Flight Procedure Tracking Form

Action:	Task Type:	Date Open:	Task #:	Request #:
FLIGHT CHECK	IAP	05/13/2010	2008061811271501009	20080618112715

Procedure: RNAV (GPS) RWY 32 ORIG

Airport ID: KASH **Airport:** BOIRE FLD **Reimbursable #:**

City: NASHUA **ST:** NH **GPS #:** **Estimated Chart Date:** 11/15/2012 **FICO #:**

Fac ID: ASH **Fac. Type:** LP Proc/W **Specialist:** HOWARD HAWKINS

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	05/18/2012	08/17/2012	CASIMIR TABAKA	
QA:	08/17/2012	08/17/2012	CASIMIR TABAKA	
Liaison:	08/17/2012		K. Spurlin	P1

P1

Procedure Comments: ENROUTE **Remark Type:** INFORMATION Pkg 3 of 4

NASHUA, NH BOIRE FIELD (KASH) RNAV GPS RWY 32, ORIG ENORUTE: YES FC BY: 9/18/12 PUB: 11/15/12

FORMS:8260-3, 8260-9, 8260-10, 8260-2; CORNY, REV 5, ELIRY, REV 2, ESICU, REV 1, GDM VDME REV 19 (INFO ONLY), IRGAW, REV 2, JAGTA, REV 2 (CANX), LWM VDME REV 10, MUGGY, REV 5.

CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036/405.954.3636.

RNAV (GPS) RWY 32

NASHUA/ BOIRE FIELD (ASH)

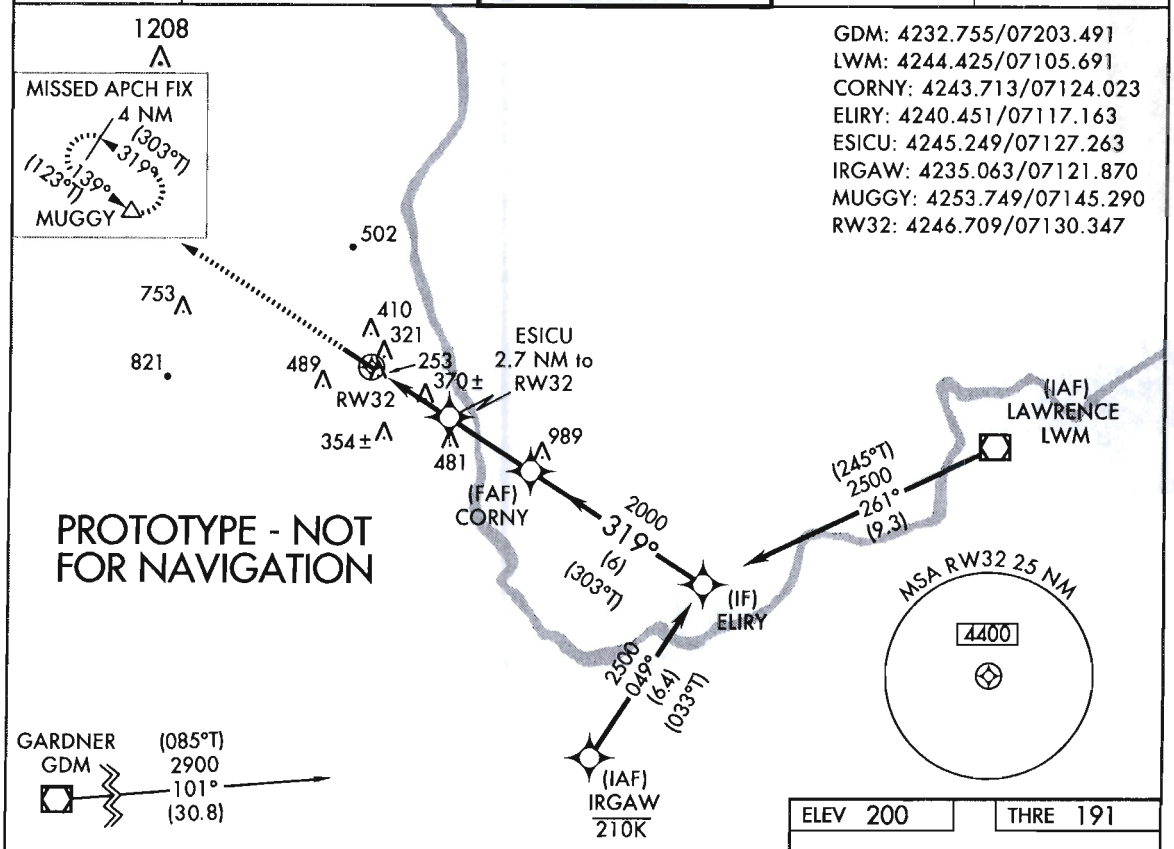
WAAS	APP CRS	Rwy Idg	5501
CH 73030	319°	THRE	191
W32A		Apt Elev	200

When local altimeter setting not received, use Manchester altimeter setting and increase all MDA 40 feet, increase LP and LNAV Cats C/D visibility ⅛ mile and Circling Cats C/D ¼ mile. Procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

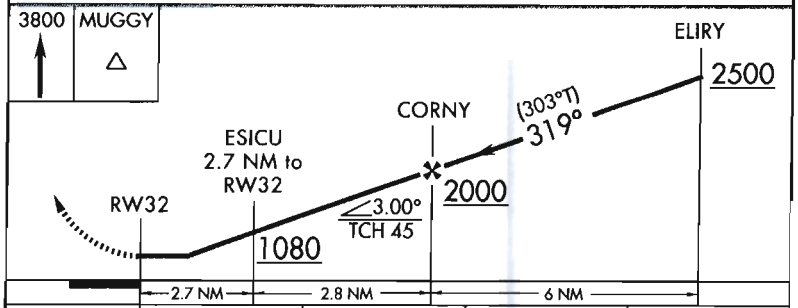
MISSED APPROACH: Climb to 3800 direct MUGGY and hold, continue climb-in-hold to 3800.

