Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 08/11/2011	Task #: 2009111820267302001	Request #: 20091118202673
Procedure: VOR/DME RWY 33 AMDT 1		Airport ID: KORH	**Airport:** WORCESTER REGIONAL		Reimbursable #:
City: WORCESTER	**ST:** MA	**GPS #:**		Estimated Chart Date: 06/28/2012	FICO #: 1080312
Fac ID: GDM	**Fac. Type:** VDME	**Specialist:** ERIC VALDEZ(Contractor)			

Procedure Review

P2

	Rec'd	Rel'd	Full Name	Comments
Lead:	08/02/2011	04/25/2012	MARLON ROBINSON	
QA:	04/25/2012	04/25/2012	SCOTT BEARD	
Liaison:	04/25/2012		Alfonso	RESUBMIT 8260-5; 8260-9; 8260-2 LAWRN 4/25/12

Procedure Comments:

Remark Type: INFORMATION

pkg 1 of 1

WORCESTER, MA WORCESTER REGIONAL (KORH) VOR/DME RWY 33, AMDT 1 ENROUTE-NO FC: 5.15.12 PUB: 6.28.12

ATTACHED FORMS: 8260-5; 8260-10; 8260-9; 8260-2(S): GRAYM-INT, REV 8; LAWRN-INT, REV 4; PUTNAM (PUT) VDME, REV 14; WUTUG-INT, ORIG; (INFO ONLY) GARDNER (GDM) VDME, REV 17.

CONTACT: DON SMITH, AJV-352 LEAD, 405.954.1036:

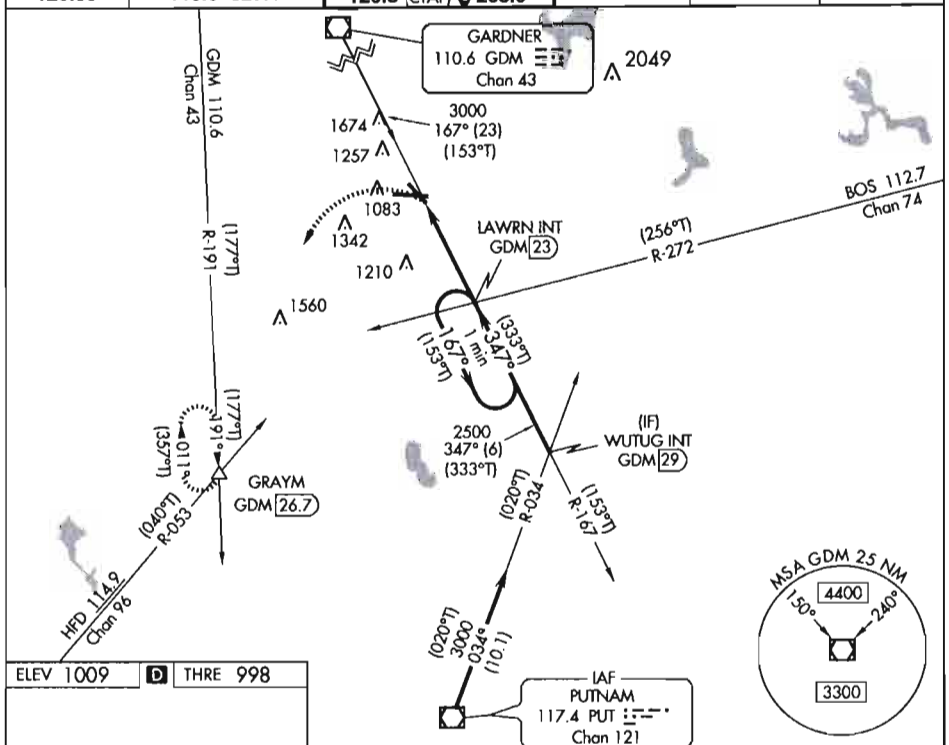
VOR/DME RWY 33
WORCESTER RGNL (ORH)

VOR/DME GDM	APP CRS	Rwy Idg	5000
110.6 Chan 43	347°	THRE	998
		Apt Elev	1009

When VGSI inop, straight-in/Circling Rwy 33 procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received, use Bedford altimeter setting and increase all MDA 200 feet; increase S-33 Cat C/D visibility ½ mile and Circling Cat C visibility ¾ mile.

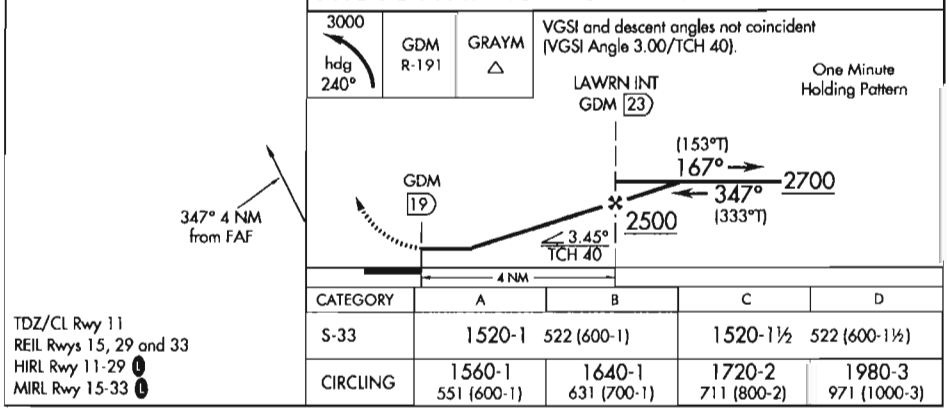
MISSED APPROACH: Climbing left turn to 3000 on heading 240° and GDM VOR/DME R-191 to GRAYM INT/GDM 26.7 DME and hold.

