

**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> KOTG	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 29	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> WORTHINGTON	<u>STATE</u> MN	
<u>AIRPORT ELEVATION</u> 1574	<u>TDZE</u> 1570	<u>SUPERSEDED</u> RNAV (GPS) RWY 29	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 12/30/2021	<u>MAG VAR</u> 2E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 27 JANUARY 2022	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2015

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
ISLER	IAF	CUKMO	NOPT	TF	FB	1.00	224.49	6.70	3300
HAYNS	IAF	CUKMO	NOPT	TF	FB	1.00	356.71	8.52	3300
CUKMO	IF/IAF	JENTU		TF	FB	1.00	292.89	6.18	3300
JENTU	FAF	ZUGER/1.73 NM TO RW29		TF	FB	0.30	292.81	3.58	
ZUGER/1.73 NM TO RW29		RW29	MAP	TF	FO	0.30	292.81	1.73	
RW29	MAP	1770 MSL		CA			292.81		
1770 MSL		NEYIL		DF	FO	1.00			3300

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW29

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 DIRECT NEYIL AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



CHANGES - REASONS

1. INCORPORATED CHANGES FROM PREVIOUS P-NOTAMS INTO AMENDMENT 1.
2. REMOVED FEEDER FROM OTG VOR/DME - OTG VOR MON.
3. TERMINAL ROUTES UPDATED COURSE/DISTANCE-FROM/TO; CUKMO TO JENTU FROM 292.88/6.21 TO 292.89/6.18, JENTU TO ZUGER FROM 292.82/3.58 TO 292.81/3.58, AND CA LEG COURSE CHANGED FROM 292.82 TO 292.81 - OTG VOR MON/FAF JENTU MOVED TO ALIGN WITH ILS OR LOC RWY 29 FAF REPLACEMENT FROM WONDO LOM.
4. TERMINAL ROUTE STEPDOWN FIX ZUGER DIST TO RW29 CHANGED FROM 1.70 NM TO 1.73 NM - ALIGNED WITH NEW FAF JENTU PLACEMENT.
5. CA LEG CHANGED FROM 1766 TO 1770 - LOWEST DA/LPV.
6. PROFILE LINE 2 HOLDING CHANGED FROM 292.88 TO 292.89 - ALIGN WITH NEW FAF PLACEMENT/TARGETS EVALUATION RESULTS.
7. PROFILE LINE 3 FAC CHANGED FROM 292.82 TO 292.81, DIST FAF TO MAP/DIST FAF TO THLD CHANGED FROM 5.28 TO 5.31 - FAF MOVED TO ALIGN WITH ILS OR LOC RWY 29.
8. PROFILE LINE 4 MIN ALT DIST AT ZUGER CHANGED FROM 1.70 TO 1.73, ASTERISK REMOVED FROM STEPDOWN ALTITUDE OF 2160 - STEPDOWN FIX MOVED TO MAINTAIN GLIDE PATH/ASTERISK NO LONGER REQUIRED.
9. ADDED DIST TO THLD FROM 200 HAT: 0.51 TO PROFILE LINE 5 - IAW 8260.19I 8-6-7E(3).
10. ADDED 20:1 IS CLEAR TO PROFILE LINE 7 - NO 20:1 PENETRATIONS IN OBSTACLE EVALUATION/IAW 8260.19I 8-6-7G(3)(A).
11. TCH CHANGED FROM 53.1 TO 42.5 ON PROFILE LINE 7 - MATCHED WITH NEW DESIGN TCH FROM AIRNAV FOR ILS OR LOC RWY 29.
12. MOVED BACK-UP ALTIMETER NOTES TO BACK OF -9 - IAW 8260.19I 8-6-9F(3).
13. REMOVED CHART NOTE DME/DME RNP-0.3 NA FROM NOTES AND ADDED RNP APCH - GPS TO PBN REQUIREMENTS NOTE - IAW 8260.19I 8-6-8B(2).
14. REMOVED UNCOMPENSATED BARO-VNAV SYSTEMS NOTE FAHRENHEIT AND CHANGED -18 DEGREE C TO -23 DEGREE C - FAHRENHEIT NO LONGER USED/UPDATED 5 YEAR ACT.
15. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON OTG VOR/DME AIRWAY RADIALS 056 CW 195 AND ADDED PROCEDURE NA FOR ARRIVALS AT ISLER ON T348 EASTBOUND - OTG VOR MON/REMOVED FROM PROCEDURE/TURN GREATER THAN 90 DEGREES.
16. REMOVED CHART PROFILE NOTE VGSI AND RNAV GLIDEPATH NOT COINCIDENT - FAF AND TCH UPDATED AND ALIGNED WITH DESIGN TCH FOR ILS OR LOC RWY 29.
17. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM - IAW 8260.3E TABLE 3-3-1.
18. CHART FAS OBST UPDATED WITH OBSTACLE ID NUMBER (27-000747) AND LAT/LONG FROM 433908N/0953226W TO 433908N/0953227W - OBSTACLE SURVEY UPDATED 02/10/2021/IAW 8260.19I 8-6-10C.
19. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA - IAW 8260.19I 8-6-10S.
20. LNAV/VNAV DA/HAT CHANGED FROM 1992/422 TO 1867/297 AND ALL CATS VISIBILITY CHANGED FROM 1 SM TO 1/2 SM - NEW OBSTACLE EVALUATION RESULTS/PARALLEL TAXIWAY N/A-ENTRANCE-EXIT PERMITS NO BACK TAXI/VISCHECK UPDATED IAW 8260.3E TABLE 3-3-1.
21. FPAP LAT/LONG UPDATED FROM 433942.0200N/0953550.9400W TO 433942.0090N/0953550.9430W - TARGETS EVALUATION RESULTS.
22. TCH UPDATED IN FAS DATA FROM 53.1 TO 42.5 - MATCHED WITH DESIGN TCH OBTAINED FOR ILS OR LOC RWY 29.
23. CRC REMAINDER UPDATED FROM D30396D2 TO C5F1BD44 - UPDATED FPAP AND TCH.
24. MISSED APPROACH HOLDING INBOUND CHANGED FROM 112.55 TO 112.56 IN ADDITIONAL FLIGHT DATA - UPDATED INBOUND COURSE TO MATCH RNAV GPS RWY 11 INBOUND COURSE.

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA OTHER: ZMP, AMGR

FLIGHT CHECKED BY

Digitally signed by
DONALD H LANIER
Dec 20, 2021

OFFICE

FPO

DATE

12/03/2021

DEVELOPED BY

RICHARD CHRISTENSEN

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RICHARD E CHRISTENSE
Oct 20, 2021

OFFICE

AJV-A431

DATE

09/24/2021

APPROVED BY

LONNIE EVERHART

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DONALD H LANIER
Dec 20, 2021

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DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KOTG
RUNWAY	RW29
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W29A
LTP/FTP LATITUDE	433904.7440N
LTP/FTP LONGITUDE	0953359.4550W
LTP/FTP ELLIPSOIDAL HEIGHT	+04508
FPAP LATITUDE	433942.0090N
FPAP LONGITUDE	0953550.9430W
THRESHOLD CROSSING HEIGHT (TCH)	00042.5
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1072
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	C5F1BD44

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+04774
FPAP ORTHOMETRIC HEIGHT	+04774

