Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 05/21/2012	Task #: 2012052129647603001	Request #: 20120521296476
Procedure: ILS OR LOC RWY 29 AMDT 1		Airport ID: KOTG	Airport: WORTHINGTON MUNI		Reimbursable #:
City: WORTHINGTON	ST: MN	GPS #:		Estimated Chart Date: 01/10/2013	FICO #:
Fac ID: OTG	Fac. Type: ILS	Specialist: NEIL SIMPANEN			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	05/21/2012	08/28/2012	JILL OLSON	
QA:	08/28/2012	09/11/2012	STEVEN SZUKALA	
Liaison:	09/11/2012		Spurlin	MAGVAR

MAG VAR

Procedure Comments:

Remark Type: INFORMATION

pkg 7 of 10

WORTHINGTON, MN WORTHINGTON MUNI (KOTG) ILS OR LOC RWY 29, AMDT 1 ENROUTE-NO FC: 11.27.12 PUB: 1.10.13

ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): CUKMO-INT, REV 1; LAVRE-INT, REV 1; WONDD (OT) LOM-INT, REV 2; WORTHINGTON (OTG) VDME, REV 9.

CONTACT: JILL OLSON/STEVE BARNETT -AVJ-353 LEADS, 405.954.4014 / 405.954.9307.

LOC I-OTG	APP CRS	Rwy ldg	5500
111.7	293°	THRE	1566
		Apt Elev	1574

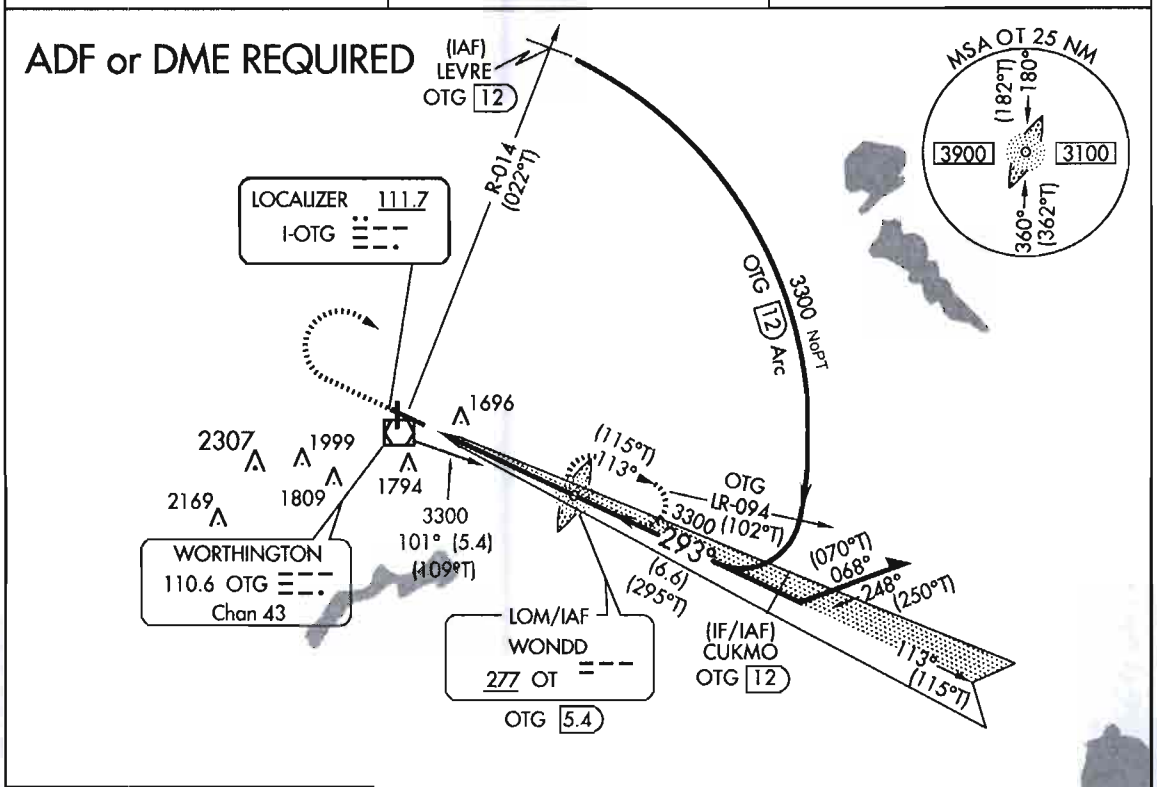
ILS or LOC RWY 29
WORTHINGTON MUNI (OTG)

When local altimeter setting not received, use Jackson altimeter setting and increase all DA 78 feet, all MDA 80 feet, increase S-LOC 29 Cat C and D and Circling Cat C visibility 1/4 mile. For inoperative MALSR, when using Jackson altimter setting, increase S-ILS 29 all Cats visibility to 7/8 mile. Autopilot coupled approach NA below 1770.

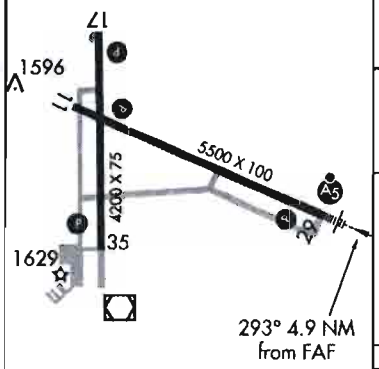
MALSR

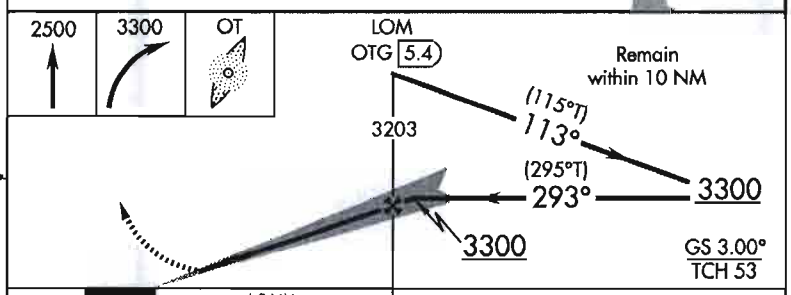
MISSED APPROACH: Climb to 2500 then climbing right turn to 3300 direct WONDD LOM/OTG 5.43 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.6	132.05 317.4	122.8 (CTAF)