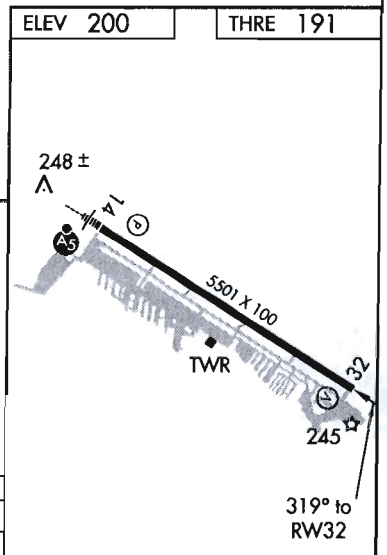
ATIS	BOSTON APP CON	NASHUA TOWER ★	GND CON	CLNC DEL
125.1	124.9 269.075	133.2 (CTAF) L	121.8	121.8

GDM: 4232.755/07203.491
LWM: 4244.425/07105.691
CORNY: 4243.713/07124.023
ELIRY: 4240.451/07117.163
ESICU: 4245.249/07127.263
IRGAW: 4235.063/07121.870
MUGGY: 4253.749/07145.290
RW32: 4246.709/07130.347



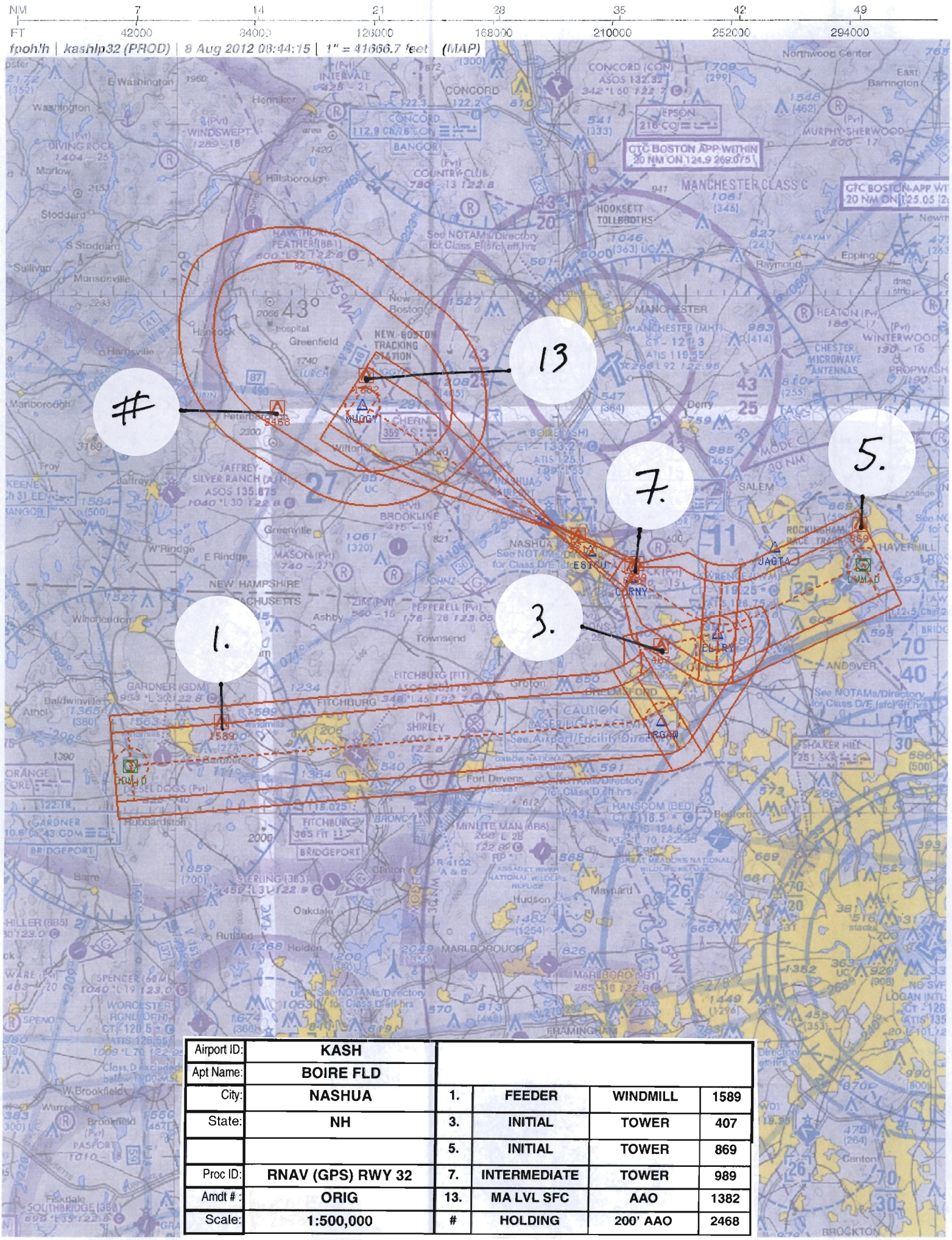
Procedure NA for arrivals on GARDNER VOR/DME airway radials 042 CW 179.