ATIS	BRADLEY APP CON	WORCESTER TOWER ★	GND CON	CLNC DEL	UNICOM
126.55	119.0 327.1	120.5 (CTAF) L 263.0	123.85	128.65	122.95



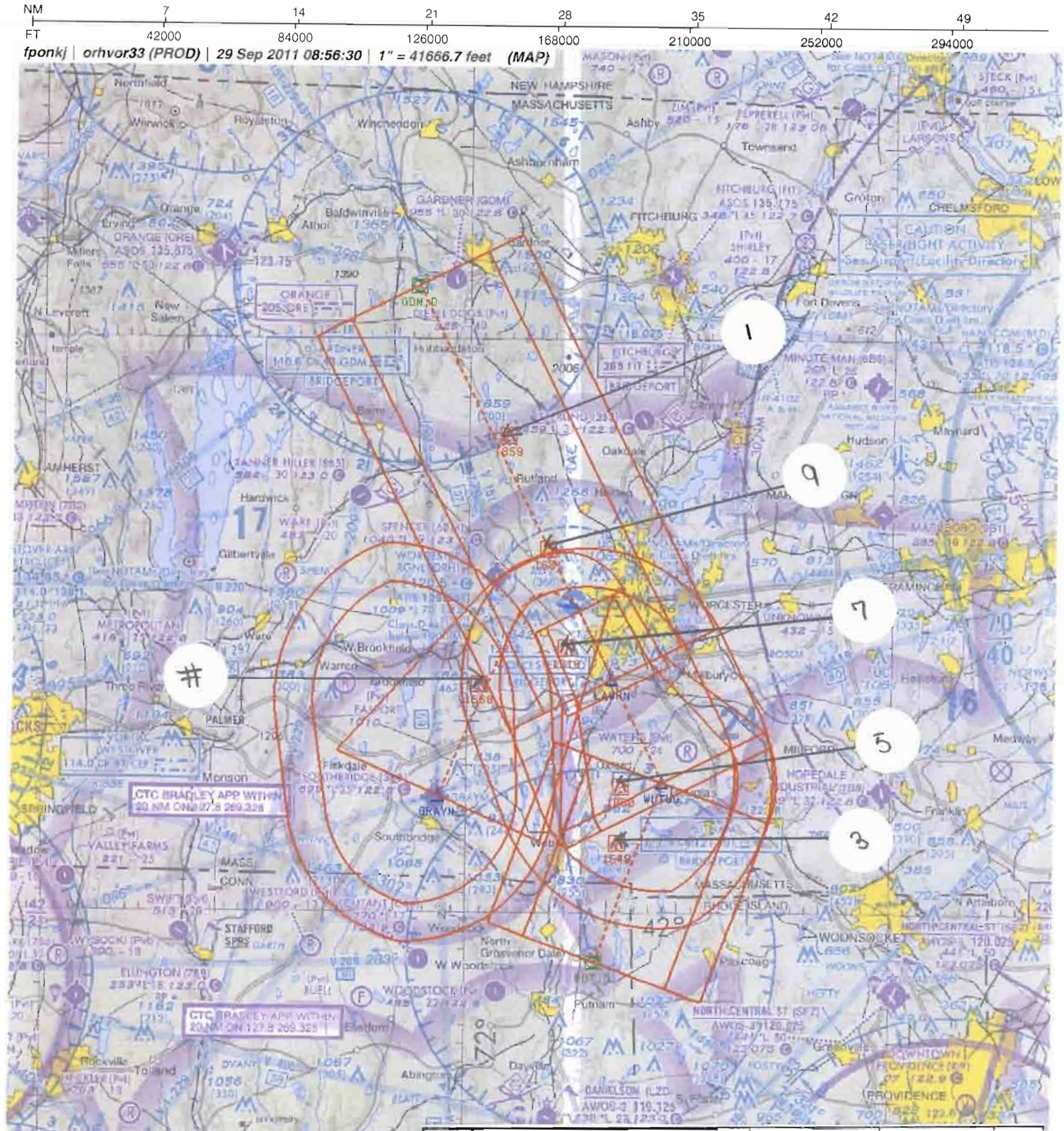
ELEV 1009 D THRE 998

PROTOTYPE-NOT FOR NAVIGATION

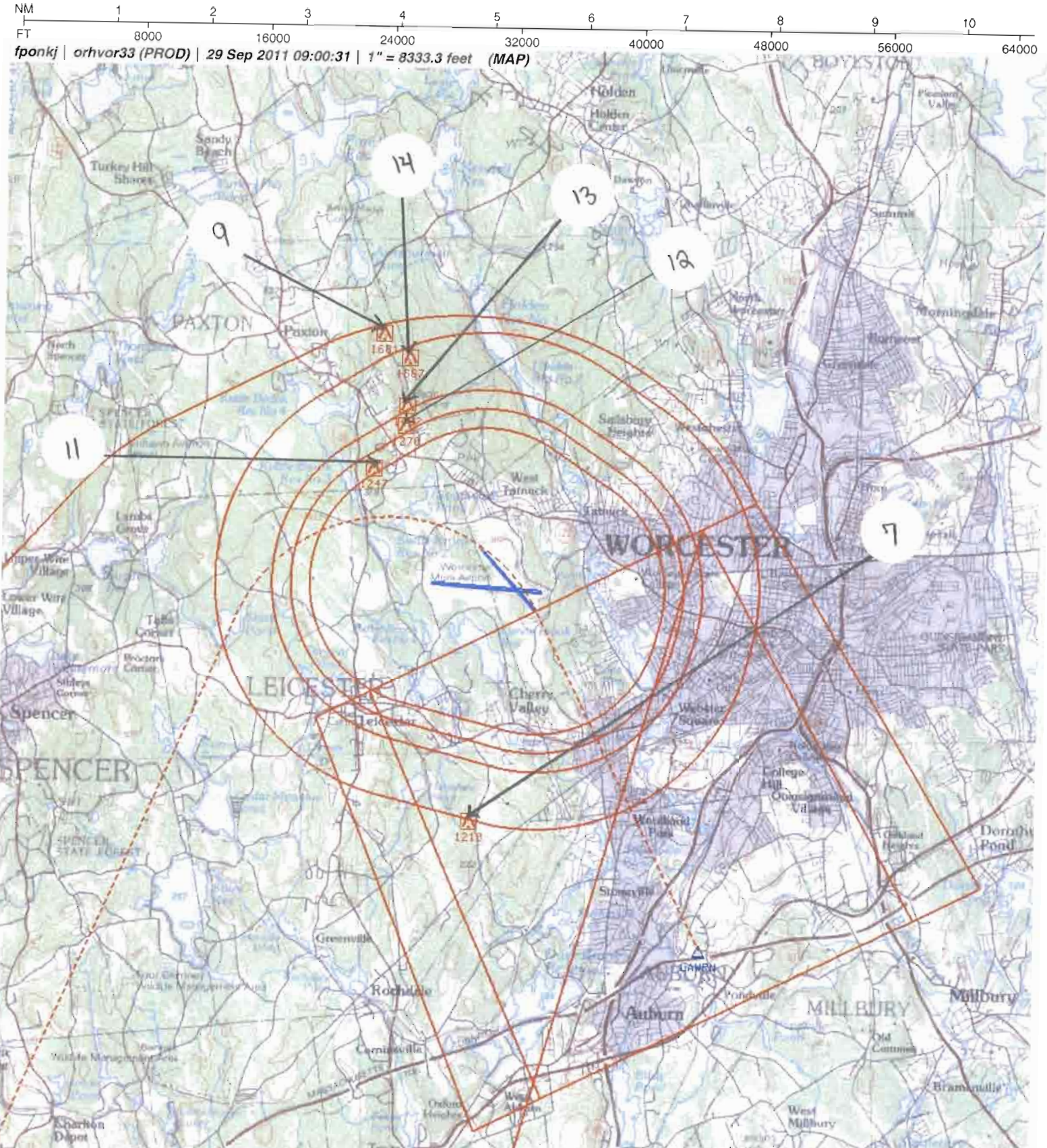


CATEGORY	A	B	C	D
S-33	1520-1	522 (600-1)	1520-1½	522 (600-1½)
CIRCLING	1560-1 551 (600-1)	1640-1 631 (700-1)	1720-2 711 (800-2)	1980-3 971 (1000-3)

TDZ/CL Rwy 11
REIL Rwys 15, 29 and 33
HIRL Rwy 11-29 L
MIRL Rwy 15-33 L



Airport ID:	KORH	FM 9			
Apt Name:	WORCESTER RGNL	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORCESTER	1	FEEDER	TOWER	1859
State:	MA	3	INITIAL	TOWER	1549
Scale:	1:500,000	5	INTERMEDIATE	AAO	1080
ProcID:	VOR/DME RWY 33	7	FINAL	TOWER	1210
Amdt.	1	3	HOLD-IN-LIEU	TOWER	1549
		9	MISSED	TOWER	1681
		#	HOLDING	TOWER	1560



Airport ID:	KORH	FM 9			
Apt Name:	WORCESTER RGNL	No	SEGMENT	OBSTRUCTION	ELEV
City:	WORCESTER	7	FINAL	TOWER	1210
State:	MA	9	MISSED	TOWER	1681
Scale:	1:100,000	11	CIRCLE A	TREE	1247
ProcID:	VOR/DME RWY 33	12	CIRCLE B	TREE	1270
Amdt.	1	13	CIRCLE C	POLE	1402
		14	CIRCLE D	TOWER	1667

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
VOR/DME 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
GDM VOR/DME	LAWRN/GDM 23.00 DME	167.26 / 23.00	3000
PUT VOR/DME (IAF)	WUTUG/GDM 29.00 DME (NOPT)	034.17 / 10.12	3000
WUTUG/GDM 29.00 DME (IF)	LAWRN/GDM 23.00 DME	347.26 / 6.00 (GDM R-167)	2500

MISSED APPROACH

MAP: GDM 19.01 DME FIX

CLIMBING LEFT TURN TO 3000 ON HEADING 240 AND GDM VOR/DME R-191 TO GRAYM INT/GDM 26.70 DME AND HOLD.