ELEV 1574 THRE 1566





MIRL Rwy 17-35
HIRL Rwy 11-29
REIL Rwys 11, 17, and 35

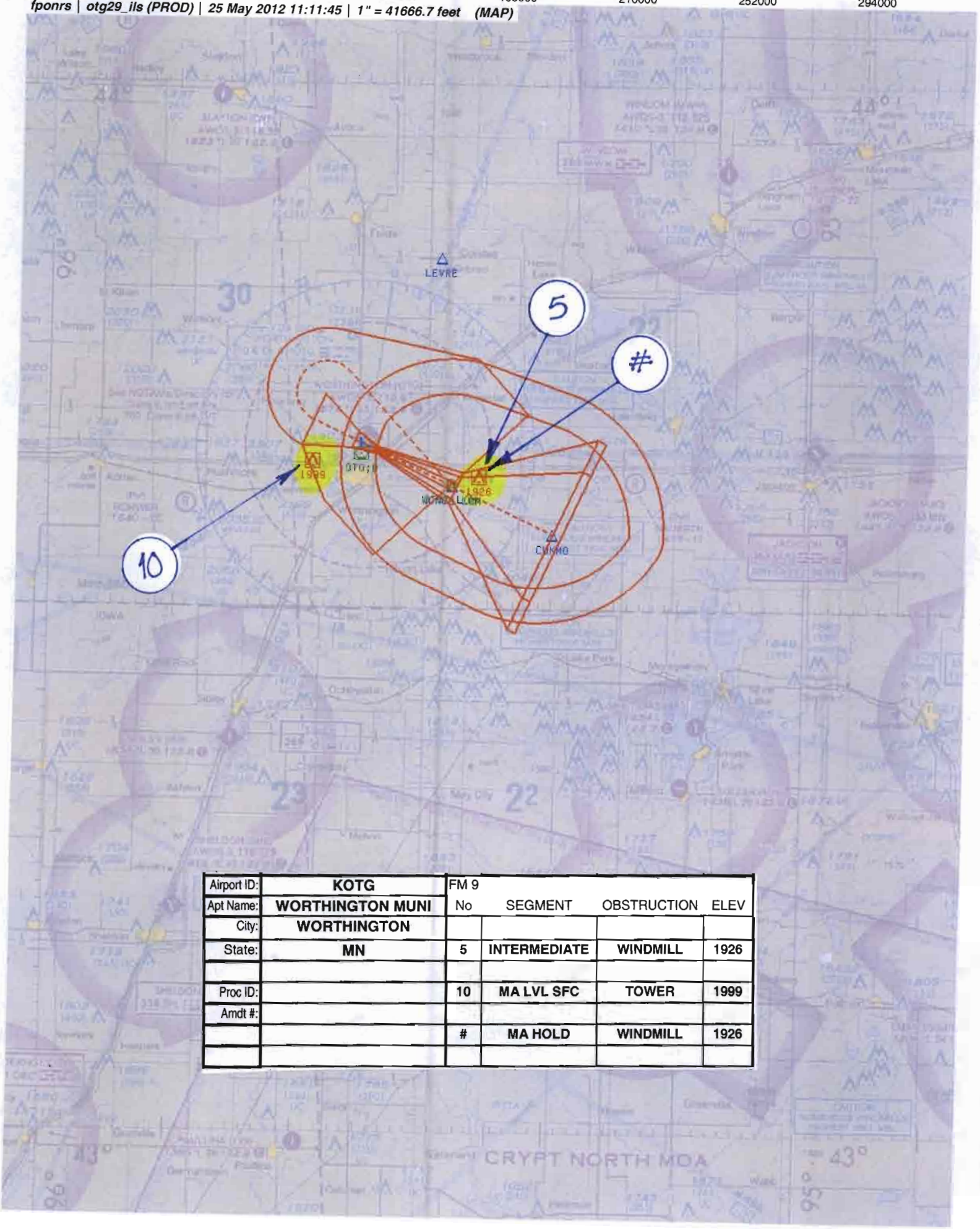
FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

CATEGORY	A	B	C	D
S-ILS 29	1766-½ 200 (200-½)			
S-LOC 29	2000-½ 434 (500-½)		2000-¾ 434 (500-¾)	
CIRCLING	2100-1 526 (600-1)		2100-1½ 526 (600-1½)	2140-2 566 (600-2)

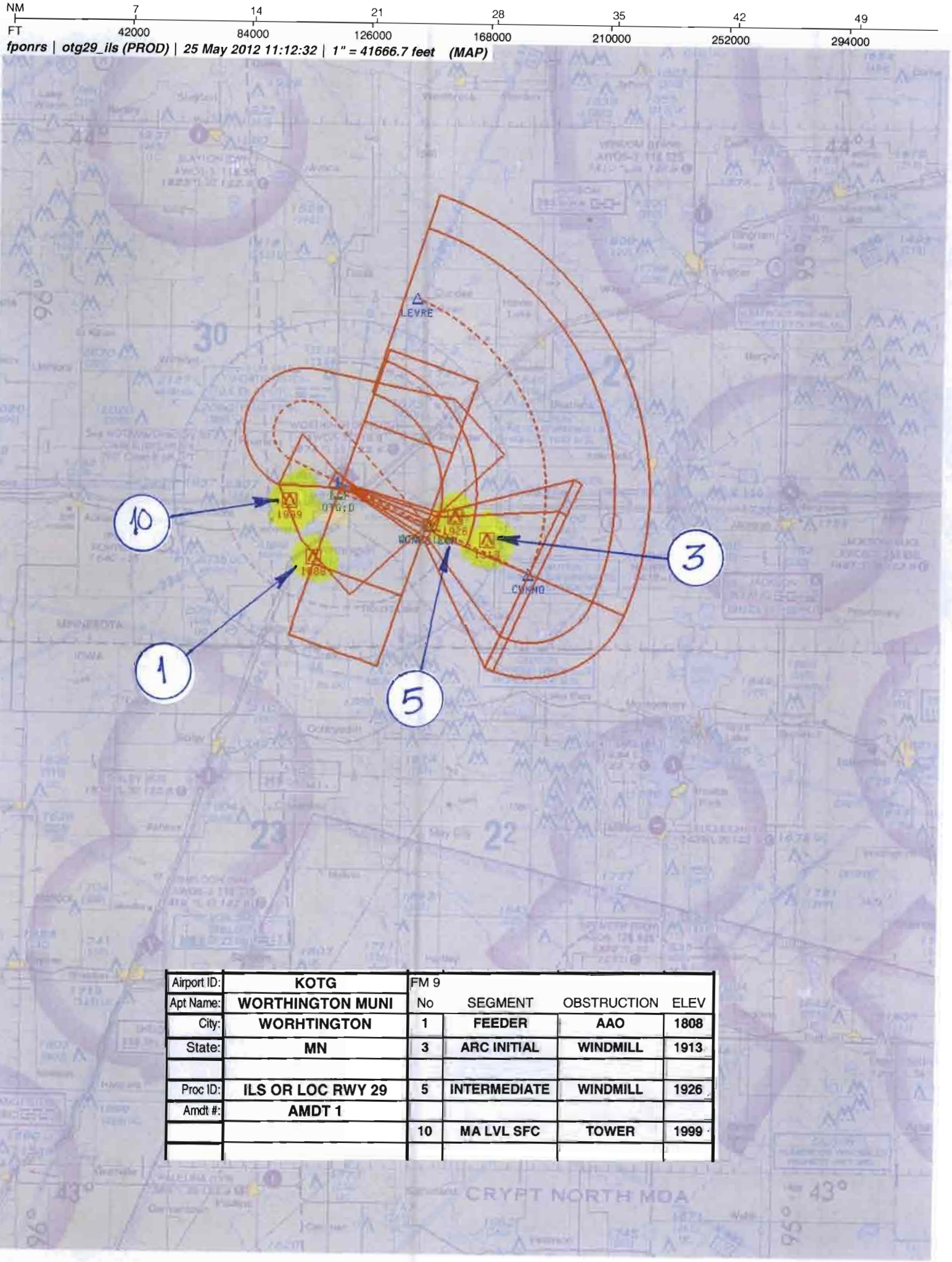
NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