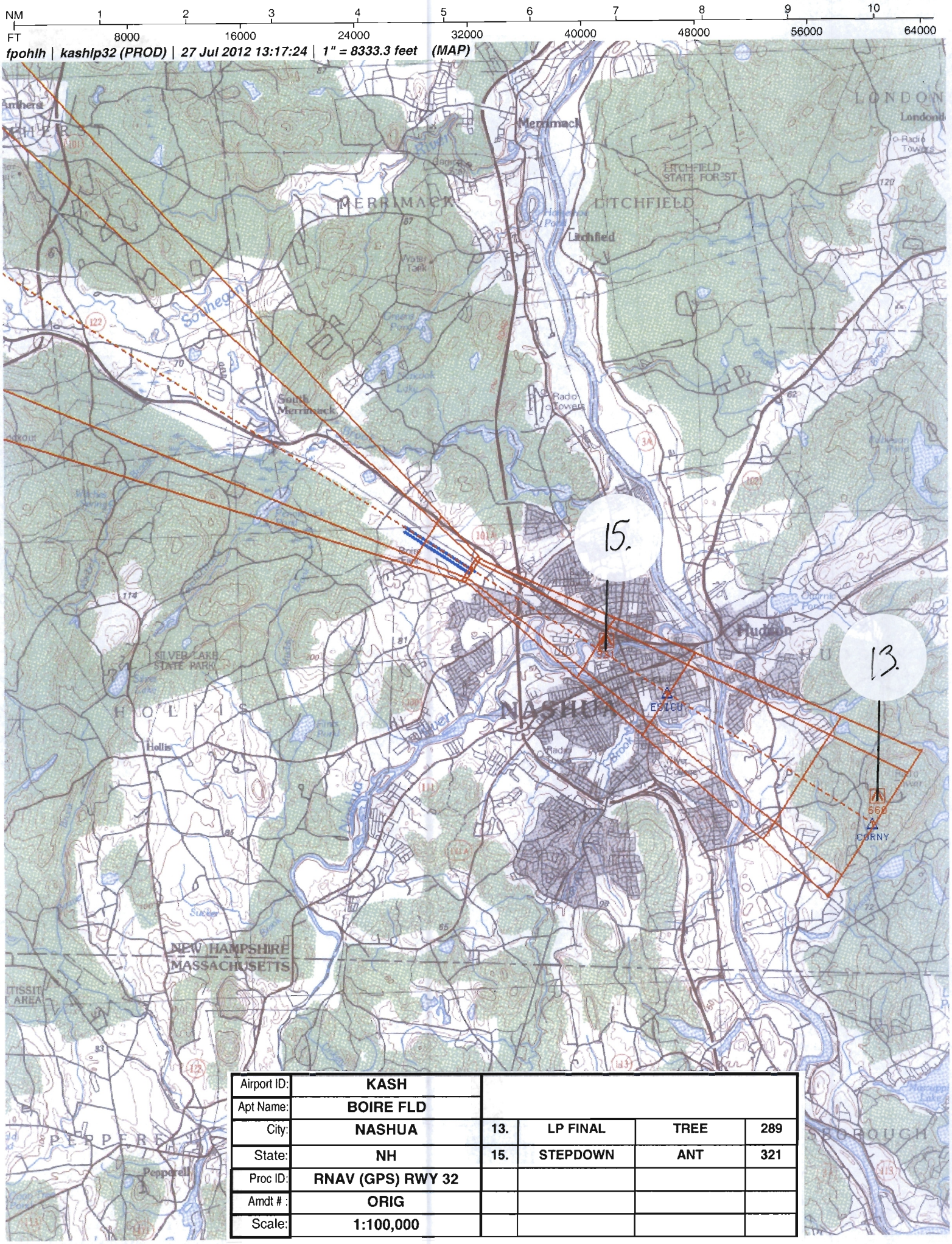
CATEGORY	A	B	C	D
LP MDA	580-1 389 (400-1)		580-1⅛ 389 (400-1⅛)	
LNAV MDA	620-1 429 (500-1)		620-1¼ 429 (500-1¼)	
CIRCLING	820-1 620 (700-1)		840-1¾ 640 (700-1¾)	840-2 640 (700-2)

