U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

VOR STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.23

Bearings, headings, courses, 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 in feet RVR.

TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE

MISSED APPROACH

MAP: OTG VOR/DME

CLIMB TO 2700 THEN CLIMBING LEFT TURN TO 3400 DIRECT TO OTG VOR/DME AND HOLD.

ADDITIONAL FLIGHT DATA:

HOLD E, RT, 262.00 INBOUND.
CHART FAS OBST: 1759 TREE 434002N/0953846W
ECBOF TO OTG VOR/DME: 2.92/42.
FAC CROSSES RWY C/L EXTENDED 3712 FROM THLD.

1. PT L SIDE OF COURSE 314.00 OUTBOUND 3400 FT WITHIN 10 MILES OF OTG VOR/DME (IAF)
2.
3. FAC 134.00 FAF DIST FAF TO MAP THLD
4. MIN. ALT ECBOF/OTG 3.00 DME 2360
8. MSA FROM: OTG VOR/DME 360-180 3200, 180-360 3900

MAG VAR: 8E EPOCH YEAR:1965

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT ALTERNATE: N A STANDARD @

CATEGORY =====>	A			B			C			D			E		
	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA
S-11	2360	1	786	2360	1 1/4	786	2360	2 1/2	786	2360	2 1/2	786			
CIRCLING	2360	1	786	2360	1 1/4	786	2360	2 1/2	786	2360	2 1/2	786			
ECBOF FIX MINIMUMS (DME REQUIRED)															
S-11	2020	1	446	2020	1	446	2020	1 3/8	446	2020	1 3/8	446			
CIRCLING	2100	1	526	2100	1	526	2100	1 1/2	526	2140	2	566			

NOTES:

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE JACKSON ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, CIRCLING CAT A AND D VISIBILITY 1/4 MILE, INCREASE ECBOF FIX MINIMUMS S-11 CAT C/D VISIBILITY 1/8 MILE AND CIRCLING CAT C VISIBILITY 1/4 MILE. @ CAT C, D 800-2 1/2

CHART NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 11 PROCEDURE NA AT NIGHT.
(SEE FORM 8260-10)

QUALITY 2 CHECKED

CITY AND STATE	ELEVATION: 1574 THRE: 1574	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP VOR OR GPS RWY 11
WORTHINGTON, MN	AIRPORT NAME: WORTHINGTON MUNI	OTG	VOR RWY 11, AMDT 3	AMDT 2
				DATE 06/08/2006

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] NO		ROUTINE

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X] ZMP, KOTG AMGR

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:

DEVELOPED BY		
NAME: NEIL R. SIMPANEN	FIFO AJV-353	DATE: 07/11/2012

APPROVED BY		
NAME: LARRY H STROUT MANAGER	FIFO AJV-353	DATE:

CHANGES:

1.DELETED FEEDER FROM BILOO.
2. RAISED PT ENTRY ALTITUDE FROM 3300 TO 3400.
3.RAISED MA HOLDING ALTITUDE FROM 3300 TO 3400.
4.ADDED LVL SFC AND TERRAIN OBST(S) MAP DOCUMENTATION.
5.ADDED KMJQ TO RASS SOURCE AND NOTES.
6. DELETED "OR GPS" FROM SIAP NAME.
7. REVISED RWY CENTERLINE AND FAC CROSSING POINT FROM 4928' TO 3712'.
8. NAMED CNF FIX ECBOF AS A REGULAR FIX AND REPLACED DME FIX MINIMUMS WITH ECBOF FIX MINIMUMS.
9. ADDED NOTE "VISIBILITY REDUCTION BY HELICOPTERS NA".
10.INCREASED S-11 MAD/CIRCLING MDA FROM 2260 TO 2360, INCREASED VISIBILITY MINIMUMS FOR CAT B/C/D.
11.CHANGED STEPDOWN FIX MINIMUMS S-11 CAT C/D FROM 1 1/4/ TO 1 3/8.
12.ADDED RESTRICTION TO NIGHT OPERATIONS REQUIRING VGSI.