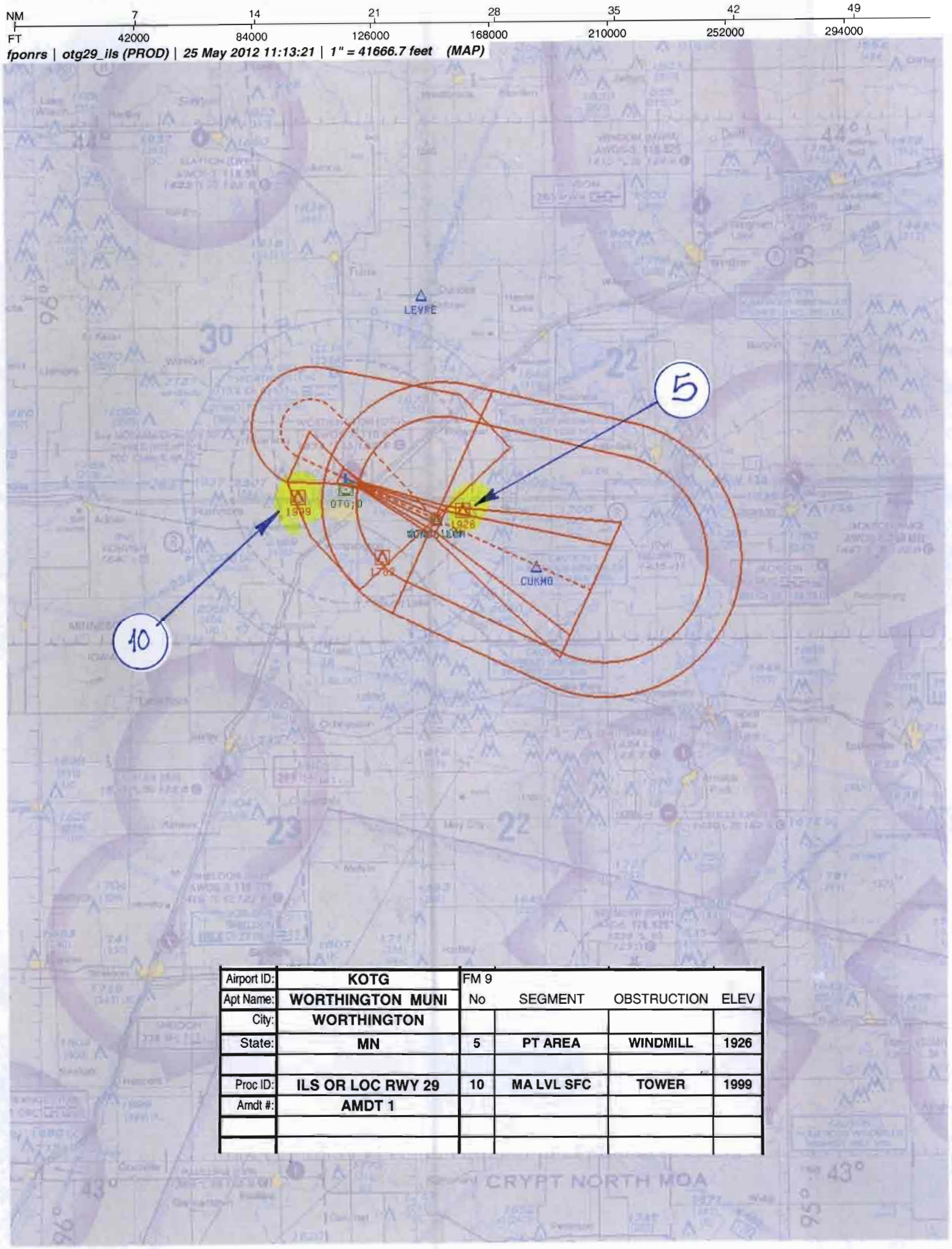
fponrs | otg29_ils (PROD) | 25 May 2012 11:11:45 | 1" = 41666.7 feet (MAP)



Airport ID:	KOTG	FM 9			
Apt Name:	WORTHINGTON MUNI	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORTHINGTON				
State:	MN	5	INTERMEDIATE	WINDMILL	1926
Proc ID:		10	MA LVL SFC	TOWER	1999
Amdt #:					
		#	MA HOLD	WINDMILL	1926



Airport ID:	KOTG	FM 9			
Apt Name:	WORTHINGTON MUNI	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORHTINGTON	1	FEEDER	AAO	1808
State:	MN	3	ARC INITIAL	WINDMILL	1913
Proc ID:	ILS OR LOC RWY 29	5	INTERMEDIATE	WINDMILL	1926
Amdt #:	AMDT 1				
		10	MA LVL SFC	TOWER	1999

