Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 08/08/2011	Task #: 2011061422491720002	Request #: 20110614224917
Procedure: RNAV (GPS) RWY 24 AMDT 1		Airport ID: KCGF	Airport: CUYAHOGA COUNTY		Reimbursable #:
City: CLEVELAND	ST: OH	GPS #:		Estimated Chart Date: 06/28/2012	FICO #:
Fac ID:	Fac. Type: LPV	Specialist: TERENCE SHARP			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	11/09/2011	02/28/2012	JILL OLSON	
QA:	02/28/2012	02/29/2012	SCOTT BEARD	
Liaison:	02/29/2012		Torrell	

Procedure Comments: ENROUTE **Remark Type:** INFORMATION

CLEVELAND, OH CUYAHOGA COUNTY (KCGF) RNAV (GPS) RWY 24, AMDT 1 (LPV) ENROUTE-YES FC: 5.1.12 PUB: 6.28.12

ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): EBLIS-INT, REV 7; HIGUL, ORIG; IMUSY-INT, REV 2; KROOK-INT, REV 7; ZUPKO, ORIG; WEIDS-INT, REV 5.

CONTACT: JILL OLSON, AJV-353 LEAD, 405.954.9568:

RNAV (GPS) RWY 24

CLEVELAND/CUYAHOGA COUNTY (CGF)

WAAS	APP CRS	Rwy Idg	5102
CH 42528	238°	THRE	879
W24A		Apt Elev	879

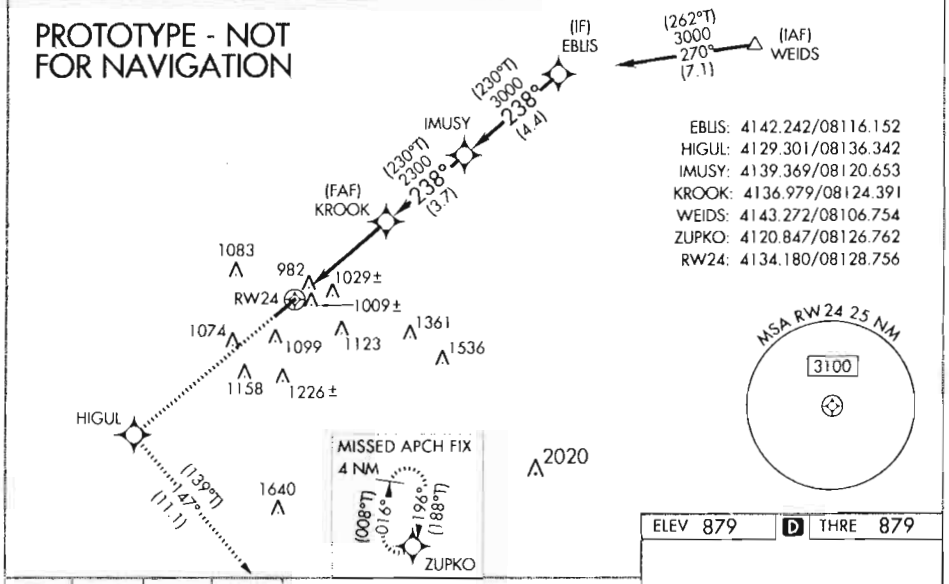
Baro-VNAV NA when using Cleveland-Hopkins Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 38°C (100°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP NA with Cleveland-Hopkins Intl altimeter setting. When local altimeter setting not received, use Cleveland-Hopkins Intl altimeter setting and increase all DA 57 feet and all MDA 60 feet, increase LNAV visibility Cats C, D and Circling Cat C ¼ mile. For inoperative MALSR increase LNAV/VNAV visibility all Cats to 1 mile, LNAV Cat A, B visibility to 1 mile and Cat C, D to 1⅛ mile. For inoperative MALSR when using Cleveland-Hopkins Intl altimeter setting, increase LPV visibility all Cats to 1¼ mile, LNAV/VNAV visibility all Cats to 1 mile, and LNAV Cat A, B visibility to 1 mile, Cat C, D visibility to 1⅛ mile.

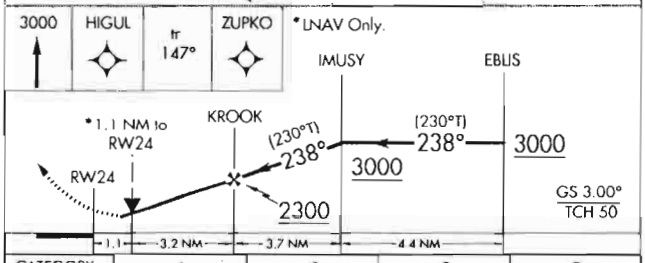
MALSR

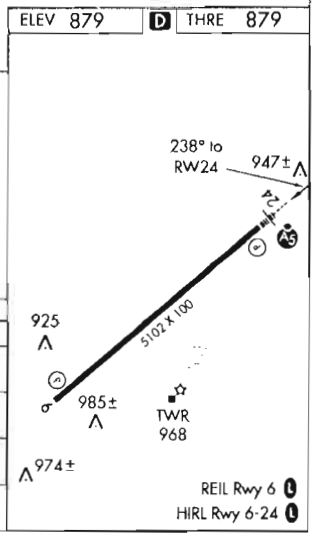
MISSED APPROACH: Climb to 3000 direct HIGUL and on track 147° to ZUPKO and hold.