HIRL Rwy 14-32 L
REIL Rwy 32 L

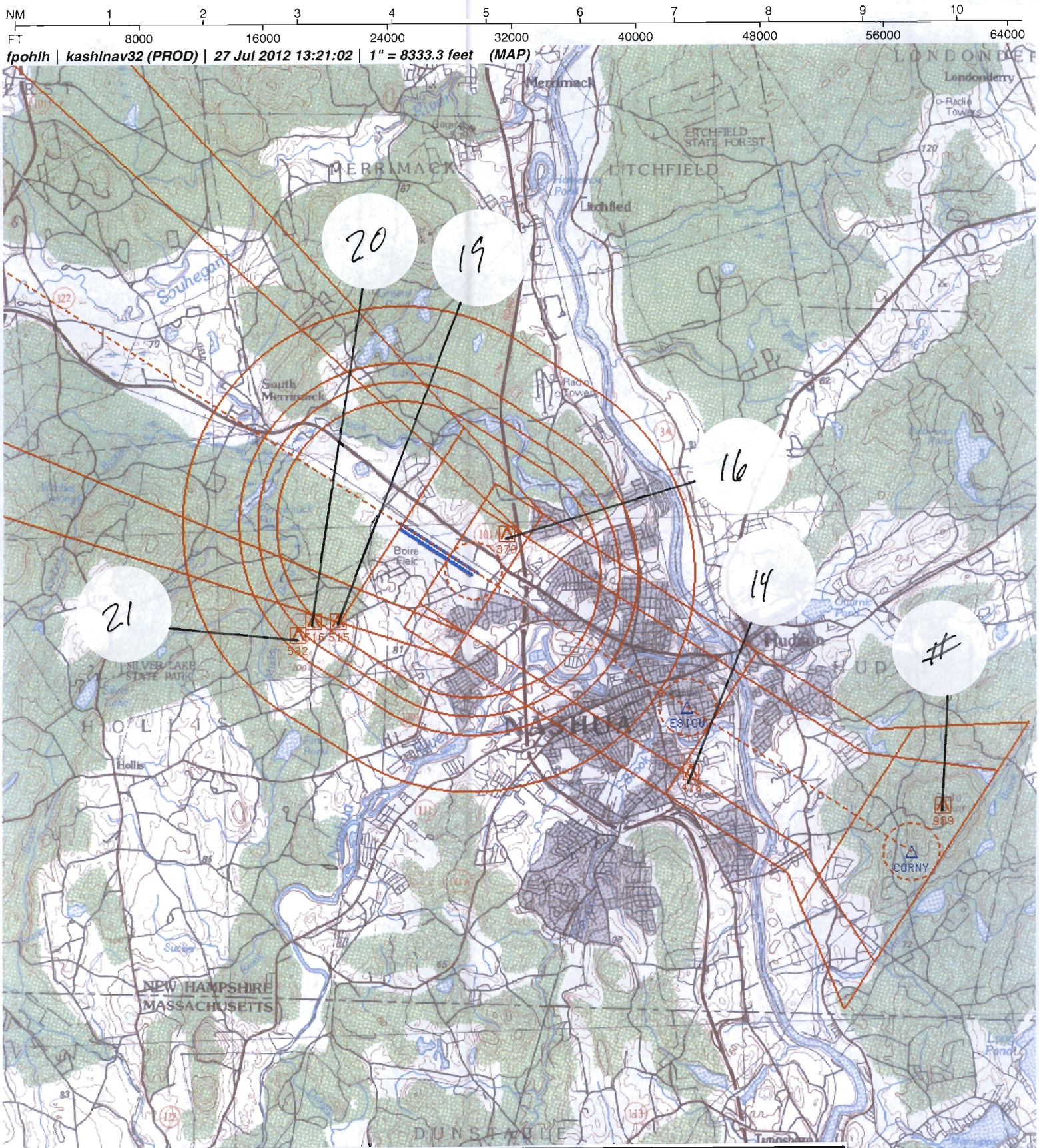


Airport ID:	KASH
Apt Name:	BOIRE FLD
City:	NASHUA
State:	NH
Proc ID:	RNAV (GPS) RWY 32
Amdt # :	ORIG
Scale:	1:500,000

1.	FEEDER	WINDMILL	1589
3.	INITIAL	TOWER	407
5.	INITIAL	TOWER	869
7.	INTERMEDIATE	TOWER	989
13.	MA LVL SFC	AAO	1382
#	HOLDING	200' AAO	2468



Airport ID:	KASH				
Apt Name:	BOIRE FLD				
City:	NASHUA	13.	LP FINAL	TREE	289
State:	NH	15.	STEPDOWN	ANT	321
Proc ID:	RNAV (GPS) RWY 32				
Amdt # :	ORIG				
Scale:	1:100,000				



Airport ID:	KASH				
Apt Name:	BOIRE FLD				
City:	NASHUA	14.	LNAV FINAL	COM TOWER	478
State:	NH	16.	STEPDOWN	TREE	370
		19.	CIRC CAT A	TREE	515
Proc ID:	RNAV (GPS) RWY 32	20.	CIRC CAT A	TREE	516
Amdt # :	ORIG	21.	CIRC CATS C & D	TREE	532
Scale:	1:100,000	#	7:1	TOWER	989

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33

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TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
GDM VOR/DME	IRGAW (FB)	101.48 / 30.84	2900
IRGAW (IAF)	ELIRY (FB)	048.80 / 6.41	2500
LWM VOR/DME (IAF)	ELIRY (FB)	260.90 / 9.34	2500
ELIRY (IF)	CORNY (FB)	318.85 / 6.02	2000
CORNY (FAF)	ESICU/2.70 NM TO RW32 (FB)	318.77 / 2.84	
ESICU/2.70 NM TO RW32	RW32 (MAP) (FO)	318.74 / 2.70	
(SEE FORM 8260-10)			

MISSED APPROACH

LP: RW32
LNAV: RW32

CLIMB TO 3800 DIRECT MUGGY AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3800.

ADDITIONAL FLIGHT DATA:

HOLD NW, LT, 138.55 INBOUND.
CHART FAS OBST: 321 ANT 424547N/0712813W
CHART FAS OBST: 370 TREE 424701N/0712952W
660 AAO 424357N/0712357W.
CHART 989 TOWER 424407N/0712334W.
WAAS CHANNEL # 73030
REFERENCE PATH ID: W32A
CORNY TO RW32: 3.00/45.
LTP HAE: 30.9 M

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT ELIRY
3. FAC: 318.77 FAF: CORNY DIST FAF TO MAP: 5.54 THLD: 5.54
4. MIN. ALT: ELIRY 2500, CORNY 2000, ESICU/2.70 NM TO RW32 1080
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: ____ GS ALT AT: ____ OM: ____ MM: ____ IM: ____
7. GS ANGLE: ____ TCH: 34:1 IS NOT CLEAR
8. MSA FROM: RW32 4400

MAG VAR: 16W 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
LP MDA	580	1	389	580	1	389	580	1 1/8	389	580	1 1/8	389			
LNAV MDA	620	1	429	620	1	429	620	1 1/4	429	620	1 1/4	429			
CIRCLING	820	1	620	820	1	620	840	1 3/4	640	840	2	640			

NOTES:
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MANCHESTER ALTIMETER SETTING AND INCREASE ALL MDA 40 FEET, INCREASE LP AND LNAV CATS C/D VISIBILITY 1/8 MILE AND CIRCLING CATS C/D 1/4 MILE.
CHART NOTE: PROCEDURE NA AT NIGHT.
(SEE FORM 8260-10)

@ NA WHEN LOCAL WEATHER NOT AVAILABLE.

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 200 THRE: 191 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
NASHUA, NH	BOIRE FIELD	RNAV	RNAV (GPS) RWY 32, ORIG	AMDT: NONE
				DATED

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

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[X]	[ ]	[X]	[X]	[X]	[ ]	[ ]

FLIGHT CHECKED BY

NAME:	FIFO	DATE:

DEVELOPED BY

NAME:	FIFO	DATE:
HOWARD L. HAWKINS, JR.	**AJV-352**	**07/28/2012**

APPROVED BY

NAME:		FIFO	DATE:
DARRYEL ADAMS	**MANAGER**	**AJV-352**	

CHANGES:

REASONS:

EFFECTIVE CONCURRENT WITH: KASH ILS OR LOC RWY 14 ORIG

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

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

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
RW32 (MAP)	580 MSL	318.74	
580 MSL	MUGGY (FO)		3800

NOTES, (CONT.):
CHART NOTE: DME/DME RNP-0.3 NA.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART PLANVIEW NOTE AT IRGAW : MAX 210 KIAS.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON GARDNER VOR/DME AIRWAY RADIALS 042 CW 179.