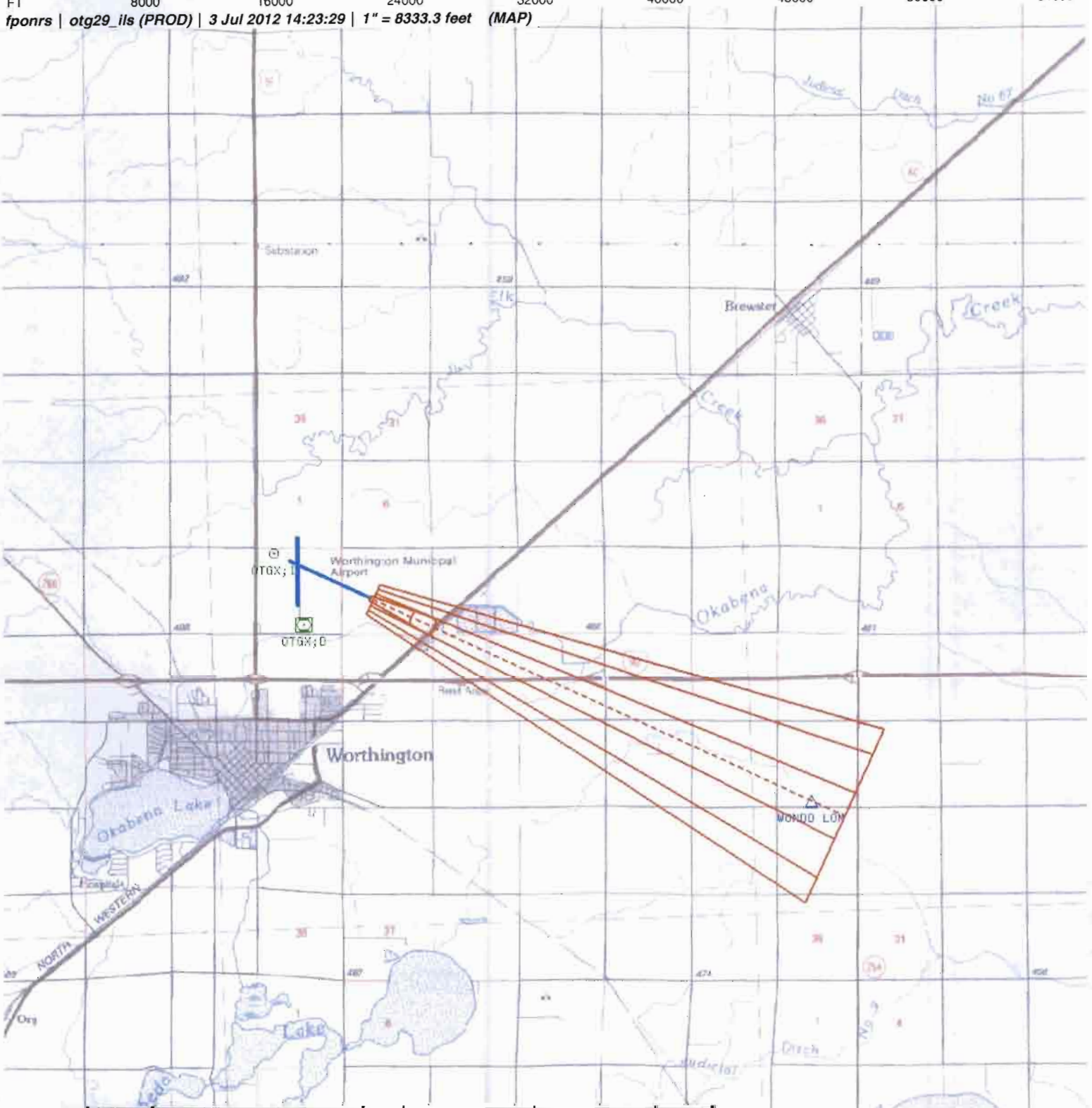


Airport ID:	KOTG	FM 9			
Apt Name:	WORTHINGTON MUNI	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORTHINGTON				
State:	MN	5	PT AREA	WINDMILL	1926
Proc ID:	ILS OR LOC RWY 29	10	MA LVL SFC	TOWER	1999
Amdt #:	AMDT 1				

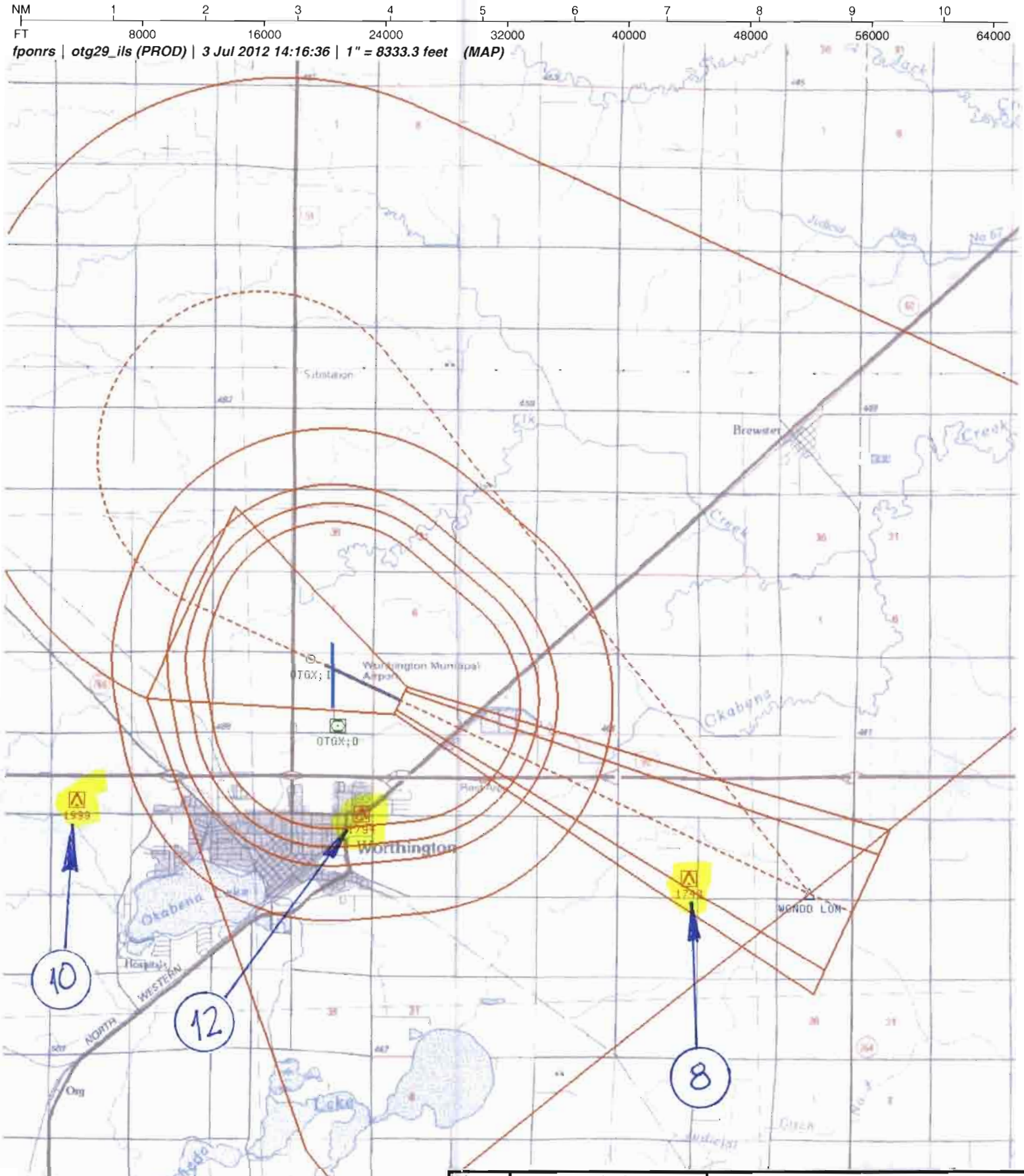
NM 1 2 3 4 5 6 7 8 9 10

FT 8000 16000 24000 32000 40000 48000 56000 64000

fponrs | otg29_ils (PROD) | 3 Jul 2012 14:23:29 | 1" = 8333.3 feet (MAP)



		FM 9			
Airport ID:	KOTG				
Apt Name:	WORTHINGTON MUNI	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORTHINGTON				
State:	MN				
			ILS FINAL	ASC	
Proc ID:	ILS OR LOC RWY 29				
Amdt #:	AMDT 1				



Airport ID:	KOTG	FM 9			
Apt Name:	WORTHINGTON MUNI	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORTHINGTON				
State:	MN	8	LOC FINAL	AAO	1740
Proc ID:	ILS OR LOC RWY 29	12	CIRC A/B/C/D	ELEVATOR	1794
Amdt #:	AMDT 1				
		10	MA LVL SFC	TOWER	1999

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ILS - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.29

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TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
OTG VOR/DME	WONDD LOM/OTG 5.43 DME	101.22 / 5.43	3300
LEVRE/OTG 12.00 DME CW (IAF)	CUKMO/OTG 12.00 DME (NOPT)	12.00 DME ARC (OTG LR-094)	3300
CUKMO/OTG 12.00 DME (IF)	WONDD LOM/OTG 5.43 DME	292.74 / 6.58 (I-OTG)	3300

MISSED APPROACH

ILS: DA
LOC: 4.91 MILES AFTER WONDD LOM/OTG 5.43 DME

CLIMB TO 2500 THEN CLIMBING RIGHT TURN TO 3300 DIRECT WONDD LOM/OTG 5.43 DME AND HOLD.

