 8260.3E SECTION 3-3, NOTE DOCUMENTED PER 8260.19I PARA 8-6-9.(E)(4).
22. LOWERED LPV VIS ALL CATS FROM 1 1/8 TO 7/8 - 8260.3E TABLE 3-3-1 APPLIED.
23. LOWERED LNAV/VNAV VIS ALL CATS FROM 1 TO 7/8 - 8260.3E TABLE 3-3-1 APPLIED.
24. LOWERED CIRCLING CAT A/B VIS FROM 1 1/8 TO 1 - 8260.3E TABLE 3-3-7 APPLIED.
25. RAISED MISSED APPROACH CA LEG ALTITUDE FROM 1222 TO 1229 FT - PER 8260.58B PARA 3-5.2.B.

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZAU, SBN ATCT, AZO ATCT, AMGR.

FLIGHT CHECKED BY

GLEN B FREEMAN

*Digitally signed by***CASIMIR L TABAKA**

Sep 28, 2022

OFFICE

FPO

DATE

09/23/2022

DEVELOPED BY

VICTOR BOONE

*Digitally signed by***VICTOR C BOONE****OFFICE**

AJV-A432

DATE

07/14/2022

APPROVED BY

JOHNNIE BAKER

Aug 22, 2022

*Digitally signed by***CASIMIR L TABAKA**

Aug 24, 2022

OFFICE

AJV-A430

DATE

12/29/2022

TITLE

MANAGER

QUALITY
8
CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KIRS
RUNWAY	RW19
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W19A
LTP/FTP LATITUDE	414912.8100N
LTP/FTP LONGITUDE	0852627.3395W
LTP/FTP ELLIPSOIDAL HEIGHT	+02437
FPAP LATITUDE	414743.6700N
FPAP LONGITUDE	0852626.7000W
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	1168
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	001D23F0

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02768
FPAP ORTHOMETRIC HEIGHT	+02768