ADDITIONAL FLIGHT DATA:

HOLD N, RT, 191.44 INBOUND.
CHART FAS OBST: 1210 TOWER 421327N/0715252W
LAWRN TO RW33: 3.45/40.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. HOLD S LAWRN, LT, 347.26 INBOUND, 2700 FT. IN LIEU OF PT (IAF)
3. FAC 347.26 FAF LAWRN/GDM 23.00 DME DIST FAF TO MAP ____ THLD 3.99
4. MIN. ALT LAWRN 2500
8. MSA FROM: GDM VOR/DME 330-060 4400, 060-330 3300

MAG VAR: EPOCH YEAR:

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-33	1520	1	522	1520	1	522	1520	1 1/2	522	1520	1 1/2	522			
CIRCLING	1560	1	551	1640	1	631	1720	2	711	1980	3	971			

NOTES:

CHART NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 33 PROCEDURE NA AT NIGHT.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BEDFORD ALTIMETER SETTING AND INCREASE (SEE FORM 8260-10)

@ CAT D 1000-3
@ NA WHEN LOCAL WEATHER NOT AVAILABLE

QUALITY 1 CHECKED

CITY AND STATE	ELEVATION: 1009 THRE: 998 / AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP
WORCESTER, MA	WORCESTER RGNL	GDM	VOR/DME RWY 33, AMDT 1	AMDT ORIG-D
				DATE 08/30/2007

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]	[X]	[X] ZBW, BDL ATCT, ORH ATCT, AIRPORT MANAGER.

FLIGHT CHECKED BY

NAME:	FIFO	DATE:
MARTHA BURGOON PARISH	FIOG	03/21/2012

DEVELOPED BY

NAME:	FIFO	DATE:
DONALD E. SMITH (NICHOLAS K. JACKSON)	AJV-352	09/14/2011

APPROVED BY

NAME:	FIFO	DATE:
DARRYEL ADAMS MANAGER	AJV-352	

CHANGES:

1. GDM FEEDER ALTITUDE LOWERED FROM 3600 TO 3000.
2. SQUEL FIX NAME REMOVED, WUTUG FIX NAME ADDED.
3. DIST FAF TO THLD CHANGED FROM 3.98 TO 3.99.
4. S-33 HAT CHANGED FROM 523 TO HATH 522.
5. S-33 CAT D VISIBILITY DECREASED FROM 1 3/4 MILE TO 1 1/2 MILE.
6. CIRCLING CAT A MDA/HAT RAISED FROM 1540/531 TO 1560/551. CAT D MDA FROM 1960 TO 1980.
7. ADDED "VISIBILITY REDUCTION BY HELICOPTERS NA" NOTE.
8. ADDED BACK-UP ALTIMETER ADJUSTMENTS VIA NOTE.
9. CHANGED TCH VALUE FROM 38 TO 40.

REASONS:

1, 6. NEW CONTROLLING OBSTACLE .
2. IAW FAA NOTICE DTD 10/30/2011.
3. MAP CHANGED TO THLD AND RUNWAY COORDINATES UPDATED PER AVNIS.
4. THRE USED IN LIEU OF TDZE.
5. IAW 8260.3B CHNG 20 TABLE 3-8.
7. IAW 8260.19D PARA 854(I)3.
8. IAW 8260.19D PARA 854(L)1A.
9. TO COINCIDE WITH VGSI TCH VALUE.

04/24/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 09/14/11.
1. LAWRN FIX CHANGED FROM INT TO DME.

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

VOR/DME 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 aiport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

NOTES; (CONT.):
ALL MDA 200 FEET; INCREASE S-33 CAT C/D VISIBILITY 1/2 MILE AND CIRCLING CAT C VISIBILITY 3/4 MILE.

QUALITY 5 CHECKED

CITY AND STATE		FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	
WORCESTER, MA	**ELEVATION: 1009** **THRE: 998** AIRPORT NAME: **WORCESTER RGNL**	**GDM**	**VOR/DME RWY 33, AMDT 1**	SUP: AMDT: **ORIG-D** DATED: **08/30/2007**

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:

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	GDM VOR/DME	LAWRN/GDM 23.00	1. TOWER (25-000633)	422432.10N/0715703.90W	1859 (2C)	1000	AT141	3000
		DME	2. TERRAIN	421812.00N/0715351.00W	1398 (1400)		AS1500	2900
INITIAL	PUT VOR/DME	WUTUG/GDM 29.00	3. TOWER (25-000622)	420313.00N/0714904.00W	1549 (5D)	1000	AT451	3000
		DME	4. TERRAIN	420254.00N/0714851.00W	896 (900)		AS1500	2400
INTERMEDIATE	WUTUG/GDM 29.00	LAWRN/GDM 23.00	5. AAO	420612.00N/0714851.00W	1080 (4E)	500	AC98 AT822	2500
	DME	DME	6. TERRAIN	420612.00N/0714851.00W	880 (900)		AS1500	2400
FINAL	LAWRN/GDM 23.00	GDM 19.01 DME	7. TOWER (25-000163)	421327.00N/0715252.00W	1210 (5D)	250	AC50	1520
	DME	FIX						
2. HOLD-IN-LIEU-OF-PT	LAWRN	P-6	3. TOWER (25-000622)	420313.00N/0714904.00W	1549 (5D)	1000		2600
			8. TERRAIN	421630.00N/0715448.00W	1155 (1200)		AS1500	2700
3. MISSED APPROACH MAP:	GDM 19.01 DME	GRAYM INT/GDM				ASC		3000
	FIX	26.70 DME	9. TWR (KORHT1745)	421833.99N/0715411.29W	1681 (1A)	1000		2700
ELEV:	1270		10. TERRAIN	421812.00N/0715351.00W	1398 (1400)		AS1500	2900

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL						
CATEGORY A	1.3 NM	350	551	11. TREE (KORHT1042)	421709.35N/0715418.21W	1247 (1A)	300		1560
CATEGORY B	1.5 NM	450	631	12. TREE (KORHT1173)	421735.87N/0715351.96W	1270 (1A)	300	XP70	1640
CATEGORY C	1.7 NM	450	711	13. POLE (25-021974)	421748.58N/0715350.74W	1402 (1B)	300		1720
CATEGORY D	2.3 NM	550	971	14. TWR (KORHT1751)	421818.77N/0715349.32W	1667 (1A)	300		1980
CATEGORY E	4.5 NM	550							

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

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
330-060	AAO	007/ 19.0	3369 (6C)	4400					
060-330	AAO	128/ 08.3	2215 (4E)	3300					

FINAL QUALITY CHECKED

CITY AND STATE	ELEVATION: 1009 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
WORCESTER, MA	WORCESTER RGNL	GDM	VOR/DME RWY 33, AMDT 1	ANE

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
ORH TOWER BDL APP CON SATISFACTORY ON:	NWS OTHER: ASOS FAA A/C	SOURCE: KORH / KBED DISTANCE: 0 / 28.79 HOURS REMOTE OPERATION: 24 / 24
X VHF X UHF HF	LOCATION: KORH	ADJUSTMENT: 0 / 0

4. MONITOR STATUS	PRIMARY NAVAID: GDM	
	MONITOR POINT: AOCC	
	HRS OPTN: CAT 1	24
	CAT 3	

5. APPROACH & RUNWAY LIGHTING		ALS
		(S) SALS
	X	MALSR 11 (PCL)
	X	HIRL 11 (PCL), 29 (PCL)
	X	MIRL 33 (PCL), 15 (PCL)
	X	REIL 33, 15, 29 (PCL)
	X	TDZ 11 (PCL)
	X	C/L 11 (PCL), 29 (PCL)
	X	OTHER (SPECIFY) PAPI-4L 33, 15, 29

6. RUNWAY MARKINGS	BASIC	BSC-F 15
	ALL WEATHER	PIR-F 11, 29
	INSTRUMENT	NPI-F 33
7. RUNWAY VISUAL RANGE	APPROACH	11, 29
	MIDFIELD	
	ROLL OUT	11, 29

8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 40.0

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

10. WAIVERS: NONE

PART D - PREPARED BY: DONALD E. SMITH (NICHOLAS K. JACKSON)	DATE: 09/14/2011
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

VDP NOT ESTABLISHED - OBSTACLES PENETRATE VISUAL SURFACES.

PARA 251, 20:1 PENETRATION.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

VGSI DATA: 3.00/40

KORH AND KBED ARE ON SERVICE A

RASS PRESSURE PATTERNS SAME
KORH 1009.0, KBED 132.6
RA = 188.9.
SEE ATTACHED AIRSPACE LETTER.

80' VEGETATION UITILIZED PER PREVIOUS PROCEDURE

FPT NOTIFIED OF 20:1 PENETRATIONS.

TERPS, VOLUME 1 "VISUAL PORTION OF FINAL" PENETRATIONS:

20:1
R33 1030 TREE (KORHT0670) 421541.40N-0715200.48W (31.21)
R33 1009 TREE (KORHT0669) 421540.93N-0715159.79W (6.71)

R33 1018 TREE (KORHT0666) 421539.86N-0715159.06W (9.86)

XP: TO RETAIN CURRENT MINIMA

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GRAYM **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 420604.27N/0720153.49W **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	BOSTON	BOS	VOR/DME	H	268.04	252.04	48.92	48.92		4000	17500
2	GARDNER	GDM	VOR/DME	L	191.44	177.44	26.70	26.70		3000	17500
3	HARTFORD	HFD	VOR/DME	L	052.79	039.79	36.00	36.00		3000	17500
4	NORWICH	ORW	VOR/DME	L	011.48	357.48	32.70	32.70		3000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
BOS	VOR/DME	R-268	49	4000	14600

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

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	GDM	VOR/DME	191.44	191.44	R	1		3000	5000	6	7

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (25-000212)	421128.99N/0715857.68W	1560	1A