CLEVELAND APP CON	COUNTY TOWER*	GND CON	CLNC DEL
125.35 354.025	118.5 (CTAF)	121.85	121.85

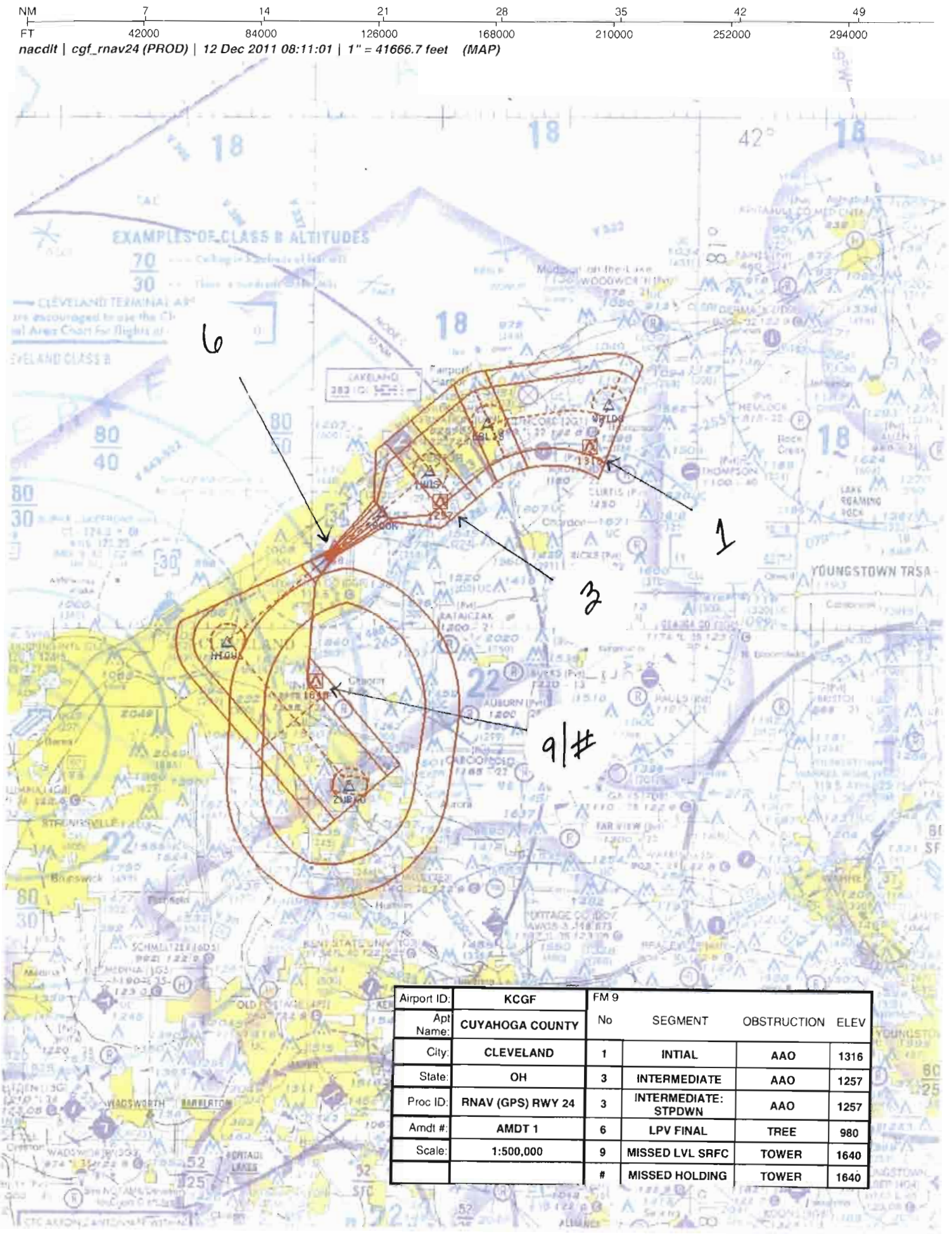
PROTOTYPE - NOT FOR NAVIGATION







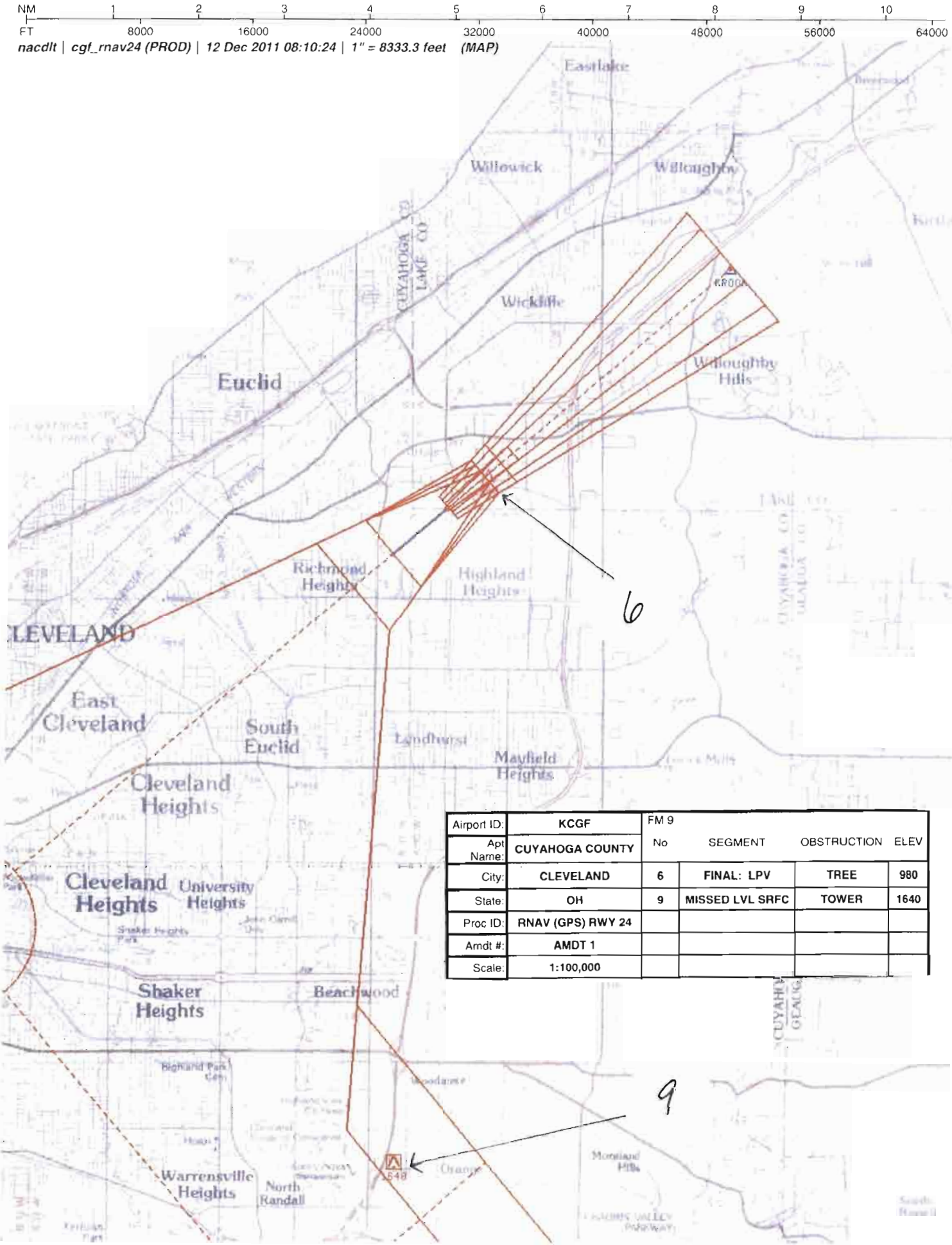
CATEGORY	A	B	C	D
LPV DA	1192-¾ 313 (400 ¾)			
LNAV/VNAV DA	1190-¾ 311 (400-¾)			