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 200 THRE: 191 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
NASHUA, NH	BOIRE FIELD	RNAV	RNAV (GPS) RWY 32, ORIG	AMDT: NONE
				DATED:

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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FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KASH
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	424642.5470N
LTP/FTP LONGITUDE	0713020.8400W
LTP/FTP ELLIPSOIDAL HEIGHT	+00309
FPAP LATITUDE	424730.6900N
FPAP LONGITUDE	0713202.6700W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1032
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	B706E26A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00582
FPAP ORTHOMETRIC HEIGHT	+00582

QUALITY CHECKED

CITY AND STATE	ELEVATION: 200 THRE: 191	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
NASHUA, NH	AIRPORT NAME: BOIRE FIELD	RNAV	RNAV (GPS) RWY 32, ORIG	AMDT: NONE
				DATED:

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:

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 PACKET - 424-18 - RNAV (GPS)

```
NAVAID  1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ----------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        GDM   K6011060VDL  N42324532W072032948    N42324532W072032948W0140011881     NARGARDNER
        SUSAD        LWM   K6011250VDL  N42442550W071054143    N42442550W071054143W0150003021     NARLAWRENCE

WP      1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ----------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CORNY K60    W     N42434278W071240140                    W0149    NAR          CORNY
        SUSAEAENRT   ELIRY K60    W     N42402705W071170977                    W0150    NAR          ELIRY
        SUSAEAENRT   ESICU K60    W     N42451496W071271580                    W0149    NAR          ESICU
        SUSAEAENRT   IRGAW K60    W     N42350375W071215218                    W0149    NAR          IRGAW
        SUSAEAENRT   MUGGY K60    C   L N42534491W071451741                    W0148    NAR          MUGGY

AIRPORT 1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ----------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KASHK6AASH     0     060YHN42465670W071305070W016000200          1800018000C    MNAR    BOIRE FIELD

SEGMENT 1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ----------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KASHK6FR32   AGDM   010GDM  K6D 0V       IF                                          18000                  A JS
        SUSAP KASHK6FR32   AGDM   020IRGAWK6EA0E  A 020TF                  10150308    + 02900          210                A-JS
        SUSAP KASHK6FR32   AGDM   030ELIRYK6EA0EE B 010TF                  04880064    + 02500                             A JS
        SUSAP KASHK6FR32   ALWM   010LWM  K6D 0V  A    IF                                          18000                  A JS
        SUSAP KASHK6FR32   ALWM   020ELIRYK6EA0EE B 010TF                  26090093    + 02500                             A JS
        SUSAP KASHK6FR32   R      010ELIRYK6EA0E  I    IF                              + 02500     18000                  A JS
        SUSAP KASHK6FR32   R      020CORNYK6EA1E  F 051TF                  31890060    + 02000                 RW32   K6PGA JS
        SUSAP KASHK6FR32   R      020CORNYK6EA2WALP        N        ALNAV                                                 JS
        SUSAP KASHK6FR32   R      021ESICUK6EA0E S  031TF                  31880028    V 0108001096        -300           A JS
        SUSAP KASHK6FR32   R      030RW32 K6PG0GY M 031TF                  31870027      00236             -300           A JS
        SUSAP KASHK6FR32   R      040          0  M     CA                3187        + 00580                             A JS
        SUSAP KASHK6FR32   R      050MUGGYK6EA0EY      DF                              + 03800                             A JS
        SUSAP KASHK6FR32   R      060MUGGYK6EA0EE  L   HM                  13860040    + 03800                             A JS

RUNWAY  1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ----------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KASHK6GRW32    0060003187 N42464255W071302084+0100    +00309001910350451 00R

PP      1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
```

CITY AND STATE	ELEVATION: **200** **THRE: 191**	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
NASHUA, NH	AIRPORT NAME: **BOIRE FIELD**	**RNAV**	**RNAV (GPS) RWY 32, ORIG**	AMDT: **NONE**
				DATED:

QUALITY CHECKED

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 KASHK6PR32   RW32 001 0000W32A0N4246425470W07130208400+003090300N4247306900W07132026700106751032000450F400000B706E26A
SUSAP KASHK6PR32   RW32 002E      +00582+00582LP        73030

                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KASHK6SRW32 K6PG              0   18018004425                                                                          M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 200 THRE: 191 / AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
NASHUA, NH	BOIRE FIELD	RNAV	RNAV (GPS) RWY 32, ORIG	AMDT: NONE
				DATED:

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
	GDM	GDM	010		IF		FB					
	GDM	IRGAW	020	IAF	TF		FB	2.0	101.5(085.5T)	030.8	AA 02900	AB 210
	GDM	ELIRY	030		TF		FB	1.0	048.8(032.8T)	006.4	AA 02500	
	LWM	LWM	010	IAF	IF		FB					
	LWM	ELIRY	020		TF		FB	1.0	260.9(244.9T)	009.3	AA 02500	
		ELIRY	010	FACF	IF		FB				AA 02500	
		CORNY	020	FAF	TF		FB	0.5	318.9(302.9T)	006.0	AA 02000	
		ESICU	021	SDF	TF		FB	0.3	318.8(302.8T)	002.8	AA 01080 GS 01096	
		RW32	030	MAP	TF		FO	0.3	318.7(302.7T)	002.7	AT 00236	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		318.7(302.7T)		AA 00580	
	MUGGY	050		DF		FO				AA 03800	
	MUGGY	060		HM	L	FO		138.6(122.6T)	004.0	AA 03800	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	GDM	N423245.32	W0720329.48	N4232.755	W07203.491
	LWM	N424425.50	W0710541.43	N4244.425	W07105.691
	CORNY	N424342.78	W0712401.40	N4243.713	W07124.023
	ELIRY	N424027.05	W0711709.77	N4240.451	W07117.163
	ESICU	N424514.96	W0712715.80	N4245.249	W07127.263
	IRGAW	N423503.75	W0712152.18	N4235.063	W07121.870
	MUGGY	N425344.91	W0714517.41	N4253.749	W07145.290
	RW32	N424642.55	W0713020.84	N4246.709	W07130.347