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
BOSTON (FAC 1) AND GARDNER (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V1	2, 3				(US)
EN ROUTE	V14	1, 2				(US)
EN ROUTE	V419	1, 2				(US)
IAP	RNAV (GPS) RWY 29			KORH	WORCESTER	MA (US)
IAP	RNAV (GPS) RWY 33			KORH	WORCESTER	MA (US)
IAP	VOR/DME RWY 33	2, 3	1	KORH	WORCESTER	MA (US)
STAR	DREEM (RNAV)			KBED	BEDFORD	MA (US)
STAR	GRAYM	2, 3, 4		KBED	BEDFORD	MA (US)
STAR	DREEM (RNAV)			KBVY	BEVERLY	MA (US)
STAR	GRAYM	2, 3, 4		KBVY	BEVERLY	MA (US)
STAR	GRAYM	2, 3, 4		KFIT	FITCHBURG	MA (US)
STAR	DREEM (RNAV)			KLWM	LAWRENCE	MA (US)
STAR	GRAYM	2, 3, 4		KLWM	LAWRENCE	MA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
REMOVED FAC 4 (BRADLEY VORTAC) DUE TO FUTURE DECOMMINSSIONING OF FACILITY
UPDATED FIX USE

DEVELOPED BY: **DATE:** 09/13/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (NICHOLAS JACKSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZBW
ATC FACILITY: BDL APP CON, ORH ATCT, BOS APP CON
OTHER:

QUALITY 5 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: LAWRN **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 421211.70N/0714934.07W **TYPE:** 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	GARDNER	GDM	VOR/DME	L	167.26	153.26	23.00	23.00		2500	17500
2	BOSTON	BOS	VOR/DME	H	272.34	256.34		38.39		3500	17500

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

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	S	GDM	VORTAC	167.26	347.26	L	1	4	2700	4000	6	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (25-000622)	420313.00N/0714904.00W	1549	5D
1	310	COMMUNICATION TWR (KORHT1745)	421833.99N/0715411.29W	1681	1A

REASON FOR NONSTANDARD HOLDING:
PAT 1 ATC REQUEST

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 11	KORH	WORCESTER	MA (US)

REMARKS:
GARDNER (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 11	1, 2	1	KORH	WORCESTER	MA (US)
IAP	VOR/DME RWY 33	1	1	KORH	WORCESTER	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 06/28/2012

REASON FOR REVISION:
UPDATED FIX USE
DELETED FAC 2 FROM FIX USE VOR/DME RWY 33.
ADDED PRECIPITOUS TERRAIN REMARK
MOVED HOLDING LIMITED REMARK TO RESTRICTIONS
ADDED DIST FROM FACS
ADDED CIH PATTERN

DEVELOPED BY: **DATE:** 09/13/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (NICHOLAS JACKSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZBW
ATC FACILITY: BDL
OTHER: ORH TOWER

QUALITY CHECKED 1

RADIO FIX AND HOLDING DATA RECORD

NAME: PUTNAM VOR/DME **STATE:** CT **COUNTRY:** US

LATITUDE/LONGITUDE: 415719.66N/0715038.74W **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	PUTNAM	PUT	VOR/DME	H							45000

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

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	PUT	VOR/DME	005.00	185.00	R	1		2600	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	200	TOWER (25-000622)	420313.00N/0714904.00W	1549	5D
1	200	TOWER (25-000622)	420313.00N/0714904.00W	1549	5D

HOLDING RESTRICTIONS:
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 2600.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BRADLEY			KBDL	WINDSOR LOCKS	CT (US)
DP	BETTE			KJFK	NEW YORK	NY (US)
DP	GREKI			KJFK	NEW YORK	NY (US)
DP	HAPIE			KJFK	NEW YORK	NY (US)
DP	MERIT			KJFK	NEW YORK	NY (US)
DP	SKORR			KJFK	NEW YORK	NY (US)
DP	PROVIDENCE			KPVD	PROVIDENCE	RI (US)
EN ROUTE	J42					(US)
EN ROUTE	J581					(US)
EN ROUTE	J68					(US)
EN ROUTE	V146					(US)
EN ROUTE	V151					(US)
EN ROUTE	V205					(US)
IAP	VOR-A		1	KLZD	DANIELSON	CT (US)
IAP	LDA RWY 2			KHFD	HARTFORD	CT (US)
IAP	VOR OR GPS-A			KHFD	HARTFORD	CT (US)
IAP	LOC RWY 27			KIJD	WILLIMANTIC	CT (US)
IAP	RNAV (GPS) RWY 27			KIJD	WILLIMANTIC	CT (US)
IAP	ILS OR LOC RWY 24			KBDL	WINDSOR LOCKS	CT (US)
IAP	ILS OR LOC RWY 6			KBDL	WINDSOR LOCKS	CT (US)
IAP	ILS RWY 24 (CAT II)			KBDL	WINDSOR LOCKS	CT (US)
IAP	ILS RWY 6 (CAT II)			KBDL	WINDSOR LOCKS	CT (US)
IAP	ILS RWY 6 (CAT III)			KBDL	WINDSOR LOCKS	CT (US)
IAP	GPS-A			K1B6	HOPEDALE	MA (US)
IAP	VOR/DME-B			K3B0	SOUTHBRIDGE	MA (US)
IAP	HI-ILS OR LOC RWY 20			KBAF	WESTFIELD/SPRINGFIELD	MA (US)
IAP	HI-TACAN RWY 20			KBAF	WESTFIELD/SPRINGFIELD	MA (US)
IAP	ILS OR LOC RWY 29			KORH	WORCESTER	MA (US)
IAP	RNAV (GPS) RWY 33			KORH	WORCESTER	MA (US)
IAP	VOR/DME RWY 33			KORH	WORCESTER	MA (US)
IAP	LOC RWY 5			KSFZ	PAWTUCKET	RI (US)
IAP	VOR OR GPS-A			KSFZ	PAWTUCKET	RI (US)
IAP	VOR OR GPS-B		1	KSFZ	PAWTUCKET	RI (US)
IAP	ILS OR LOC RWY 23			KPVD	PROVIDENCE	RI (US)
IAP	ILS OR LOC/DME RWY 34			KPVD	PROVIDENCE	RI (US)
IAP	VOR RWY 5			KPVD	PROVIDENCE	RI (US)
STAR	SCUPP			KBOS	BOSTON	MA (US)
STAR	WOONS			KBOS	BOSTON	MA (US)
STAR	WOONS			K1B9	MANSFIELD	MA (US)
STAR	WOONS			KGHG	MARSHFIELD	MA (US)
STAR	WOONS			KOWD	NORWOOD	MA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14 **DATE OF REVISION:** 04/05/2012