REASONS:

1. NO LONGER REQUIRED BY CEN FPT.
2. REVISED OBST ROC CALCULATION.
3. RESULT OF PT ALT INCREASE.
4. REQUIRED BY CRITERIA.
5. REQUIRED BY CURRENT CRITERIA.
6. STAND ALONE RNAV (GPS) PROCEDURE CREATED.
7.RWY EXTENTION HAPPENED SUBSEQUENT TO AMDT 2.
8. CURRENT REQUIREMENT TO ELIMINATE CNF (S).
9/12. 20:1 PENETRATIONS.
10. RE-EVALUATION OF FINAL SEGMENT, VISIBILITY INCREASE IAW 8260.3, CHG 20.
11.IAW 8260.3, CHG 20.

QUALITY 2 CHECKED

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NOTES, (CONT.):
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT.

QUALITY 2 CHECKED

CITY AND STATE	ELEVATION: 1574 THRE: 1574	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP: VOR OR GPS RWY 11
WORTHINGTON, MN	AIRPORT NAME: WORTHINGTON MUNI	OTG	VOR RWY 11, AMDT 3	AMDT: 2
				DATED: 06/08/2006

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

QUALITY 2 CHECKED

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FINAL: PT	10 NM	ECBOF/OTG 3.00	1. AAO	434203.62N/0954137.46W	1930 (2C)	300	DG52 RA78	2360
		DME						
FINAL: STEPDOWN	ECBOF/OTG 3.00	OTG VOR/DME	2. TREE	434002.09N/0953845.55W	1759 (2C)	250		2020
	DME							
2. PROCEDURE TURN	OTG VOR/DME	10 NM	3. TOWER (27-000001)	433748.00N/0954043.00W	2307 (4D)	1000		3400
			4. TERRAIN	434706.00N/0955157.00W	1834 (1800)		AS1500	3300
3. MISSED APPROACH — MAP:	OTG VOR/DME	OTG VOR/DME				ASC		3400
			5. WNDML (27-002837)	433706.73N/0952531.82W	1926 (4D)	1000		3000
ELEV:	1700		6. TERRAIN	433412.00N/0953321.00W	1608 (1600)		AS1500	3100

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL							
CATEGORY A	1.3 NM	350	786 / 526	7. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300	SI	2360 / 2100
CATEGORY B	1.5 NM	450	786 / 526	7. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300	SI	2360 / 2100
CATEGORY C	1.7 NM	450	786 / 526	7. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300	SI	2360 / 2100
CATEGORY D	2.3 NM	550	786 / 566	7. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300	SI / HAA	2360 / 2140
CATEGORY E	4.5 NM	550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: **OTG VOR/DME**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-180	TWR (19-000594)	187/ 15.1	2107 (2C)	3200					
180-360	TWR (27-001466)	306/ 21.9	2828 (5D)	3900					

CITY AND STATE	ELEVATION: 1574 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
WORTHINGTON, MN	WORTHINGTON MUNI	OTG	VOR RWY 11, AMDT 3	AGL

QUALITY CHECKED

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
ZMP ARTCC PNM FSS		N W S	OTHER: AWOS-3	SOURCE: KOTG / KMJQ
		F A A		DISTANCE: 0 / 25.82
SATISFACTORY ON:		A / C		HOURS REMOTE OPERATION: 24 / BACKUP
X V H F X U H F H F	LOCATION:			ADJUSTMENT: 0 / 78

4. MONITOR STATUS		
PRIMARY NAVAID:	OTG VOR/DME	
MONITOR POINT:	MOCC	
HRS OPTN:	CAT 1	24
	CAT 3	

5. APPROACH & RUNWAY LIGHTING	
	ALS
	(S) SALS
X	MALSR 29 (PCL)
X	HIRL 11 (PCL), 29 (PCL)
X	MIRL 18 (PCL), 36 (PCL)
X	REIL 11 (PCL), 18 (PCL), 36 (PCL)
	TDZ
	C/LINE
X	OTHER (SPECIFY) PAPI-4L 11 (PCL), 18 (PCL), 36 (PCL), 29 (PCL)

6. RUNWAY MARKINGS	
BASIC	
ALL WEATHER	PIR-G 29
INSTRUMENT	NPI-G 11, 18, 36

7. RUNWAY VISUAL RANGE	
APPROACH	
MIDFIELD	
ROLL OUT	

8. GLIDE PATH		
GP ANGLE:		ELEV RWY THRESHOLD:
DISTANCE FROM RWY:		ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

9. FINAL APPROACH COURSE AIMING			
		RUNWAY THRESHOLD 3712	FT. FROM THRESHOLD
	X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: **NONE**

PART D - PREPARED BY:	DATE:
NEIL R. SIMPANEN	07/11/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

VDP NOT ESTABLISHED - OBSTACLES PENETRATE 20:1 SURFACE.