LNAV MDA	1280-¾ 401 (500-¾)			
CIRCLING	1400-1 521 (600-1)	1420-1 541 (600-1)	1420-1½ 541 (600-1½)	1480-2 601 (700-2)



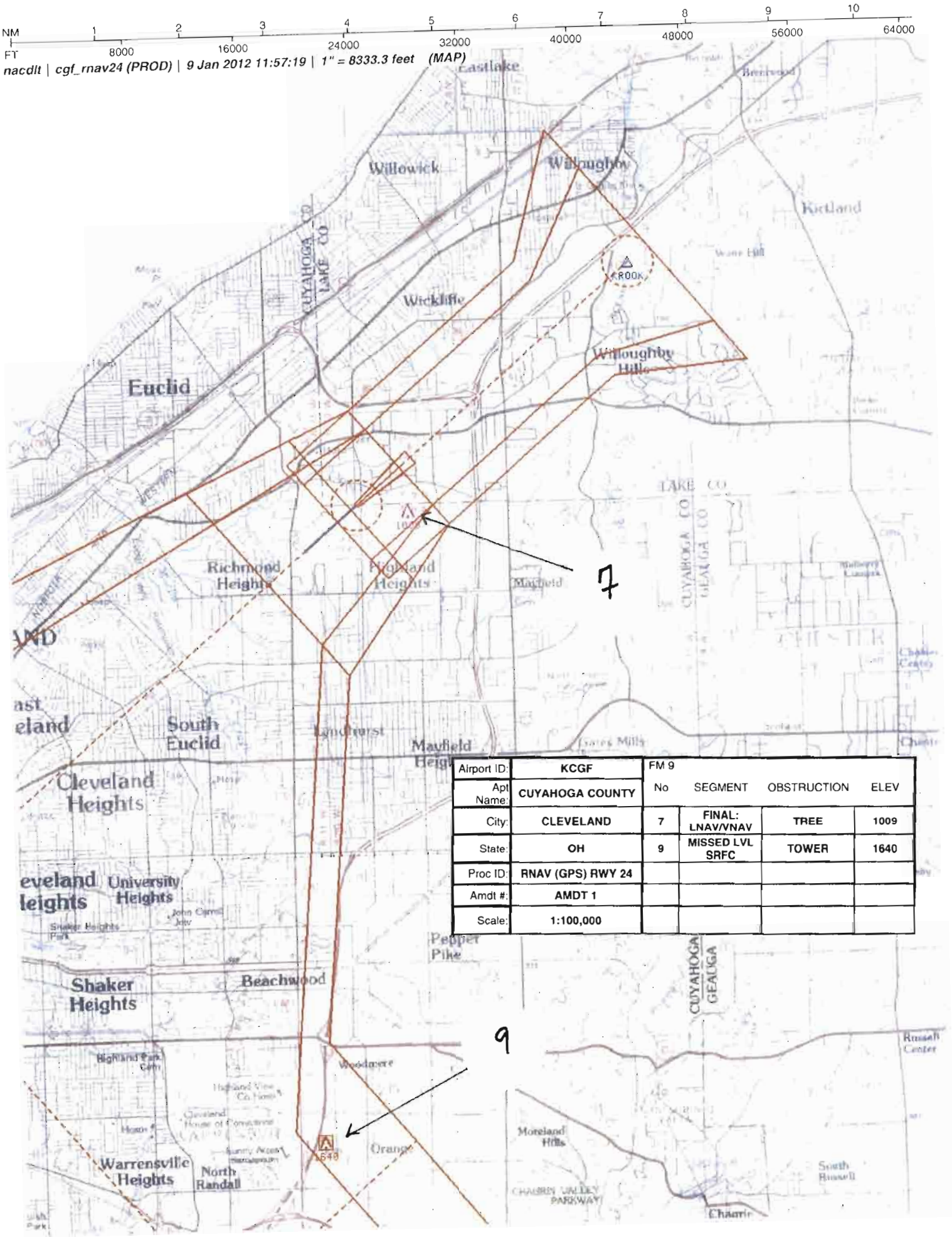
Airport ID:	KCGF
Apt Name:	CUYAHOGA COUNTY
City:	CLEVELAND
State:	OH
Proc ID:	RNAV (GPS) RWY 24
Amdt #:	AMDT 1
Scale:	1:500,000