QUALITY 5 CHECKED

REASON FOR REVISION:
UPDATED FIX USE
UPDATED FACILITY COORDINATES

DEVELOPED BY:	**DATE:** 11/16/2011	**OFFICE:** AJV-352	**NAME:** DONALD SMITH (NICHOLAS JACKSON)
APPROVED BY:	**DATE:**	**OFFICE:** AJV-352	**NAME:** DARRYEL ADAMS
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZBW
ATC FACILITY: BDL/PVD APP CON
OTHER:

QUALITY 5 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WUTUG **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 420649.59N/0714557.58W **TYPE:** INT, DME

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

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	GARDNER	GDM	VOR/DME	L	167.26	153.26	29.00	29.00		3000	17500
2	PUTNAM	PUT	VOR/DME	H	034.17	020.17		10.12		3000	17500

REMARKS:
GARDNER VOR/DME (FAC 1) AND PUTNAM VOR/DME (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	VOR/DME RWY 33	1, 2		KORH	WORCESTER	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 04/05/2012

DEVELOPED BY: **DATE:** 09/13/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (NICHOLAS JACKSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZBW
ATC FACILITY: BDL ATCT
OTHER:

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: GARDNER VOR/DME **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423245.42N/0720329.48W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

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	GARDNER	GDM	VOR/DME	L							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	E	GDM	VOR/DME	111.96	291.96	R	1		3500	8000	4	8
2	NW	GDM	VOR/DME	298.00	118.00	L	1-1 1/2		4000	17500	4	16
3	W	GDM	VOR/DME	276.81	096.81	R	1		3000	6000	4	5
4	NW	GDM	VOR/DME	293.78	113.78	L	1-1 1/2		7000	29000	8	22
5	NW		WP	295.37	115.37	L		10	13000	18000	15	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	422930.00N/0715324.00W	2143	4E
2	200	AAO	423333.00N/0720909.00W	1595	4E
3	200	AAO	423333.00N/0720909.00W	1595	4E
3	310	AAO	422921.00N/0715312.00W	2215	4E
4	230	AAO	423333.00N/0720909.00W	1595	4E
5	265	AAO	422921.00N/0715312.00W	2215	4E

REASON FOR NONSTANDARD HOLDING:
PAT 2 ATC REQUEST
PAT 4 ATC REQUEST
PAT 5 ATC REQUEST

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
3	VOR-A	KGDM	GARDNER	MA (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE.
PAT 5-ATC REQUESTED 10NM LEG LENGTH.
CHART PAT 2 ENROUTE LOW.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BRADLEY			KBDL	WINDSOR LOCKS	CT (US)
DP	TAKEOFF MINIMUMS			KORE	ORANGE	MA (US)
DP	TAKEOFF MINIMUMS			KAFN	JAFFREY	NH (US)
DP	MANCHESTER			KMHT	MANCHESTER	NH (US)
DP	PEASE			KPSM	PORTSMOUTH	NH (US)
DP	TANKER			KPSM	PORTSMOUTH	NH (US)
EN ROUTE	V106					(US)
EN ROUTE	V14		2			(US)
EN ROUTE	V151					(US)
EN ROUTE	V2		2			(US)
EN ROUTE	V229					(US)
EN ROUTE	V39					(US)
EN ROUTE	V431					(US)
EN ROUTE	ZBW		2, 4			MA (US)
IAP	ILS OR LOC RWY 29			KBED	BEDFORD	MA (US)
IAP	NDB RWY 29			KBED	BEDFORD	MA (US)
IAP	ILS OR LOC RWY 27			KBOS	BOSTON	MA (US)
IAP	ILS OR LOC/DME RWY 15R			KBOS	BOSTON	MA (US)
IAP	RNAV (GPS) RWY 15R			KBOS	BOSTON	MA (US)
IAP	VOR/DME RWY 15R			KBOS	BOSTON	MA (US)
IAP	NDB RWY 20			KFIT	FITCHBURG	MA (US)
IAP	NDB-A			KFIT	FITCHBURG	MA (US)
IAP	RNAV (GPS) RWY 14			KFIT	FITCHBURG	MA (US)
IAP	RNAV (GPS) RWY 20			KFIT	FITCHBURG	MA (US)
IAP	VOR-A		3	KGDM	GARDNER	MA (US)
IAP	VOR OR GPS-A			K0B5	MONTAGUE	MA (US)
IAP	LOC RWY 35			KOWD	NORWOOD	MA (US)
IAP	NDB RWY 1		1	KORE	ORANGE	MA (US)
IAP	NDB RWY 32		1	KORE	ORANGE	MA (US)
IAP	VOR-A			KORE	ORANGE	MA (US)
IAP	VOR/DME-B			K3B0	SOUTHBRIDGE	MA (US)