ADDITIONAL FLIGHT DATA:
HOLD SE, RT, 292.74 INBOUND.
FAS OBST: 1740 AAO 433706N/0952939W
CHART OTG R-014 AT LEVRE.

1. PT L SIDE OF COURSE 112.74 OUTBOUND 3300 FT WITHIN 10 MILES OF WONDD LOM (IAF)
2.
3. FAC: 292.74 FAF: WONDD LOM/OTG 5.43 DME DIST FAF TO MAP: 4.91 THLD: 4.91
4. MIN. ALT: WONDD LOM 3300
5. DIST TO THLD FROM OM: 4.91 MM: - IM: - 150 HAT: - 100 HAT: - GS ANT: 807
6. MIN GS INCPT: 3300 GS ALT AT: - OM: 3205 MM: - IM: -
7. GS ANGLE: 3.00 TCH: 53.0
8. MSA FROM: OT LOM 180-360 3900, 360-180 3100

MAG VAR: 2E EPOCH YEAR: 2015

MINIMUMS

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

CATEGORY =====>	A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
S-ILS 29	1766	1/2	200	1766	1/2	200	1766	1/2	200	1766	1/2	200			
S-LOC 29	2000	1/2	434	2000	1/2	434	2000	3/4	434	2000	3/4	434			
CIRCLING	2100	1	526	2100	1	526	2100	1 1/2	526	2140	2	566			

NOTES:
CHART NOTE: ADF OR DME REQUIRED.
CHART NOTE: AUTOPILOT COUPLED APPROACH NA BELOW 1770.
CHART PLANVIEW NOTE: ADF OR DME REQUIRED.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT.
(SEE FORM 8260-10)

QUALITY 2 CHECKED

CITY AND STATE	ELEVATION: 1574 THRE: 1566 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	WORTHINGTON MUNI	I-OTG	ILS OR LOC RWY 29, AMDT 1	AMDT: ORIG-B
				DATED 02/09/2012

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 ARTCC, AMGR

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: NEIL R. SIMPANEN	FIFO AJV-353	DATE: 07/03/2012
APPROVED BY		
NAME: LARRY H STROUT MANAGER	FIFO AJV-353	DATE:

CHANGES:

1. ALL REFERENCES TO: WONDD LOM/OTG 5.57 DME CHANGED TO WONDD LOM/OTG 5.43 DME.
2. WONDD LOM FIX MOVED FROM OTG 5.57 DME TO OTG 5.43 DME.
3. TERMINAL ROUTE: FROM CUKMO/12 DME ARC TO WONDD LOM/OTG 5.43 COURSE CHANGED COURSE FROM 287.72 TO 292.74.
4. PT OUTBOUND COURSE CHANGED FROM 107.72 TO 112.74.
5. FAC CHANGED FROM 287.72 TO 292.74.
6. S-ILS 29 DA CHANGED FROM 1771 TO 1766 ALL CATS.
7. S-LOC 29 HAT CHANGED FROM 349 TO HATH 434.
8. MISSED APPROACH HOLDING INBOUND RADIAL CHANGED FROM 287.72 TO 292.74.
9. AIRPORT MAG VAR CHANGED FROM 7E 1975 TO 2E 2015.
10. WONDD LOM FIX PLACED ON LOC COURSE 134.98 FT ABEAM ACTUAL OTG;LOM NAVAID.
11. ADDED JACKSON MUNI AS REMOTE ALTIMETER AND ADDED ASSOCIATED NOTES.
12. CHANGED AUTOPILOT COUPLED APPROACH NA BELOW 1700 TO 1770.

REASONS:

1-5. RESULT OF MAG VAR CHANGE FROM 7 EAST TO 2 EAST .
6-7. USE OF THLD ELEVATION VS TDZE TO COMPUTE HAT.
8. RESULT OF MAG VAR CHANGE.
9. AS REQUIRED BY AMOUNT OF DEGREE CHANGE.
10. AS REQUIRED BY CRITERIA TO ESTABLISH LOC FAF ABEAM ACTUAL LOM NAVAID.
11. AS REQUIRED BY CRITERIA.
12. AVNIS DATA.

QUALITY 2 CHECKED

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NOTES, (CONT.):

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE JACKSON ALTIMETER SETTING AND INCREASE ALL DA 78 FEET, ALL MDA 80 FEET, INCREASE S-LOC 29 CAT C AND D AND CIRCLING CAT C VISIBILITY 1/4 MILE.

CHART NOTE: FOR INOPERATIVE MALSR, WHEN USING JACKSON ALTIMETER SETTING, INCREASE S-ILS 29 ALL CATS VISIBILITY TO 7/8 MILE.

QUALITY 2 CHECKED

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

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

ILS STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.29**

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ARINC PACKET - 424-18 - ILS

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        OTG   K3011060VDLA N43384890W095345505    N43384839W095345460E0080015951     NARWORTHINGTON

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CUKMO K30    R     N43341548W095193824                      E0024     NAR           CUKMO
        SUSAEAENRT   LEVRE K30    R   L N43495831W095284903                      E0025     NAR           LEVRE
        SUSAEAENRT   WONDD K30    R     N43370137W095275144                      E0025     NAR           WONDD LOM