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW32	00191	45

CITY AND STATE	ELEVATION: **200** THRE: **191** / AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
NASHUA, NH	**BOIRE FIELD**	**RNAV**	**RNAV (GPS) RWY 32, ORIG**	AMDT: **NONE**
				DATED:

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.
FEEDER	GDM VOR/DME	IRGAW	1. WINDMILL	423454.04N/0715617.55W	1589 (5D)	1000		2600
			(25-021991)					
			2. TERRAIN	423057.00N/0720248.00W	1369 (1400)		AS1500	2900
INITIAL	IRGAW	ELIRY	3. TOWER (25-000355)	423916.00N/0712141.00W	407 (5D)	1000	AT1093	2500
			4. TERRAIN	423509.00N/0712151.00W	414 (400)		AS1500	1900
INITIAL	LWM VOR/DME	ELIRY	5. TOWER (25-000052)	424622.00N/0710601.00W	869 (5D)	1000	AT631	2500
			6. TERRAIN	424500.00N/0711006.00W	355 (400)		AS1500	1900
INTERMEDIATE	ELIRY	CORNY	7. TOWER (33-000085)	424407.00N/0712334.00W	989 (5D)	500		1500
			8. TERRAIN	424407.00N/0712334.00W	490 (500)		AS1500	2000
FINAL: LP	CORNY	ESICU/2.70 NM TO	9. AAO	424436.00N/0712451.00W	520 (2C)	250	DG310	1080
		RW32						
FINAL: LNAV	CORNY	ESICU/2.70 NM TO	10. AAO	424425.70N/0712451.68W	550 (2C)	250	DG280	1080
		RW32						
FINAL: LP STEPDOWN	ESICU/2.70 NM TO	RW32	11. ANT (KASHT000308)	424546.52N/0712812.97W	321 (1A)	250		580
	RW32							
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	RW32 / RW32	MUGGY				ASC		3800
			13. AAO	425503.00N/0714457.00W	1382 (4E)	1000		2400
ELEV:	480/520		14. TERRAIN	425503.00N/0714457.00W	1182 (1200)		AS1500	2700

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.								
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL	620	15. TREE	424605.82N/0713216.74W	515 (1B)	300	820
CATEGORY B	1.5 NM		450		620	16. TREE	424605.56N/0713238.55W	516 (1B)	300	820
CATEGORY C	1.7 NM		450		640	17. TREE	424557.32N/0713252.11W	532 (1B)	300	840
CATEGORY D	2.3 NM		550		640	17. TREE	424557.32N/0713252.11W	532 (1B)	300	840
CATEGORY E	4.5 NM		550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW32

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	297/ 27.0	3369 (4E)	4400					

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
NASHUA, NH	ELEVATION: 200 AIRPORT NAME: BOIRE FIELD	RNAV	RNAV (GPS) RWY 32, ORIG	ANE

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE		3. ALTIMETER SETTING
BOS APP CON ASH TOWER	N W S	OTHER: ASOS	SOURCE: KASH / KMHT
	F A A		DISTANCE: 0 / 9.66
	A / C		HOURS REMOTE OPERATION: 24 / 24
SATISFACTORY ON: X V H F X U H F H F	LOCATION:		ADJUSTMENT: 0 / 0

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

5. APPROACH & RUNWAY LIGHTING	
	ALS
	(S) SALS
X	MALSR 14 (PCL)
	HIRL
	MIRL
X	REIL 32
	TDZ
	C/LINE
X	OTHER (SPECIFY) PAPI-4R 14 PAPI-4L 32

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 14
	INSTRUMENT	NPI-G 32
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

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

10. WAIVERS: NONE

PART D - PREPARED BY: HOWARD L. HAWKINS, JR.	DATE: 07/28/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

THRESHOLD DISPLACED 350 FEET.

VDP NOT ESTABLISHED - 20:1 PENETRATIONS EXIST.

PARA 251, 20:1 PENETRATION.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

KASH ASOS & KMHT AWOS ON SERVICE A.

RASS PRESSURE PATTERNS SAME
KASH 199.1, KMHT 266.0
RA = 31.7.
SEE ATTACHED AIRSPACE LETTER.

VISUAL PORTION OF FINAL PENETRATIONS:

20:1:
264 TREE KASHT000216 424638.99N-0712959.57W (6.45)
245 TREE 33-020485 424632.48N-0713011.93W (8.42)

34:1:
236 TREE KASHT000212 424631.67N-0713007.17W (8.06)
224 TREE KASHT000205 424634.90N-0713007.78W (2.38)
219 TREE KASHT000200 424638.30N-0713007.20W (1.78)
219 TREE KASHT000199 424638.07N-0713007.82W (2.56)
227 TREE KASHT000196 424640.32N-0713006.57W (11.87)
275 TREE 33-020505 424627.54N-0712945.54W (0.51)
263 TREE 33-020501 424627.56N-0713003.30W (21.31)
270 3TREE 3-020496 424629.84N-0712955.51W (17.61)
265 TREE 33-020495 424629.29N-0712956.07W (12.76)
264 TREE 33-020494 424627.61N-0713002.73W (21.34)
275 TREE 33-020490 424630.88N-0712953.28W (20.17)
277 TREE 33-020489 424631.57N-0712953.38W (23.46)
275 TREE 33-020488 424631.59N-0712954.95W (24.39)
265 TREE 33-020487 424632.20N-0712957.05W (19.24)
235 TREE 33-020486 424636.01N-0713003.19W (6.70)
281 TREE 33-020479 424633.92N-0712950.06W (25.11)
283 TREE 33-020478 424632.13N-0712952.28W (28.33)
274 TREE 33-020472 424632.19N-0712953.84W (22.31)
229 TREE 33-020469 424637.21N-0713005.82W (7.48)

TAA NA: ATC REQUEST.

LPV & LNAV/VNAV NOT DEVELOPED TO TO NUMEROUS GQS PENETRATIONS.

