US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - 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
FOVEG (IF)	WIDKA (TF) (FB) (RNP 1.00)	020.03 / 5.17	2000
WIDKA	URTOQ (RF) (FB) (RNP 1.00)	(2.60 NM RADIUS CW (CFFGN))/2.94	1800
WANLA (IF)	CESOL (TF) (FB) (RNP 1.00)	084.58 / 6.36	1900
CESOL	URTOQ (TF) (FB) (RNP 1.00)	084.67 / 3.35	1800
URTOQ	JOPVU (RF) (FB) (RNP 0.90)	(4.00 NM RADIUS CW (CFFGP))/1.98	1800
(SEE FORM 8260-10)			

MISSED APPROACH

RNP: DA

CLIMB TO 1000 THEN CLIMBING LEFT TURN TO 2000 DIRECT ZIMOT AND HOLD.

ADDITIONAL FLIGHT DATA:
HOLD NE, LT, 223.97 INBOUND.
CHART R-4102 A/B.
DISTANCE TO THLD FROM 402 HATH: 1.10 NM.
#TCH 182.3 MSL (DO NOT CHART).
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 1: S

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT JOPVU
3. FAC: 113.05 FAF: ____ DIST FAF TO MAP: 5.08 THLD: ____
4. MIN. ALT: JOPVU 1800
5. DIST TO THLD FROM OM: 5.08 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 1800 GS ALT AT: JOPVU 1800 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: #50.3 34:1 IS NOT CLEAR
8. MSA FROM: RW11 3400

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
AUTHORIZATION REQUIRED															
RNP 0.30 DA	534	4500	402	534	4500	402	534	4500	402	534	4500	402			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -16C (4F) OR ABOVE 54C (130F).
CHART NOTE: GPS REQUIRED.
CHART PLANVIEW NOTE AT FOVEG : MAX 210 KIAS.
CHART PLANVIEW NOTE AT HIDRI : MAX 210 KIAS.
(SEE FORM 8260-10)

QUALITY A CHECKED

CITY AND STATE	ELEVATION: 132 THRE: 132	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
BEDFORD, MA	AIRPORT NAME: LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, 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]	[X] **ZBW, BOS APP CON, BED ATCT, BED AMGR**

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: **DAVID SAUER**	FIFO **AJV-352**	DATE: **01/05/2012**
APPROVED BY		
NAME: **DARRYEL ADAMS** **MANAGER**	FIFO **AJV-352**	DATE:

CHANGES:

REASONS:

PDF EDITS:
1. 8260-3, LINE 1: DELETED "NA".
2. 8260-3, LINE 5: ADDED DIST TO THLD FROM OM: "5.08".
3. 8260-10, TERMINAL ROUTES CONT: ADDED "(FAF)" NEXT TO JOPVU; ADDED LINE TO TERMINAL ROUTES BELOW LAST LINE, 1000 MSL ZIMOT(DF)(FO) 2000.
4. 8260-9, PAGE 1 AND 2 FRONT: ADDED RNP VALUE NEXT TO EACH APP SEGMENT.
5. 8260-3, LINE 7: ADDED # NEXT TO 50.3.
6. 8260-3, MINIMUMS: CHANGED "RNP 0.3 DA" TO "RNP 0.30 DA".
7. 8260-9, FRONT PAGE, BLOCK 5: CHANGED MSA FROM "3300" TO "3400".
8. 8260-9, BACK PAGE, BLOCK 3, DELETED "/KBOS", "/14.10", "/0".

EFFECTIVE CONCURRENT WITH: KBED ILS OR LOC RWY 11, AMDT 26.

QUALITY A CHECK

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
BRONC	LOBBY (TF) (FB) (RNP 2.00)	113.22 / 5.06	2300
LOBBY (IAF)	ZELKA (TF) (FB) (RNP 1.00)	118.67 / 2.55	2000
HIDRI (IAF)	ZELKA (TF) (FB) (RNP 1.00)	202.97 / 5.25	2000
ZELKA (IF)	JOPVU (TF) (FB) (RNP 1.00)	112.96 / 6.24	1800
LWM VOR/DME (IAF)	OMIXY (TF) (FB) (RNP 1.00)	250.15 / 7.75	2000
OMIXY	ZARAB (TF) (FB) (RNP 1.00)	250.62 / 5.04	2000
ZARAB (IF)	ILEXE (TF) (FB) (RNP 1.00)	250.56 / 6.00	2000
ILEXE	JOPVU (RF) (FB) (RNP 1.00)	(2.51 NM RADIUS CCW (CFFGM))/6.02	1800
JOPVU (FAF)	RW11 (MAP) (TF) (FO)	113.05 / 5.08	
RW11 (MAP)	1000 MSL	113.05	1000
1000 MSL	ZIMOT (DF) (FO)		2000