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3AOTG     0     055YHN43391820W095344510E002001574         1800018000C    MNAR    WORTHINGTON MUNI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3FI29   ALEVRE 010LEVREK3EA0E  A    IF OTG K3      01360120        D                18000                 0 NS
        SUSAP KOTGK3FI29   ALEVRE 020CUKMOK3EA0EE BR   AF OTG K3      104201200136    D   + 03300                            0 NS
        SUSAP KOTGK3FI29   AOTG   010OTG  K3D 0V       IF                                                18000                 0 NS
        SUSAP KOTGK3FI29   AOTG   020WONDDK3EA0E       TF                                  + 03300                            0 NS
        SUSAP KOTGK3FI29   AOTG   030WONDDK3EA0EE AR   PI IOTGK3      1127006006770100PI  + 03300                            0 NS
        SUSAP KOTGK3FI29   I      010CUKMOK3EA0E  I    IF IOTGK3      11270126        PI  J 033000330018000                  0 NS
        SUSAP KOTGK3FI29   I      020WONDDK3EA0E  F    CF IOTGK3      1127006029300066PI  H 0330003205        -300OT    K3PN0 NS
        SUSAP KOTGK3FI29   I      030RW29 K3PG0GY M    CF IOTGK3      1127001129300049PI    01619             -300          0 NS
        SUSAP KOTGK3FI29   I      040         0  M     CA                      2927        + 02500                            0 NS
        SUSAP KOTGK3FI29   I      050OT   K3PN0NY  R   DF                                  + 03300                            0 NS
        SUSAP KOTGK3FI29   I      060OT   K3PN0NE  R   HM                      2927T010    + 03300                            0 NS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3GRW29    0055002927 N43390474W095335946+0100    +0450801566000053100IIOTG1

                 1         2         3         4         5         6         7         8         9         0         1         2         3
ILS     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAP KOTGK3IIOTG1   011170RW29 N43393165W0953519922927N43391257W0953406581014 08070600300E00205301565

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
```

CITY AND STATE	ELEVATION: **1574** THRE: **1566**	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	AIRPORT NAME: **WORTHINGTON MUNI**	**I-OTG**	**ILS OR LOC RWY 29, AMDT 1**	AMDT: **ORIG-B**
				DATED: **02/09/2012**

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:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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```
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3SOT   K3PN                0   1803600312536018003925                                                                M
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAPNKOTGK3 OT    K3002770HOLW N43370268W095275076                      E0020          NARWONDD
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CITY AND STATE	ELEVATION: 1574 THRE: 1566	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	AIRPORT NAME: WORTHINGTON MUNI	I-OTG	ILS OR LOC RWY 29, AMDT 1	AMDT: ORIG-B
				DATED: 02/09/2012

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:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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.

ARINC SUMMARY - 424-18 - ILS

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	LEVRE	LEVRE	010	IAF	IF		FB					
	LEVRE	CUKMO	020		AF	R	FB		013.6()		AA 03300	
	OTG	OTG	010		IF		FB					
	OTG	WONDD	020		TF		FB				AA 03300	
	OTG	WONDD	030	IAF	PI	R	FB		067.7()	010.0	AA 03300	
		CUKMO	010	FACF	IF		FB				AA 03300 GI 03300	
		WONDD	020	FAF	CF		FB		293.0()	006.6	GI 03300 GS 03205	
		RW29	030	MAP	CF		FO		293.0()	004.9	AT 01619	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		292.7()		AA 02500	
	OT	050		DF	R	FO				AA 03300	
	OT	060		HM	R	FO		292.7()	T01.0	AA 03300	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	OTG	N433848.90	W0953455.05	N4338.815	W09534.918
	CUKMO	N433415.48	W0951938.24	N4334.258	W09519.637
	LEVRE	N434958.31	W0952849.03	N4349.972	W09528.817
	WONDD	N433701.37	W0952751.44	N4337.023	W09527.857
	RW29	N433904.74	W0953359.46	N4339.079	W09533.991
	IOTG (LOC)	N433931.65	W0953519.92	N4339.528	W09535.332
	OT	N433702.68	W0952750.76	N4337.045	W09527.846

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW29	01566	53

QUAL. 1 CHECK

CITY AND STATE	ELEVATION: 1574 THRE: 1566	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	AIRPORT NAME: WORTHINGTON MUNI	I-OTG	ILS OR LOC RWY 29, AMDT 1	AMDT: ORIG-B
				DATED: 02/09/2012

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:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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.

ARINC PACKET - 424-18 - LOC

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        OTG   K3011060VDLA N43384890W095345505    N43384839W095345460E0080015951     NARWORTHINGTON

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CUKMO K30    R     N43341548W095193824                      E0024     NAR           CUKMO
        SUSAEAENRT   LEVRE K30    R   L N43495831W095284903                      E0025     NAR           LEVRE
        SUSAEAENRT   WONDD K30    R     N43370137W095275144                      E0025     NAR           WONDD LOM

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3AOTG     0     055YHN43391820W095344510E002001574         1800018000C    MNAR    WORTHINGTON MUNI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3FL29   ALEVRE 010LEVREK3EA0E  A    IF OTG K3      01360120        D                18000                 0 NS
        SUSAP KOTGK3FL29   ALEVRE 020CUKMOK3EA0EE BR   AF OTG K3      104201200136    D   + 03300                            0 NS
        SUSAP KOTGK3FL29   AOTG   010OTG  K3D 0V       IF                                              18000                 0 NS
        SUSAP KOTGK3FL29   AOTG   020WONDDK3EA0E       TF                                  + 03300                           0 NS
        SUSAP KOTGK3FL29   AOTG   030WONDDK3EA0EE AR   PI IOTGK3      1127006006770100PI  + 03300                           0 NS
        SUSAP KOTGK3FL29   L      010CUKMOK3EA0E  I    IF IOTGK3      11270126        PI  + 03300      18000                0 NS
        SUSAP KOTGK3FL29   L      020WONDDK3EA0E  F    CF IOTGK3      1127006029300066PI  + 03300                OT    K3PN0 NS
        SUSAP KOTGK3FL29   L      030RW29 K3PG0GY M    CF IOTGK3      1127001129300049PI    01619             -323          0 NS
        SUSAP KOTGK3FL29   L      040         0  M     CA                     2927        + 02500                           0 NS
        SUSAP KOTGK3FL29   L      050OT   K3PN0NY  R   DF                                  + 03300                           0 NS
        SUSAP KOTGK3FL29   L      060OT   K3PN0NE  R   HM                     2927T010    + 03300                           0 NS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3GRW29    0055002927 N43390474W095335946+0100    +0450801566000053100IIOTG1

                 1         2         3         4         5         6         7         8         9         0         1         2         3
ILS     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3IIOTG1   011170RW29 N43393165W0953519922927N43391257W0953406581014 08070600300E00205301565

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
```

CITY AND STATE	ELEVATION: 1574 THRE: 1566	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	AIRPORT NAME: **WORTHINGTON MUNI**	**I-OTG**	**ILS OR LOC RWY 29, AMDT 1**	AMDT: **ORIG-B**
				DATED: **02/09/2012**

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:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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.

```
        ------------------------------------------------------------------------------------------------------------------------
        SUSAP KOTGK3SOT   K3PN              0   1803600312536018003925                                                    M
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------
        SUSAPNKOTGK3 OT    K3002770HOLW N43370268W095275076                    E0020          NARWONDD
```

CITY AND STATE	ELEVATION: 1574 THRE: 1566	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	AIRPORT NAME: WORTHINGTON MUNI	I-OTG	ILS OR LOC RWY 29, AMDT 1	AMDT: ORIG-B
				DATED: 02/09/2012

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:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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.