TERPS 289 APPLIED TO:
989 TOWER 424407N / 0712334W
660 AAO 424357N / 0712357W

OBS:
12. KASHT000603
15. KASHT000873
16. KASHT000951
17. HASHT001033

QUALITY CHECKED

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FINAL: LNAV STEPDOWN	ESICU/2.70 NM TO	RW32	12. TREE	424700.76N/0712951.75W	370 (1A)	250		620
	RW32							

3. MISSED APPROACH	
MAP:	
ELEV:	

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.		
			REQUIRED	ACTUAL
CATEGORY A	1.3 NM	350		
CATEGORY B	1.5 NM	450		
CATEGORY C	1.7 NM	450		
CATEGORY D	2.3 NM	550		
CATEGORY E	4.5 NM	550		

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
NASHUA, NH	ELEVATION: 200 AIRPORT NAME: BOIRE FIELD	RNAV	RNAV (GPS) RWY 32, ORIG	ANE

CHECKED

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	☐ NWS OTHER:	SOURCE:
	☐ FAA	DISTANCE:
	☐ A/C	HOURS REMOTE OPERATION:
☐ VHF ☐ UHF ☐ HF	LOCATION:	ADJUSTMENT:

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

5. APPROACH & RUNWAY LIGHTING	
☐	**ALS**
☐	**(S) SALS**
☐	**MALS**
☐	**HIRL**
☐	**MIRL**
☐	**REIL**
☐	**TDZ**
☐	**C/LINE**
☐	**OTHER (SPECIFY)**

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

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

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

RADIO FIX AND HOLDING DATA RECORD

NAME: CORNY **STATE:** NH **COUNTRY:** US

LATITUDE/LONGITUDE: 424342.78N/0712401.40W **TYPE:** WP

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

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

REMARKS:
PFAF, COORDINATES DERIVED USING RNP CACULATIONS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
REVISED FIX FACILITY 1.
FIX RELOCATED 680.03FT E.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 07/27/2012 **OFFICE:** AJV-352 **NAME:** HOWARD HAWKINS

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ELIRY **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 424027.05N/0711709.77W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
FIX RELOCATED 415.71 FT NE.
FIX USE UPDATED.

DEVELOPED BY: **DATE:** 07/27/2012 **OFFICE:** AJV-352 **NAME:** HOWARD HAWKINS

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ESICU **STATE:** NH **COUNTRY:** US

LATITUDE/LONGITUDE: 424514.96N/0712715.80W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
FIX RELOCATED 31.83FT NE.
FIX USE UPDATED.

DEVELOPED BY: **DATE:** 07/27/2012 **OFFICE:** AJV-352 **NAME:** HOWARD HAWKINS

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

SIGNATURE:

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

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

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

LATITUDE/LONGITUDE: 423245.32N/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	295.77	115.77	L		10	13000	29000	15	23
6	SW		WP	202.91	022.91	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	422933.00N/0715324.00W	2094	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
6	200	AAO	423057.00N/0720248.00W	1569	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 COMPLETED.
CHART PAT 4 ENROUTE HIGH PER ATC REQUEST.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BRADLEY			KBDL	WINDSOR LOCKS	CT (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)
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)
IAP	RNAV (GPS) RWY 21			K6B6	STOW	MA (US)

QUALITY CHECKED

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	RNAV (GPS)- B	6	KAFN	JAFFREY	NH (US)
IAP	VOR-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)
IAP	RNAV (GPS) RWY 32		KASH	NASHUA	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: 19 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. AMENDED PAT 5 INBOUND COURSE FROM 115.37 TO 115.77.
2. INCREASED PAT 5 MAX HOLDING ALTITUDE FROM 18000 TO 29000.
3. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/03/2012 **OFFICE:** AJV-352 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: IRGAW **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423503.75N/0712152.18W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
FIX RELOCATED 5766.79 SW.
FIX USE UPDATED.

DEVELOPED BY: **DATE:** 07/27/2012 **OFFICE:** AJV-352 **NAME:** HOWARD HAWKINS

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: JAGTA **STATE:** NH **COUNTRY:** US

LATITUDE/LONGITUDE: 424529.49N/0711244.69W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
FIX RELOCATED 1.05NM NE.
FIX USE UPDATED.

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

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

SIGNATURE:

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

QUALITY CHECKED

CANCELLED

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

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

LATITUDE/LONGITUDE: 424425.50N/0710541.43W **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	LAWRENCE	LWM	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	NE	LWM	VOR/DME	056.61	236.61	R	1		2000	6000	4	13
2	NE		WP	056.61	236.61	R		4	2000	6000	4	14