FM 9

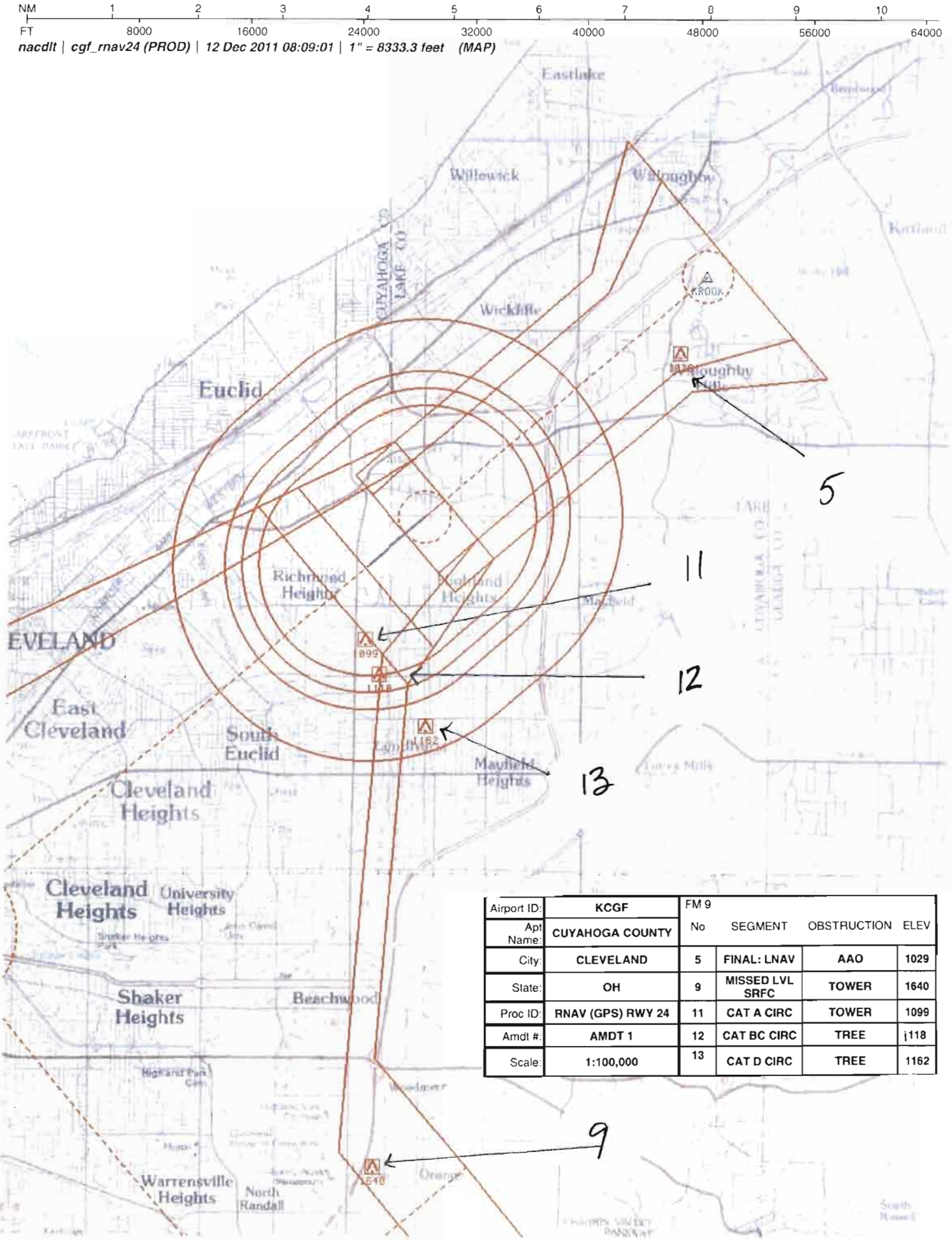
No	SEGMENT	OBSTRUCTION	ELEV
1	INTIAL	AAO	1316
3	INTERMEDIATE	AAO	1257
3	INTERMEDIATE: STPDWN	AAO	1257
6	LPV FINAL	TREE	980
9	MISSED LVL SRFC	TOWER	1640
#	MISSED HOLDING	TOWER	1640



Airport ID:	KCGF	FM 9			
Apt Name:	CUYAHOGA COUNTY	No	SEGMENT	OBSTRUCTION	ELEV
City:	CLEVELAND	6	FINAL: LPV	TREE	980
State:	OH	9	MISSED LVL SRFC	TOWER	1640
Proc ID:	RNAV (GPS) RWY 24				
Amdt #:	AMDT 1				
Scale:	1:100,000				



Airport ID:	KCGF	FM 9			
Apt Name:	CUYAHOGA COUNTY	No	SEGMENT	OBSTRUCTION	ELEV
City:	CLEVELAND	7	FINAL: LNAV/VNAV	TREE	1009
State:	OH	9	MISSED LVL SRFC	TOWER	1640
Proc ID:	RNAV (GPS) RWY 24				
Amdt #:	AMDT 1				
Scale:	1:100,000				