ARINC SUMMARY - 424-18 - LOC

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	LEVRE	LEVRE	010	IAF	IF		FB					
	LEVRE	CUKMO	020		AF	R	FB		013.6()		AA 03300	
	OTG	OTG	010		IF		FB					
	OTG	WONDD	020		TF		FB				AA 03300	
	OTG	WONDD	030	IAF	PI	R	FB		067.7()	010.0	AA 03300	
		CUKMO	010	FACF	IF		FB				AA 03300	
		WONDD	020	FAF	CF		FB		293.0()	006.6	AA 03300	
		RW29	030	MAP	CF		FO		293.0()	004.9	AT 01619	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		292.7()		AA 02500	
	OT	050		DF	R	FO				AA 03300	
	OT	060		HM	R	FO		292.7()	T01.0	AA 03300	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	OTG	N433848.90	W0953455.05	N4338.815	W09534.918
	CUKMO	N433415.48	W0951938.24	N4334.258	W09519.637
	LEVRE	N434958.31	W0952849.03	N4349.972	W09528.817
	WONDD	N433701.37	W0952751.44	N4337.023	W09527.857
	RW29	N433904.74	W0953359.46	N4339.079	W09533.991
	IOTG (LOC)	N433931.65	W0953519.92	N4339.528	W09535.332
	OT	N433702.68	W0952750.76	N4337.045	W09527.846

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW29	01566	53

CITY AND STATE	ELEVATION: 1574 THRE: 1566	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
WORTHINGTON, MN	AIRPORT NAME: WORTHINGTON MUNI	I-OTG	ILS OR LOC RWY 29, AMDT 1	AMDT: ORIG-B
				DATED: 02/09/2012

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:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FEEDER	OTG VOR/DME	WONDD LOM/OTG	1. AAO	433412.00N/0953321.00W	1808 (4E)	1000	AT492	3300
		5.43 DME	2. TERRAIN	433412.00N/0953321.00W	1608 (1600)		AS1500	3100
INITIAL: ARC	LEVRE/OTG 12.00	CUKMO/OTG 12.00	3. WDMILL (27-020138)	433545.56N/0952300.26W	1913 (4D)	1000	AT387	3300
	DME CW	DME	4. TERRAIN	433039.00N/0952154.00W	1526 (1500)		AS1500	3000
INTERMEDIATE: PT	10 NM	WONDD LOM/OTG	5. WDMILL (27-002837)	433706.73N/0952531.82W	1926 (4D)	500	AT874	3300
		5.43 DME	6. TERRAIN	433706.73N/0952531.82W	1520 (1500)		AS1500	3000
INTERMEDIATE	CUKMO/OTG 12.00	WONDD LOM/OTG	5. WDMILL (27-002837)	433706.73N/0952531.82W	1926 (4D)	500	AT874	3300
	DME	5.43 DME	7. TERRAIN	433521.00N/0952648.00W	1542 (1500)		AS1500	3000
FINAL: ILS	GS INTCP	RW29				ASC		1766/200
FINAL: LOC	WONDD LOM/OTG	4.91 MILES AFTER	8. AAO	433705.70N/0952939.17W	1740 (2C)	250		2000
	5.43 DME	WONDD LOM/OTG						
		5.43 DME						
2. PROCEDURE TURN	WONDD LOM	10 NM	5. WINDMILL	433706.73N/0952531.82W	1926 (4D)	1000	AT374	3300
			(27-002837)					
			9. TERRAIN	433324.00N/0953009.00W	1565 (1600)		AS1500	3100
3. MISSED APPROACH — MAP:	DA / 4.91 MILES	WONDD LOM/5.43				ASC		3300
	AFTER WONDD	DME	10. TOWER (27-002295)	433755.50N/0953849.10W	1999 (1A)	1000		3000
ELEV:	1599/1750		11. TERRAIN	434315.00N/0954221.00W	1752 (1800)		AS1500	3300

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL							
CATEGORY A	1.3 NM	350	526	12. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300		2100
CATEGORY B	1.5 NM	450	526	12. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300		2100
CATEGORY C	1.7 NM	450	526	12. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300		2100
CATEGORY D	2.3 NM	550	566	12. ELEV (27-000746)	433747.00N/0953433.00W	1794 (1A)	300	HAA	2140
CATEGORY E	4.5 NM	550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: OT LOM

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
180-360	TWR (27-001466)	307/ 26.9	2828 (4D)	3900					
360-180	TWR (27-001393)	156/ 06.0	2040 (5D)	3100					

QUALITY CHECKED

CITY AND STATE	ELEVATION: 1574 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
WORTHINGTON, MN	WORTHINGTON MUNI	I-OTG	ILS OR LOC RWY 29, AMDT 1	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
PNM FSS ZMP ARTCC		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: I-OTG	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		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: 3.00	ELEV RWY THRESHOLD: 1566.2
	DISTANCE FROM RWY: 807	ELEV GP ANTENNA: 1577.2
		THRESHOLD CROSSING HEIGHT: 53.0

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

10. WAIVERS: NONE

PART D - PREPARED BY: NEIL R. SIMPANEN	DATE: 07/03/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

VDP NOT ESTABLISHED - FINAL FACILITY DOES NOT HAVE DME.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

RASS PRESSURE PATTERNS SAME
KOTG 1574, KMJQ 1446.8
RA = 77.2.
SEE ATTACHED AIRSPACE LETTER.

VDA NA. PRECISION/VERTICAL PATH PROCEDURE.

VGSI DATA 3.00/43 TCH.

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CUKMO **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 433415.48N/0951938.24W **TYPE:** WP, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	WORTHINGTON	I-OTG	LOC		112.74	114.74		12.56		3300	6000
2	WORTHINGTON	OTG	VOR/DME	L			12.00	12.00		3300	6000

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SE		WP	112.88	292.88	R		4	3300	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (27-020063)	433705.17N/0952502.77W	1922	5E

HOLDING RESTRICTIONS:
HOLDING RESTRICTED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 29	1, 2		KOTG	WORTHINGTON	MN (US)
IAP	RNAV (GPS) RWY 11		1	KOTG	WORTHINGTON	MN (US)
IAP	RNAV (GPS) RWY 29		1	KOTG	WORTHINGTON	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 01/10/2013

REASON FOR REVISION:
1. ADDED WP TYPE.
2. ADDED ALL HOLDING DATA FOR RNAV PROCEDURES.
3. UPDATED FIX USE WITH RNAV PROCEDURES.
4. ADDED HOLDING RESTRICTION NOTE.
5. ADDED PRECIPITOUS TERRAIN NOTE.
6. UPDATED LOC COURSE.

DEVELOPED BY: **DATE:** 07/02/2012 **OFFICE:** AJV-353 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: LEVRE **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 434958.31N/0952849.03W **TYPE:** DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	WORTHINGTON	OTG	VOR/DME	L	013.59	021.59	12.00	12.00		3400	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V175	1				(US)
IAP	ILS OR LOC RWY 29	1		KOTG	WORTHINGTON	MN (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 01/10/2013

REASON FOR REVISION:
1. CORRECTED SIAP NAME FROM ILS OR LOC29 TO ILS OR LOC RWY 29.
2. ADDED V175 TO FIX USE.
3. REVISED MRA FROM 3300 TO 3400.