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (25-000052)	424622.00N/0710601.00W	869	5D
1	310	TOWER (25-000052)	424622.00N/0710601.00W	869	5D
2	200	TOWER (25-000052)	424622.00N/0710601.00W	869	5D
2	310	TOWER (25-000052)	424622.00N/0710601.00W	869	5D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC Z RWY 05	KLWM	LAWRENCE	MA (US)
1	VOR RWY 23 (ALT MISS)	KLWM	LAWRENCE	MA (US)
1	ILS OR LOC Y RWY 05	KLWM	LAWRENCE	MA (US)
1	NDB RWY 05	KLWM	LAWRENCE	MA (US)
2	RNAV (GPS) RWY 05	KLWM	LAWRENCE	MA (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MANCHESTER			KMHT	MANCHESTER	NH (US)
DP	PEASE			KPSM	PORTSMOUTH	NH (US)
DP	TANKER			KPSM	PORTSMOUTH	NH (US)
IAP	ILS OR LOC RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) RWY 23			KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) Z RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 29			KBED	BEDFORD	MA (US)
IAP	VOR RWY 23			KBED	BEDFORD	MA (US)
IAP	LOC RWY 16			KBVY	BEVERLY	MA (US)
IAP	VOR RWY 16			KBVY	BEVERLY	MA (US)
IAP	ILS OR LOC RWY 22L			KBOS	BOSTON	MA (US)
IAP	ILS RWY 15R			KBOS	BOSTON	MA (US)
IAP	ILS OR LOC Y RWY 05		1	KLWM	LAWRENCE	MA (US)
IAP	ILS OR LOC Z RWY 05		1	KLWM	LAWRENCE	MA (US)
IAP	NDB RWY 05		1	KLWM	LAWRENCE	MA (US)
IAP	RNAV (GPS) RWY 05		2	KLWM	LAWRENCE	MA (US)
IAP	VOR RWY 23 (ALT MISS)		1	KLWM	LAWRENCE	MA (US)
IAP	NDB-A			K6B6	STOW	MA (US)
IAP	ILS OR LOC RWY 06			KMHT	MANCHESTER	NH (US)
IAP	ILS OR LOC RWY 35			KMHT	MANCHESTER	NH (US)
IAP	ILS RWY 35 (CAT II)			KMHT	MANCHESTER	NH (US)
IAP	ILS RWY 35 (CAT III)			KMHT	MANCHESTER	NH (US)
IAP	RNAV (GPS) RWY 24			KMHT	MANCHESTER	NH (US)
IAP	VOR/DME OR GPS RWY 17			KMHT	MANCHESTER	NH (US)
IAP	ILS OR LOC RWY 14			KASH	NASHUA	NH (US)
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)
IAP	VOR RWY 32			KASH	NASHUA	NH (US)
IAP	ILS OR LOC RWY 16			KPSM	PORTSMOUTH	NH (US)
IAP	ILS OR LOC RWY 34			KPSM	PORTSMOUTH	NH (US)
IAP	VOR RWY 16			KPSM	PORTSMOUTH	NH (US)
IAP	VOR RWY 34			KPSM	PORTSMOUTH	NH (US)

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

COMPULSORY REPORTING POINT: NO

QUALITY CHECKED

RECORD REVISION NUMBER: 10 **DATE OF REVISION:** 06/30/2011

REASON FOR REVISION:
UPDATE PATT1 COURSE AND TEMPLATES.
ADD HOLDING PATTERN 2.
UPDATE HOLDING OBSTRUCTION FOR CIH PATT 1, PATT2 AND CIH PATT2.
ADD CIH PATT 1 AND 2.
UPDATE FIX USE.

DEVELOPED BY:	**DATE:** 01/05/2011	**OFFICE:** AVN-110	**NAME:** DARRYEL ADAMS (ALLAN WILL)
APPROVED BY:	**DATE:** 05/11/2011	**OFFICE:** AVN-110	**NAME:** DARRYEL ADAMS
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZBW
ATC FACILITY: BOS APP CON, KBED ATCT, KLWM ATCT
OTHER:

QUALITY 4 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MUGGY **STATE:** NH **COUNTRY:** US

LATITUDE/LONGITUDE: 425344.91N/0714517.41W **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	MANCHESTER	MHT	VOR/DME	L	290.63	275.63	17.08	17.08		3000	17500
2	NASHUA	I-ASH	LOC		318.69	302.69		13.21		3000	4600
3	CONCORD	CON	VORTAC	L	217.16	202.16		20.97		3000	17500

FIX RESTRICTIONS:
MCA V490 4000 WESTBOUND

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	NW		WP	318.55	138.55	L		4	3500	6000	5	6
2	NW	I-ASH	LOC	318.69	138.69	L	1		3500	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	425309.00N/0715157.00W	2468	4E
2	200	AAO	425309.00N/0715157.00W	2468	4E
2	310	AAO	425130.10N/0715221.70W	2500	4E

REASON FOR NONSTANDARD HOLDING:
PAT 1 ATC REQUEST.
PAT 2 ATC REQUEST.

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 32	KASH	NASHUA	NH (US)

REMARKS:
CONCORD (FAC 3) AND MANCHESTER (FAC 1) AND NASHUA (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V-490	1, 3				(US)
IAP	ILS OR LOC RWY 14	1, 2	2	KASH	NASHUA	NH (US)
IAP	RNAV (GPS) RWY 14		1	KASH	NASHUA	NH (US)
IAP	RNAV (GPS) RWY 32		1	KASH	NASHUA	NH (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
LAT/LONGS CHANGED, FIX RELOCATED 366.36FT WEST.
FAC 1 DISTANCE CHANGED TO 17.08 DME.
FAC 2 ADDED.
FAC 3 BEARING/DISTANCE CHANGED FROM 217.00.
PAT 1 & 2 HOLDING PATTERNS ADDED.
FIX USE UPDATED.

DEVELOPED BY: **DATE:** 07/10/2012 **OFFICE:** AJV-352 **NAME:** HOWARD HAWKINS

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: BOS
ARTCC: ZBW
ATC FACILITY: MHT ATCT, ASH ATCT

QUALITY CHECKED 4

OTHER: BGR FSS

QUALITY CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **BALTIMORE** STATE: **NH**

AIRPORT NAME: **NASHUA/BOIRE FIELD** ID: **KASH**

PROCEDURE: **RNAV (GPS) RWY 32** AMDT: **ORIG**

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 (Enter THLD, FAF, ARP, FACILITY, as appropriate)	**THLD**	to 1000' point	**3.96**
2. Width of (Enter appropriate segment, final, intermediate, etc.)	**FINAL**	segment at 1000' point	**1.94**
3. True Course of	**FINAL**	segment containing 1000' point	**302.77**
4. High Terrain in	**FINAL**	segment containing 1000' point	**460**
5. Distance from (If 1500' point in PT maneuvering area or holding pattern note in remarks)	**THLD**	to 1500' point	**4.54**
6. Width of	**FINAL**	segment at 1500' point	**2.00**
7. True Course of	**FINAL**	segment containing 1500' point	**302.77**
8. High Terrain in	**FINAL**	segment containing 1500' point	**460**

9. Threshold Coordinates (if straight-in) ... **424642.55N** / **0713020.84W**

10. ARP Coordinates ..... **424656.70N** / **0713050.70W**

11. Runway Approach End and distance furthest from ARP ..... RWY **32**

Distance **0.50** NM

12. FAF Coordinates ..... **424342.78N** / **0712401.40W**

REMARKS: Approach/Drawing attached.