Airport ID:	KCGF	FM 9			
Apt Name:	CUYAHOGA COUNTY	No	SEGMENT	OBSTRUCTION	ELEV
City:	CLEVELAND	5	FINAL: LNAV	AAO	1029
State:	OH	9	MISSED LVL SRFC	TOWER	1640
Proc ID:	RNAV (GPS) RWY 24	11	CAT A CIRC	TOWER	1099
Amdt #:	AMDT 1	12	CAT BC CIRC	TREE	1118
Scale:	1:100,000	13	CAT D CIRC	TREE	1162

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33

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
WEIDS (IAF)	EBLIS (FB)	269.73 / 7.11	3000
EBLIS (IF)	IMUSY (FB)	237.62 / 4.43	3000
IMUSY	KROOK (FB)	237.57 / 3.68	2300
KROOK (FAF)	RW24 (MAP) (FO)	237.53 / 4.31	
RW24 (MAP)	1190 MSL	237.53	
1190 MSL	HIGUL (FB)		
HIGUL	ZUPKO (FO)	147.48 / 11.11	3000

MISSED APPROACH

LPV: DA
LNAV/VNAV: DA
LNAV: RW24

CLIMB TO 3000 DIRECT HIGUL AND ON TRACK 147.48 TO ZUPKO AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT EBLIS
3. FAC: 237.53 FAF: KROOK DIST FAF TO MAP: 4.31 THLD: 4.31
4. MIN. ALT: EBLIS 3000, IMUSY 3000, KROOK 2300
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2300 GS ALT AT: KROOK OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 49.6 34:1 IS NOT CLEAR
8. MSA FROM: RW24 3100

ADDITIONAL FLIGHT DATA:

HOLD N, RT, 195.61 INBOUND.
CHART FAS OBST: 1009 TREE 413400N/0812757W
FAS OBST: 1029 AAO 413600N/0812448W
DISTANCE TO THLD FROM 311 HATH: 0.82 NM.
CHART VDP AT 1.10 MILES TO RW24*
*LNAV ONLY.
WAAS CHANNEL # 42528
REFERENCE PATH ID: W24A
LTP HAE: 233.6 M

MAG VAR: 8W EPOCH YEAR: 1995

MINIMUMS

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

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
LPV DA	1192	3/4	313	1192	3/4	313	1192	3/4	313	1192	3/4	313			
LNAV/VNAV DA	1190	3/4	311	1190	3/4	311	1190	3/4	311	1190	3/4	311			
LNAV MDA	1280	3/4	401	1280	3/4	401	1280	3/4	401	1280	3/4	401			
CIRCLING	1400	1	521	1420	1	541	1420	1 1/2	541	1480	2	601			

NOTES:
CHART NOTE: BARO-VNAV NA WHEN USING CLEVELAND-HOPKINS INTL ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 38C (100F).
CHART NOTE: DME/DME RNP-0.3 NA.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
(SEE FORM 8260-10)

@ NA WHEN LOCAL WEATHER NOT AVAILABLE.

QUALITY IS CHECKED

CITY AND STATE	ELEVATION: 879 THRE: 879 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
CLEVELAND, OH	CUYAHOGA COUNTY	RNAV	RNAV (GPS) RWY 24, AMDT 1	AMDT: ORIG
				DATED 07/02/2009

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]	[X] ZOB, CLE APP CON, CGF ATCT, AMGR

FLIGHT CHECKED BY

NAME:	FIFO	DATE:

DEVELOPED BY

NAME:	FIFO	DATE:
TERENCE D. SHARP (DAVID TEFFETELLER)	AJV-351	12/07/2011

APPROVED BY

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

CHANGES:

1. ADDED LPV AND LNAV/VNAV LINE OF MINIMA
2. CHANGED MISSED APPROACH FROM CLIMB TO 3000 DIRECT EUKER AND VIA TRACK 148.46 TO WEXER AND HOLD TO READ CLIMB TO 3000 DIRECT HIGUL AND VIA TRACK 147.48 TO ZUPKO AND HOLD
3. CHANGED INTERMEDIATE STEPDOWN LENGTH FROM 3.74 TO 3.68
4. CHANGED FINAL SEGMENT LENGTH FROM 4.25 TO 4.31
5. CHANGED LNAV ALL CATS MDA FROM 1300 TO 1280

REASONS:

1. FPT REQUEST
2. .54A LEG LENGTH CRITERIA, EUKER USED ON OTHER PROCEDURES
3/4. .54A PFAF FORMULA
5. NEW CONTROLLING OBSTACLE IN FINAL SEGMENT.

CHANGES TO FORM MADE OUTSIDE OF IFP-SIAP:
8260-3
1. ADDED FAF TO TERMINAL ROUTES FROM COLUMN
2. ADDED 11.1 TO HIGUL ? ZUPKO TERMINAL ROUTES DISTANCE COLUMN
3. ADDED (FB) TO HIGUL IN TERMINAL ROUTES TO COLUMN
8260-9
1. ADDED RW24 TO LPV AND LNAV/VNAV SEGMENTS TO COLUMN

SEE 8260-10

QUALITY CHECKED

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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NOTES, (CONT.):
CHART NOTE: VDP NA WITH CLEVELAND-HOPKINS INTL ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CLEVELAND-HOPKINS INTL ALTIMETER SETTING AND INCREASE ALL DA 57 FEET AND ALL MDA 60 FEET, INCREASE LNAV VISIBILITY CATS C, D AND CIRCLING CAT C 1/4 MILE.

CHART NOTE: FOR INOPERATIVE MALSR INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 1 MILE, LNAV CAT A, B VISIBILITY TO 1 MILE AND CAT C, D TO 1 1/8 MILE.