NOTES, (CONT.):
CHART PLANVIEW NOTE AT WANLA : MAX 210 KIAS.
CHART PLANVIEW NOTE AT ZARAB : MAX 210 KIAS.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART PLANVIEW NOTE: RADAR REQUIRED FOR ARRIVALS AT HIDRI, FOVEG, AND LWM VOR/DME.
CHART NOTE: FOR INOPERATIVE MALSR, INCREASE RNP 0.30 ALL CATS VISIBILITY TO 1 3/8.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BRONC ON V431 WESTBOUND.
CHART PLANVIEW NOTE AT WANLA: (RNP 0.90).
CHART PLANVIEW NOTE AT FOVEG: (RNP 0.90).
CHART PLANVIEW NOTE ADJACENT TO LWM VOR/DME IAF: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO WANLA: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO FOVEG: RF REQUIRED.

QUALITY CHECKED A

CITY AND STATE	ELEVATION: 132 THRE: 132	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
BEDFORD, MA	AIRPORT NAME: LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, ORIG	AMDT: NONE
				DATED:

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

COORDINATED WITH:

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

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

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC PACKET - 424-18 - RNAV (RNP)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAD        LWM   K6011250VDL  N42442550W071054143    N42442550W071054143W0150003021     NARLAWRENCE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BRONC K60    C   L N42305393W071432161                      W0148     NAR           BRONC
        SUSAEAENRT   CESOL K60    W     N42272859W071314041                      W0148     NAR           CESOL
        SUSAEAENRT   CFFGM K60    W     N42312572W071242496                      W0149     NAR           CNF(CFFGM)
        SUSAEAENRT   CFFGN K60    W     N42261621W071261099                      W0149     NAR           CNF(CFFGN)
        SUSAEAENRT   CFFGP K60    W     N42245794W071252973                      W0149     NAR           CNF(CFFGP)
        SUSAEAENRT   FOVEG K60    W     N42211750W071301058                      W0148     NAR           FOVEG
        SUSAEAENRT   HIDRI K60    W     N42345468W071322060                      W0149     NAR           HIDRI
        SUSAEAENRT   ILEXE K60    W     N42332832W071262335                      W0149     NAR           ILEXE
        SUSAEAENRT   JOPVU K60    C     N42285621W071244996                      W0149     NAR           JOPVU
        SUSAEAENRT   LOBBY K60    C   L N42301553W071363404                      W0148     NAR           LOBBY
        SUSAEAENRT   OMIXY K60    W     N42395272W071141238                      W0150     NAR           OMIXY
        SUSAEAENRT   URTOQ K60    W     N42284162W071272749                      W0149     NAR           URTOQ
        SUSAEAENRT   WANLA K60    W     N42250939W071394053                      W0148     NAR           WANLA
        SUSAEAENRT   WIDKA K60    W     N42262715W071294116                      W0148     NAR           WIDKA
        SUSAEAENRT   ZARAB K60    W     N42365750W071194619                      W0150     NAR           ZARAB
        SUSAEAENRT   ZELKA K60    C     N42294190W071331227                      W0148     NAR           ZELKA
        SUSAEAENRT   ZIMOT K60    C     N42374784W071102733                      W0150     NAR           ZIMOT

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBEDK6ABED     0     070YHN42281180W071172040W016000132         1800018000C    MNAR    LAURENCE G HANSCOM FLD

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBEDK6FH11-Y ABRONC 010BRONCK6EA0E       IF                                                18000                A FS
        SUSAP KBEDK6FH11-Y ABRONC 020LOBBYK6EA0E  A 020TF                                        + 02300                         A FS
        SUSAP KBEDK6FH11-Y ABRONC 030ZELKAK6EA0E  B 010TF                                        + 02000                         A FS
        SUSAP KBEDK6FH11-Y ABRONC 040JOPVUK6EA0EE   010TF                                        + 01800                         A FS
        SUSAP KBEDK6FH11-Y AFOVEG 010FOVEGK6EA0E  B    IF                                                18000210             A-FS
        SUSAP KBEDK6FH11-Y AFOVEG 020WIDKAK6EA0E    010TF                                        + 02000                         A FS
        SUSAP KBEDK6FH11-Y AFOVEG 030URTOQK6EA0E   R010RF       0026000200    08470029    + 01800                CFFGN K6EAA FS
        SUSAP KBEDK6FH11-Y AFOVEG 040JOPVUK6EA0EE  R091RF       0040000847    11310020    + 01800                CFFGP K6EAA FS
        SUSAP KBEDK6FH11-Y AHIDRI 010HIDRIK6EA0E  A    IF                                                18000210             A-FS
        SUSAP KBEDK6FH11-Y AHIDRI 020ZELKAK6EA0E  B 010TF                                        + 02000                         A FS
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 132 THRE: 132	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
BEDFORD, MA	AIRPORT NAME: **LAURENCE G HANSCOM FLD**	**RNAV**	**RNAV (RNP) Y RWY 11, ORIG**	AMDT: **NONE**
				DATED:

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

COORDINATED WITH:

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

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

CHANGES:

REASONS:

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```
SUSAP KBEDK6FH11-Y AHIDRI 030JOPVUK6EA0EE  L010TFY                                  + 01800                          A FS
SUSAP KBEDK6FH11-Y ALWM   010LWM  K6D 0V  A    IF                                                18000                 A FS
SUSAP KBEDK6FH11-Y ALWM   020OMIXYK6EA0E    010TF                                   + 02000                          A FS
SUSAP KBEDK6FH11-Y ALWM   030ZARABK6EA0E  B 010TF                                   + 02000          210             A-FS
SUSAP KBEDK6FH11-Y ALWM   040ILEXEK6EA0E    010TF                                   + 02000                          A FS
SUSAP KBEDK6FH11-Y ALWM   050JOPVUK6EA0EE  L010RF       0025102506    11310060      + 01800                CFFGM K6EAA FS
SUSAP KBEDK6FH11-Y AWANLA 010WANLAK6EA0E  B    IF                                                18000210              A-FS
SUSAP KBEDK6FH11-Y AWANLA 020CESOLK6EA0E    010TF                                   + 01900                          A FS
SUSAP KBEDK6FH11-Y AWANLA 030URTOQK6EA0E    010TF                                   + 01800                          A FS
SUSAP KBEDK6FH11-Y AWANLA 040JOPVUK6EA0EE  R091RF       0040000847    11310020      + 01800                CFFGP K6EAA FS
SUSAP KBEDK6FH11-Y H      020JOPVUK6EA1E  F    IF                                   + 01800     18000      RW11 BK6PGA FS
SUSAP KBEDK6FH11-Y H      020JOPVUK6EA2W                                                    A031                        FS
SUSAP KBEDK6FH11-Y H      030RW11 K6PG0GY M 031TF                                     00182            -300          A FS
SUSAP KBEDK6FH11-Y H      040         0  M     CA                     1131          + 01000                          A FS
SUSAP KBEDK6FH11-Y H      050ZIMOTK6EA0EY      DF                                   + 02000                          A FS
SUSAP KBEDK6FH11-Y H      060ZIMOTK6EA0EE  L   HM                     22400040      + 02000                          A FS
```