ORDER 826.3, VOL 1, "VISUAL PORTION OF FINAL" PENETRATIONS:

PARA 251, 20:1 PENETRATION:
KOTGT0048 1587 RD (N) 433926.91N/0953512.70W 8.03'
KOTGT0057 1576 GRD 433931.66N/0953507.90W 1.94'
KOTGT0141 1586 RD (N) 433926.91N/0953514.14W 1.17'
KOTGT0001 1575 GRD 433931.65N/0953530.17W 1.17'

PARA 251, 34:1 PENETRATION:
KOTGT0048 1587 RD (N) 433926.41N/0953512.70W 10.28'
KOTGT0141 1586 RD (N) 433926.91N/0953514.14W 5.83'
KOTGT0001 1619 TREE 433929.91N/0953530.17W 3.63'
KOTGT0057 1576 GRD 433931.66N/0953507.90W 2.17'
KOTGT0003 1575 GRD 433931.65N/0953507.84W 1.30'

NO ADDITIONAL AIRSPACE REQUIRED.

RASS PRESSURE PATTERNS SAME
KOTG 1574 KMJQ 1447
RA = 77.20

VGSI DATA: 3.00/42

VEGETATION HEIGHT USED: 100'

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

QUALITY 2 CHECKED

Federal Aviation Administration

Memorandum

Date:

To: Dick Powell Manager, National Flight Data Center, AJV-21

From: Larry Strout, Manager, Terminal Procedures & Charting Services, Central Team, AJV-353

Subject: **ACTION:** Magnetic Variation Change

The Magnetic Variation (MV) data for the airport(s) and/or facility(s) listed under the 'Airport/Facility" column will be revised effective concurrent with the publication of the procedure(s) listed below.

ILS OR LOC RWY 29, AMDT 1
NDB RWY 29, AMDT 1
RNAV (GPS) RWY 11, ORIG
RNAV (GPS) RWY 18, ORIG
RNAV (GPS) RWY 29, ORIG
RNAV (GPS) RWY 36, ORIG
TAKEOFF MINIMUMS AND OBSTACLE DP, AMDT 3
VOR RWY 11, AMDT 3
VOR RWY 18, AMDT 10
VOR RWY 36, AMDT 6

Estimated Chart Date: 11/15/2012

Runway Numbers are affected with the airport rotation; 17/35 change to 18/36, 11/29 will not be changed.

Please publish these changes in the National Flight Data Digest.

MINNESOTA

Location	Name	Airport /Facility	Identifier	Assigned Magnetic Variation Value	Epoch Year
Worthington	Worthington Muni	Airport	KOTG / OTG	Old 7° East New 2° East	2015
Worthington		ILS	OTG	Old 7° East New 2° East	2015
Worthington	WONDO	NDB/C (NDB/LOM)	OTGOT	Old 7° East New 2° East	2015

If you have any questions please notify Larry H. Strout, larry.h.strout@faa.gov (301) 427-4750

cc: FTW-FPT, AVJ-3rf
AJV-353; LStrout:sbj::x7537:05/22/2012 :U:\AVN100\100Public\MAGVAR\MAGVAR Letters 2012\MV Change Request for Worthington, MN (KOTG) 5-22-12
Requestor:GNowak, AJW-3762:CTerrell], Evaluated By:LFortier
OTGOT (WONDO) NDB/C

CONCURRENCES	
ROUTING SYMBOL	AJV-34 SBaker
INITIALS/SIG	
DATE	
ROUTING SYMBOL	AJV-353 JOlson
INITIALS/SIG	
DATE	
ROUTING SYMBOL	AJV-353 LStrout
INITIALS/SIG	
DATE	
ROUTING SYMBOL	AJV-341 JAlfonso
INITIALS/SIG	
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