CHART NOTE: FOR INOPERATIVE MALSR WHEN USING CLEVELAND-HOPKINS INTL ALTIMETER SETTING, INCREASE LPV VISIBILITY ALL CATS TO 1 1/4 MILE, LNAV/VNAV VISIBILITY ALL CATS TO 1 MILE, AND LNAV CAT A, B VISIBILITY TO 1 MILE, CAT C, D VISIBILITY TO 1 1/8 MILE.

QUALITY 6 CHECKED

CITY AND STATE	ELEVATION: 879 THRE: 879	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
CLEVELAND, OH	AIRPORT NAME: CUYAHOGA COUNTY	RNAV	RNAV (GPS) RWY 24, AMDT 1	AMDT: ORIG
				DATED: 07/02/2009

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

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:

REASONS CONT.
8260-10
1. REMOVED 2.0 FROM MISSED APPROACH

QUALITY CHECKED

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FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KCGF
RUNWAY	RW24
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W24A
LTP/FTP LATITUDE	413410.8185N
LTP/FTP LONGITUDE	0812845.3705W
LTP/FTP ELLIPSOIDAL HEIGHT	+02336
FPAP LATITUDE	413312.8900N
FPAP LONGITUDE	0813015.5800W
THRESHOLD CROSSING HEIGHT (TCH)	00049.6
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1192
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	B6412BCC

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02679
FPAP ORTHOMETRIC HEIGHT	+02679

QUALITY CHECKED

CITY AND STATE	ELEVATION: 879 THRE: 879	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
CLEVELAND, OH	AIRPORT NAME: CUYAHOGA COUNTY	RNAV	RNAV (GPS) RWY 24, AMDT 1	AMDT: ORIG
				DATED: 07/02/2009

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

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:

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ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP       123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         ------------------------------------------------------------------------------------------------------------------------------------
         SUSAEAENRT   EBLIS K50    C     N41421453W081160909                      W0086     NAR           EBLIS
         SUSAEAENRT   HIGUL K50    W     N41291805W081362054                      W0083     NAR           HIGUL
         SUSAEAENRT   IMUSY K50    C     N41392216W081203920                      W0086     NAR           IMUSY
         SUSAEAENRT   KROOK K50    C     N41365872W081242346                      W0085     NAR           KROOK
         SUSAEAENRT   WEIDS K50    C   L N41431632W081064525                      W0087     NAR           WEIDS
         SUSAEAENRT   ZUPKO K50    W     N41205084W081264571                      W0084     NAR           ZUPKO

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         ------------------------------------------------------------------------------------------------------------------------------------
         SUSAP KCGFK5ACGF     0     051YHN41335440W081291090W008000879         1800018000C    MNAR    CUYAHOGA COUNTY

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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         SUSAP KCGFK5FR24   AWEIDS 010WEIDSK5EA0E  A    IF                                          18000                A JS
         SUSAP KCGFK5FR24   AWEIDS 020EBLISK5EA0EE B 010TF                     26970071    + 03000                      A JS
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         SUSAP KCGFK5FR24   R       011IMUSYK5EA0E S  051TF                    23760044    + 03000                      A JS
         SUSAP KCGFK5FR24   R       020KROOKK5EA1E  F 051TF                    23760037    + 02300                RW24  K5PGA JS
         SUSAP KCGFK5FR24   R       020KROOKK5EA2WALPV       ALNAV/VNAV ALNAV                                          JS
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         SUSAP KCGFK5FR24   R       070ZUPKOK5EA0EE  R   HM                    19560040    + 03000                      A JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY   123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         ------------------------------------------------------------------------------------------------------------------------------------
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                 1         2         3         4         5         6         7         8         9         0         1         2         3
PP       123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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         SUSAP KCGFK5PR24   RW24 002E      +02679+02679LPV       42528

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         ------------------------------------------------------------------------------------------------------------------------------------
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QUALITY 6 CHECKED

CITY AND STATE	ELEVATION: 879 THRE: 879	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
CLEVELAND, OH	AIRPORT NAME: **CUYAHOGA COUNTY**	**RNAV**	**RNAV (GPS) RWY 24, AMDT 1**	AMDT: **ORIG**
				DATED: **07/02/2009**

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

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 KCGFK5SRW24 K5PG 0 18018003125 M

QUALITY CHECKED

CITY AND STATE	ELEVATION: 879 THRE: 879	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
CLEVELAND, OH	AIRPORT NAME: CUYAHOGA COUNTY	RNAV	RNAV (GPS) RWY 24, AMDT 1	AMDT: ORIG
				DATED: 07/02/2009

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

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:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	WEIDS	WEIDS	010	IAF	IF		FB					
	WEIDS	EBLIS	020		TF		FB	1.0	269.7(261.7T)	007.1	AA 03000	
		EBLIS	010	FACF	IF		FB				AA 03000	
		IMUSY	011	SDF	TF		FB	0.5	237.6(229.6T)	004.4	AA 03000	
		KROOK	020	FAF	TF		FB	0.5	237.6(229.6T)	003.7	AA 02300	
		RW24	030	MAP	TF		FO	0.3	237.5(229.5T)	004.3	AT 00928	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		237.5(229.5T)		AA 01190	
	HIGUL	050		DF		FB					
	ZUPKO	060		TF		FO	1.0	147.5(139.5T)		AA 03000	
	ZUPKO	070		HM	R	FO		195.6(187.6T)	004.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	EBLIS	N414214.53	W0811609.09	N4142.242	W08116.152
	HIGUL	N412918.05	W0813620.54	N4129.301	W08136.342
	IMUSY	N413922.16	W0812039.20	N4139.369	W08120.653
	KROOK	N413658.72	W0812423.46	N4136.979	W08124.391
	WEIDS	N414316.32	W0810645.25	N4143.272	W08106.754
	ZUPKO	N412050.84	W0812645.71	N4120.847	W08126.762
	RW24	N413410.82	W0812845.37	N4134.180	W08128.756