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-353 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WONDD LOM **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 433701.37N/0952751.44W **TYPE:** DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	WONDD	OT	LOM								17500
2	WORTHINGTON	I-OTG	LOC		112.74	119.74		5.98		3300	17500
3	WORTHINGTON	OTG	VOR/DME	L	101.22	109.22	5.43	5.43		3300	17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SE	OT	LOM	112.74	292.74	R	1		3300	6000	4	5
2	SE	OT	LOM	112.55	292.55	R	1		3300	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (27-002837)	433706.73N/0952531.82W	1926	4D
2	200	WINDMILL (27-002837)	433706.73N/0952531.82W	1926	4D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
COORDINATES REFLECT LOCATION ON LOC/AZ CENTERLINE ABEAM THE WONDD LOM.
ACTUAL FACILITY LOCATION IS 433702.58N/0952750.67W.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 29	1, 2, 3	1	KOTG	WORTHINGTON	MN (US)
IAP	NDB RWY 29	2	2	KOTG	WORTHINGTON	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 01/10/2013

REASON FOR REVISION:
1. FAC 2 DIST FROM FAC CHANGED FROM 5.57 TO 5.43.
2. HOLDING PATTERN 1 RAD/CRS/BRG CHANGED FROM 107.72/287.72 TO 112.74/292.74.
3. HOLDING PATTERN 2 REVISED TO REFLECT HOLDING AT THE OT LOM.
4. FIX USE UPDATED.
5. WONDD LOM, THE FIX, PLACED ABEAM OT LOM ON LOC COURSE, UPDATED LAT/LONG.
6. KOTG MAG VAR CHANGED FROM 7E 1975 TO 2E 2015.
7. UPDATED LOC COURSE.
8. UPDATED HOLDING FIX PATTERN TEMPLATES.

DEVELOPED BY: **DATE:** 06/29/2012 **OFFICE:** AJV-353 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WORTHINGTON VOR/DME **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 433848.90N/0953455.05W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	WORTHINGTON	OTG	VOR/DME	L							33000

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	N	OTG	VOR/DME	350.00	170.00	R	1		3400	14000	4	12
2	E	OTG	VOR/DME	082.00	262.00	R	1		3300	14000	4	10
3	E		WP	082.00	262.00	R		4	3400	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (27-000001)	433748.00N/0954043.00W	2307	4D
1	310	TOWER (27-000001)	433748.00N/0954043.00W	2307	4D
2	200	TOWER (27-000001)	433748.00N/0954043.00W	2307	4D
3	200	TOWER (27-000001)	433748.00N/0954043.00W	2307	4D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR RWY 18	KOTG	WORTHINGTON	MN (US)
1	VOR RWY 36	KOTG	WORTHINGTON	MN (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SCHEP			KANE	MINNEAPOLIS	MN (US)
DP	SCHEP			KFCM	MINNEAPOLIS	MN (US)
DP	SCHEP			KMSP	MINNEAPOLIS	MN (US)
DP	SCHEP			KSTP	ST PAUL	MN (US)
EN ROUTE	V170					MN (US)
EN ROUTE	V175					MN (US)
EN ROUTE	V250					MN (US)
IAP	GPS RWY 16			KRRQ	ROCK RAPIDS	IA (US)
IAP	RNAV (GPS) RWY 15			KSHL	SHELDON	IA (US)
IAP	RNAV (GPS) RWY 12			KSPW	SPENCER	IA (US)
IAP	NDB RWY 13			KMJQ	JACKSON	MN (US)
IAP	RNAV (GPS) RWY 13			KMJQ	JACKSON	MN (US)
IAP	RNAV (GPS) RWY 18			KLYV	LUVERNE	MN (US)
IAP	RNAV (GPS) RWY 36			KPQN	PIPESTONE	MN (US)
IAP	GPS RWY 35		3	KDVP	SLAYTON	MN (US)
IAP	RNAV (GPS) RWY 15			KJYG	ST JAMES	MN (US)
IAP	RNAV (GPS) RWY 33			KJYG	ST JAMES	MN (US)
IAP	RNAV (GPS) RWY 29			KTKC	TRACY	MN (US)
IAP	NDB RWY 17			KMWM	WINDOM	MN (US)
IAP	ILS OR LOC RWY 29			KOTG	WORTHINGTON	MN (US)
IAP	NDB RWY 29			KOTG	WORTHINGTON	MN (US)
IAP	RNAV (GPS) RWY 11			KOTG	WORTHINGTON	MN (US)
IAP	RNAV (GPS) RWY 18			KOTG	WORTHINGTON	MN (US)
IAP	RNAV (GPS) RWY 29			KOTG	WORTHINGTON	MN (US)
IAP	RNAV (GPS) RWY 36			KOTG	WORTHINGTON	MN (US)
IAP	VOR RWY 11		2	KOTG	WORTHINGTON	MN (US)
IAP	VOR RWY 18		1	KOTG	WORTHINGTON	MN (US)
IAP	VOR RWY 36		1	KOTG	WORTHINGTON	MN (US)

REQUIRED CHARTING: DP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9 **DATE OF REVISION:** 01/10/2013

REASON FOR REVISION:

QUALITY 2 CHECKED

FACILITY MOVED 1.01 FT SOUTH; NEW SURVEY.
UPDATED FIX COORDINATES.
UPDATED FIX USE.
ADDED C-I-H TO PATTERN #1.
INCREASED PATTERN #1 MAX TEMPLATE FROM 10 TO 12.

DEVELOPED BY:	**DATE:** 06/14/2012	**OFFICE:** AJV-353	**NAME:** GRACE NOWAK
APPROVED BY:	**DATE:**	**OFFICE:** AJV-353	**NAME:** LARRY STROUT
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

QUALITY 2 CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **WORTHINGTON** STATE: **MN**

AIRPORT NAME: **WORTHINGTON MUNI** ID: **KOTG**

PROCEDURE: **ILS OR LOC RWY 29** AMDT: **1**

DOCKET#: **NOT REQUIRED**
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **3.08**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **0.89**
   (Enter appropriate segment, final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **294.74**
4. High Terrain in **FINAL** segment containing 1000' point **1556**
5. Distance from **THLD** to 1500' point **4.65**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **FINAL** segment at 1500' point **1.22**
7. True Course of **FINAL** segment containing 1500' point **294.74**
8. High Terrain in **FINAL** segment containing 1500' point **1556**
9. Threshold Coordinates (if straight-in) ... **433904.74N** / **0953359.46W**
10. ARP Coordinates ..... **433918.20N** / **0953445.10W**
11. Runway Approach End and distance furthest from ARP ..... RWY **29**
    Distance **0.60** NM
12. FAF Coordinates ..... **433701.37N** / **0952751.44W**

REMARKS: Approach/Drawing attached.

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
DATE
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