QUALITY 5 CHECKED

IAP	RNAV (GPS) RWY 21		K6B6	STOW	MA (US)
IAP	VOR/DME RWY 21		K6B6	STOW	MA (US)
IAP	ILS OR LOC RWY 20		KBAF	WESTFIELD/SPRINGFIELD	MA (US)
IAP	ILS OR LOC RWY 11		KORH	WORCESTER	MA (US)
IAP	ILS OR LOC RWY 29		KORH	WORCESTER	MA (US)
IAP	RNAV (GPS) RWY 33		KORH	WORCESTER	MA (US)
IAP	VOR/DME RWY 33		KORH	WORCESTER	MA (US)
IAP	VOR OR GPS-A		KAFN	JAFFREY	NH (US)
IAP	ILS OR LOC RWY 2		KEEN	KEENE	NH (US)
IAP	RNAV (GPS) RWY 2		KEEN	KEENE	NH (US)
IAP	VOR RWY 2		KEEN	KEENE	NH (US)
IAP	ILS OR LOC RWY 6		KMHT	MANCHESTER	NH (US)
IAP	ILS OR LOC RWY 6		KMHT	MANCHESTER	NH (US)
STAR	GRAYM		KBED	BEDFORD	MA (US)
STAR	GRAYM		KBVY	BEVERLY	MA (US)
STAR	GARDNER	4	KBOS	BOSTON	MA (US)
STAR	QUABN (RNAV)	5	KBOS	BOSTON	MA (US)
STAR	GRAYM		KFIT	FITCHBURG	MA (US)
STAR	GRAYM		KLWM	LAWRENCE	MA (US)
STAR	POPPP		KMHT	MANCHESTER	NH (US)
STAR	PONEE		KISP	NEW YORK	NY (US)
STAR	PONEE		KFOK	WESTHAMPTON BEACH	NY (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 17 **DATE OF REVISION:** 12/15/2011

REASON FOR REVISION:
1. ADDED PAT 5.
2. ADDED REMARK, PAT 5-ATC REQUESTED 10NM LEG LENGTH.
3. CHANGED PAT 4 MIN ALTITUDE/TEMPLATE FROM 10000/9 TO 7000/8.
4. CHANGED PAT 4 CRS INBOUND FROM 114.00 TO 113.78.
5. ADDED REMARK, CHART PAT 2 ENROUTE LOW.
6. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 06/27/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (DAVID SAUER)

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZBW
ATC FACILITY: BOS APP CON
OTHER:

5

CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **WORCESTER** STATE: **MA**

AIRPORT NAME: **WORCESTER RGNL** ID: **KORH**

PROCEDURE: **VOR/DME RWY 33** AMDT: **1**

DOCKET # :
(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 **2.32**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **3.67**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **333.26**
4. High Terrain in **FINAL** segment containing 1000' point **1001**
5. Distance from **THLD** to 1500' point **3.99**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **FINAL** segment at 1500' point **3.50**
7. True Course of **FINAL** segment containing 1500' point **333.26**
8. High Terrain in **FINAL** segment containing 1500' point **1001**
9. Threshold Coordinates (if straight-in) ... **421545.69N** / **0715158.43W**
10. ARP Coordinates ..... **421601.70N** / **0715232.20W**
11. Runway Approach End and distance furthest from ARP.....RWY **11**
    Distance **.67** NM
12. FAF Coordinates ..... **421211.70N** / **0714934.07W**
    (Click to Select)

REMARKS: Approach/Drawing attached.

RADIO FIX AND HOLDING DATA RECORD

NAME: SQUEL **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 420743.29N/0714633.62W **TYPE:** INT, DME

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

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	GARDNER	GDM	VORTAC	L	167.26	153.26	28.00			3000	17500
2	PUTNAM	PUT	VOR/DME	H	030.31	016.31	10.83			3000	17500

REMARKS:
MAG VAR: GDM 14W, PUT 14W.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	WORCESTER REGIONAL - VOR/DME RWY 33.			KORH	WORCESTER	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/28/1995

DEVELOPED BY: **DATE:** **OFFICE:** **NAME:**

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: BOS
ARTCC: ZBW
ATC FACILITY: BDL ATCT
OTHER:

CANCELLED
BY Nicholas R. Jackson
DATE 11/16/2011

QUALITY 5 CHECKED