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW24	00879	50

QUALITY CHECKED

CITY AND STATE	ELEVATION: 879 THRE: 879	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
CLEVELAND, OH	AIRPORT NAME: **CUYAHOGA COUNTY**	**RNAV**	**RNAV (GPS) RWY 24, AMDT 1**	AMDT: **ORIG**
				DATED: **07/02/2009**

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

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.
INITIAL	WEIDS	EBLIS	1. AAO	414021.00N/0810812.00W	1316 (4E)	1000	AT684	3000
			2. TERRAIN	414021.00N/0810812.00W	1116 (1100)		AS1500	2600
INTERMEDIATE	EBLIS	IMUSY	3. AAO	413706.00N/0811948.00W	1257 (4E)	500	AC98 AT1145	3000
			4. TERRAIN	413857.00N/0811721.00W	978 (1000)		AS1500	2500
INTERMEDIATE: STEPDOWN	IMUSY	KROOK	3. AAO	413706.00N/0811948.00W	1257 (4E)	500	AC98 AT445	2300
			5. TERRAIN	413715.00N/0811954.00W	968 (1000)		AS1000	2000
FINAL: LPV	KROOK		6. TREE (KCGF0064)	413429.34N/0812806.19W	980 (1A)	34:1	MA63	1192/313
FINAL: LNAV/VNAV	KROOK		7. TREE	413400.47N/0812756.98W	1009 (2C)	PDA	AC20	1190/311
FINAL: LNAV	KROOK	RW24	8. AAO	413600.00N/0812448.00W	1029 (2C)	250		1280
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA / RW24	ZUPKO	6. TREE (KCGF0064)	413429.34N/0812806.19W	980 (1A)	ASC		3000
			9. TOWER (39-001493)	412632.39N/0812928.12W	1640 (5D)	1000		2700
ELEV:	978/1029/1180		10. TERRAIN	412648.00N/0813018.00W	1264 (1300)		AS1500	2800

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL		OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
CATEGORY A	1.3 NM	350	521		11. TOWER (39-002613)	413240.00N/0812939.00W	1099 (1A)	300		1400
CATEGORY B	1.5 NM	450	541		12. TREE (KCGFT0066)	413215.69N/0812925.82W	1118 (2C)	300		1420
CATEGORY C	1.7 NM	450	541		12. TREE (KCGFT0066)	413215.69N/0812925.82W	1118 (2C)	300		1420
CATEGORY D	2.3 NM	550	601		13. TREE (KCGFT0081)	413139.32N/0812843.11W	1162 (1B)	300		1480
CATEGORY E	4.5 NM	550								

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW24

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	MSA
360-360	TWR (39-000134)	229/ 16.4	2049 (4D)	3100					

ALT. & CHECKED

CITY AND STATE	AIRPORT	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
CLEVELAND, OH	ELEVATION: 879 AIRPORT NAME: CUYAHOGA COUNTY	RNAV	RNAV (GPS) RWY 24, AMDT 1	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
ZOB ARTCC **CLE APP CON** **CGF TOWER**	NWS / FAA / A/C — OTHER: **AWOS-3**	SOURCE: **KCGF / KCLE** DISTANCE: **0 / 19.07** HOURS REMOTE OPERATION: **24 / 24**
SATISFACTORY ON:		
X VHF **X** UHF ___ HF	LOCATION: **KCGF**	ADJUSTMENT: **0 / 0**

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN: CAT 1	
	HRS OPTN: CAT 3	

	ALS
	(S) SALS
X	**MALSR 24 (PCL)**
X	**HIRL 24 (PCL), 06 (PCL)**
	MIRL
X	**REIL 06 (PCL)**
	TDZ
	C/LINE
X	**OTHER (SPECIFY)** **PAPI-4L 24 (PCL), 06**

5. APPROACH & RUNWAY LIGHTING

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	**PIR-G 24**
	INSTRUMENT	**NPI-G 06**
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE: **3.00**	ELEV RWY THRESHOLD: **878.7**
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: **49.6**

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

10. WAIVERS: **NONE**

PART D - PREPARED BY: **TERENCE D. SHARP (DAVID TEFFETELLER)**	DATE: **12/07/2011**
TITLE: **AERONAUTICAL INFORMATION SPECIALIST**	OFFICE: **AJV-351**

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

BLOCK 3:
SERVICE A: Y/Y
ADJUSTMENT: 0/57FT

NO ADDITIONAL AIRSPACE REQUIRED.
RASS PRESSURE PATTERNS SAME
KCGF 878.8, KCLE 791.40
RA = 56.10 (57).

VGSI DATA: 3.00/50FT

100FT VEGETATION HEIGHT USED

RWY 24 34:1 PENETRATIONS:
960 TREE (KCGF0056) 413420.79N/0812816.64W (19.00)
980 TREE (KCGF0064) 413429.34N/0812806.19W (4.72)

TAA AND H-I-L NOT DEVELOPED PER FPT REQUEST

INTERMEDIATE STEPDOWN DEVELOPED TO MATCH ILS PROCEDURE (NAVAID LIMITATION)

ISA DEVIATION: 5 YR HISTORY NOT AVAILABLE; STANDARD -30C DEVIATION USED.

LPV SLOPE 34:1
LNAV/VNAV SLOPE 23.44:1

OBS #3 860.72FT INTO SECONDARY AREA

OBS #9 844.72FT INTO SECONDARY AREA

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: EBLIS **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 414214.53N/0811609.09W **TYPE:** WP, INT, 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	CLEVELAND	I-CGF	LOC/DME		057.48	049.48	13.43	13.42		3000	5300
2	CHARDON	CXR	VOR/DME	H	342.00	337.00		12.19		3000	5300
3	JEFFERSON	JFN	VOR/DME	L	267.00	262.00	23.65	23.65		3000	5300

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

REMARKS:
CLEVELAND (FAC 1) AND CHARDON (FAC 2) USED TO ESTABLISH FIX COORDINATES
DME FACILITY COORDINATES: 413329.92N/0812945.13W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 24	1, 2, 3		KCGF	CLEVELAND	OH (US)
IAP	RNAV (GPS) RWY 24			KCGF	CLEVELAND	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. DELETED FAC4
2. ADDED FAC1, FAC2, FAC3 DIST FROM FAC 13.42NM, 12.19NM, 23.65NM
3. UPDATED FIX USE

DEVELOPED BY: **DATE:** 12/06/2011 **OFFICE:** AJV-352 **NAME:** TERENCE SHARP (DAVID TEFFETELLER)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: CLE, CGF
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HIGUL **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 412918.05N/0813620.54W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 24			KCGF	CLEVELAND	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 05/31/2012

DEVELOPED BY: **DATE:** 12/07/2011 **OFFICE:** AJV-351 **NAME:** TERENCE SHARP (DAVID TEFFETELLER)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: CAK, CLE
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: IMUSY **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 413922.16N/0812039.20W **TYPE:** WP, INT, 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	CLEVELAND	I-CGF	LOC/DME		057.48	049.48	9.00	8.99		3000	5300
2	CHARDON	CXR	VOR/DME	H	320.75	315.75		11.67		3000	5300

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

REMARKS:
CLEVELAND (FAC 1) USED TO ESTABLISH FIX COORDINATES
DME FACILITY COORDINATES: 413329.92N/0812945.13W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 24	1, 2		KCGF	CLEVELAND	OH (US)
IAP	RNAV (GPS) RWY 24			KCGF	CLEVELAND	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. DELETED FAC3
2. ADDED FAC1 AND FAC2 DIST FROM FAC 8.99NM AND 11.67NM
3. UPDATED FIX USE

DEVELOPED BY: **DATE:** 12/06/2011 **OFFICE:** AJV-351 **NAME:** TERENCE SHARP (DAVID TEFFETELLER)

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: CLE / CGF
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: KROOK **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 413658.72N/0812423.46W **TYPE:** WP, INT, 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	CLEVELAND	I-CGF	LOC/DME		057.48	049.48	5.32	5.31	32271	2300	5300
2	CHARDON	CXR	VOR/DME	H	303.62	298.62		12.47		2300	5300

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

REMARKS:
DME FACILITY COORDINATES: 413329.92N/0812945.13W
.54A LNAV-VNAV FORMULA USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 24	1, 2		KCGF	CLEVELAND	OH (US)
IAP	RNAV (GPS) RWY 06			KCGF	CLEVELAND	OH (US)
IAP	RNAV (GPS) RWY 24			KCGF	CLEVELAND	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. DELETED FAC3
2. REVISED FIX REMARKS
3. UPDATED FIX USE
4. FIX MOVED 316.54FT NORTHEAST

DEVELOPED BY: **DATE:** 12/06/2011 **OFFICE:** AJV-352 **NAME:** TERENCE SHARP (DAVID TEFFETELLER)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: CLE / CGF
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ZUPKO **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 412050.84N/0812645.71W **TYPE:** WP

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

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	N		WP	015.61	195.61	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (39-001493)	412632.39N/0812928.12W	1640	5D

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 24			KCGF	CLEVELAND	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 05/31/2012

DEVELOPED BY: **DATE:** 12/07/2011 **OFFICE:** AJV-351 **NAME:** TERENCE SHARP (DAVID TEFFETELLER)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: CAK, CLE
OTHER:

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: WEIDS **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 414316.32N/0810645.25W **TYPE:** WP, INT, 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	YOUNGSTOWN/WARREN	YNG	VORTAC	L	325.00	320.00	30.61	30.61		5000	17500
2	JEFFERSON	JFN	VOR/DME	L	267.01	262.01		16.54		5000	17500

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

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	200	TOWER (39-003969)	413457.39N/0810804.33W	1671	2C

HOLDING RESTRICTIONS:
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 5000.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V10					(US)
IAP	ILS OR LOC RWY 24			KCGF	CLEVELAND	OH (US)
IAP	RNAV (GPS) RWY 24			KCGF	CLEVELAND	OH (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 07/02/2009

REASON FOR REVISION:
ADD WP/DME TO FIX MAKE-UP.
FAC 1: ADDED DME, CHANGED MRA FROM 2500 TO 5000.
FAC 2: CHANGED MRA FROM 2500 TO 5000.
RAISED AIR/GROUND COMM ALTITUDE FROM 2500 TO 3000 (MATCH AIRWAY MEA).
ADDED HOLDING TO AUTHORIZED USE.
ADDED UNPLANNED HOLDING STATEMENT/OBSTACLE AND CHANGED HOLDING FROM APPROVED TO RESTRICTED.
UPDATE FIX USE.
UPDATE FIX COORDINATES, FIX MOVED 10' E (PLACED ON AIRWAY).

THIS IS AN UPDATED COPY OF THE FORM ORIGINALLY DEVELOPED ON 11/20/08:
CHANGED FAC 1/2 MRA FROM 3000 TO 5000. (FLIGHT CHECK VALUE).
REMOVED FAC 3. (NEW CRITERIA)
CHANGED UNPLANNED HOLDING FROM 3000 TO 5000.

DEVELOPED BY: **DATE:** 04/27/2009 **OFFICE:** AVN-120 **NAME:** THOMAS KIRKPATRICK

APPROVED BY: **DATE:** 05/12/2009 **OFFICE:** AVN-120 **NAME:** SUE CRUMB

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: CLE APP CON
OTHER:

QUALITY 6 CHECKED