```
                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBEDK6GRW11    0070111131 N42281857W071180123-0100    +0012400132000050150IIBED1
```

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                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBEDK6SRW11 K6PGB              0   18018003425                                                                        M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 132 THRE: 132	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
BEDFORD, MA	AIRPORT NAME: LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, ORIG	AMDT: NONE
				DATED:

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

COORDINATED WITH:

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

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

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (RNP)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	BRONC	BRONC	010		IF		FB					
	BRONC	LOBBY	020	IAF	TF		FB	2.0			AA 02300	
	BRONC	ZELKA	030		TF		FB	1.0			AA 02000	
	BRONC	JOPVU	040		TF		FB	1.0			AA 01800	
	FOVEG	FOVEG	010		IF		FB					AB 210
	FOVEG	WIDKA	020		TF		FB	1.0			AA 02000	
	FOVEG	URTOQ	030		RF	R	FB	1.0		002.9	AA 01800	
	FOVEG	JOPVU	040		RF	R	FB	0.9		002.0	AA 01800	
	HIDRI	HIDRI	010	IAF	IF		FB					AB 210
	HIDRI	ZELKA	020		TF		FB	1.0			AA 02000	
	HIDRI	JOPVU	030		TF	L	FB	1.0			AA 01800	
	LWM	LWM	010	IAF	IF		FB					
	LWM	OMIXY	020		TF		FB	1.0			AA 02000	
	LWM	ZARAB	030		TF		FB	1.0			AA 02000	AB 210
	LWM	ILEXE	040		TF		FB	1.0			AA 02000	
	LWM	JOPVU	050		RF	L	FB	1.0		006.0	AA 01800	
	WANLA	WANLA	010		IF		FB					AB 210
	WANLA	CESOL	020		TF		FB	1.0			AA 01900	
	WANLA	URTOQ	030		TF		FB	1.0			AA 01800	
	WANLA	JOPVU	040		RF	R	FB	0.9		002.0	AA 01800	
		JOPVU	020	FAF	IF		FB				AA 01800	
		RW11	030	MAP	TF		FO	0.3			AT 00182	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		113.1(097.1T)		AA 01000	
	ZIMOT	050		DF		FO				AA 02000	
	ZIMOT	060		HM	L	FO		224.0(208.0T)	004.0	AA 02000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	LWM	N424425.50	W0710541.43	N4244.425	W07105.691
	BRONC	N423053.93	W0714321.61	N4230.899	W07143.360
	CESOL	N422728.59	W0713140.41	N4227.477	W07131.674
	CFFGM	N423125.72	W0712424.96	N4231.429	W07124.416
	CFFGN	N422616.21	W0712610.99	N4226.270	W07126.183
	CFFGP	N422457.94	W0712529.73	N4224.966	W07125.496
	FOVEG	N422117.50	W0713010.58	N4221.292	W07130.176
	HIDRI	N423454.68	W0713220.60	N4234.911	W07132.343
	ILEXE	N423328.32	W0712623.35	N4233.472	W07126.389
	JOPVU	N422856.21	W0712449.96	N4228.937	W07124.833
	LOBBY	N423015.53	W0713634.04	N4230.259	W07136.567

QUALITY 7 CHECKED

CITY AND STATE	ELEVATION: 132 THRE: 132	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
BEDFORD, MA	AIRPORT NAME: LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, ORIG	AMDT: NONE
				DATED:

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

COORDINATED WITH:

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

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

CHANGES:

REASONS:

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

OMIXY	N423952.72	W0711412.38	N4239.879	W07114.206
URTOQ	N422841.62	W0712727.49	N4228.694	W07127.458
WANLA	N422509.39	W0713940.53	N4225.157	W07139.676
WIDKA	N422627.15	W0712941.16	N4226.453	W07129.686
ZARAB	N423657.50	W0711946.19	N4236.958	W07119.770
ZELKA	N422941.90	W0713312.27	N4229.698	W07133.205
ZIMOT	N423747.84	W0711027.33	N4237.797	W07110.456
RW11	N422818.57	W0711801.23	N4228.310	W07118.021

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW11	00132	50

QUALITY CHECKED

CITY AND STATE	ELEVATION: 132 THRE: 132	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
BEDFORD, MA	AIRPORT NAME: LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, ORIG	AMDT: NONE
				DATED:

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

COORDINATED WITH:

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

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

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
INTERMEDIATE (RNP 1.00)	FOVEG	WIDKA	1. TOWER (25-000619)	422302.73N/0712935.33W	1462 (2A)	500	AC3	2000
			2. TERRAIN	422633.00N/0713106.00W	516 (500)		AS1500	2000
INTERMEDIATE: (RNP 1.00)	WIDKA	URTOQ	3. AAO	422633.00N/0713106.00W	716 (4E)	500	AC98 AT486	1800
STEPDOWN			2. TERRAIN	422633.00N/0713106.00W	516 (500)		AS1000	1500
INTERMEDIATE (RNP 1.00)	WANLA	CESOL	4. AAO	422709.00N/0713642.00W	889 (4E)	500	AC98 AT413	1900
			5. TERRAIN	422709.00N/0713642.00W	689 (700)		AS1000	1700
INTERMEDIATE: (RNP 1.00)	CESOL	URTOQ	3. AAO	422633.00N/0713106.00W	716 (4E)	500	AC98 AT486	1800
STEPDOWN			2. TERRAIN	422633.00N/0713106.00W	516 (500)		AS1000	1500
INTERMEDIATE: (RNP 1.00)	URTOQ	JOPVU	6. AAO	423024.00N/0712633.00W	624 (4E)	500	AC98 AT578	1800
STEPDOWN			7. TERRAIN	423024.00N/0712636.00W	424 (400)		AS1000	1400
FEEDER (RNP 2.00)	BRONC	LOBBY	8. AAO	422715.00N/0714557.00W	1014 (4E)	1000	AC98 AT188	2300
			9. TERRAIN	422709.00N/0714300.00W	621 (600)		AS1500	2100
INITIAL (RNP 1.00)	LOBBY	ZELKA	10. AAO	423018.00N/0713330.00W	850 (4E)	1000	AC98	2000
			11. TERRAIN	423018.00N/0713330.00W	650 (700)		AS1000	1700
2. PROCEDURE TURN	NA							
3. MISSED APPROACH — MAP:	DA	ZIMOT				ASC		2000
			15. TOWER (25-000611)	423914.00N/0711300.00W	807 (5D)	1000	AC50	1900
ELEV:	384		22. TERRAIN	423757.00N/0711339.00W	355 (400)		AS1500	1900

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. 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: RW11

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	288/ 26.1	2215 (4E)	3400					

CITY AND STATE	ELEVATION: 132 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
BEDFORD, MA	LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, ORIG	ANE

PART B - SUPPLEMENTAL DATA

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

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3
5. APPROACH & RUNWAY LIGHTING		ALS
		(S) SALS
	X	MALSR 11 (PCL), 29 (PCL)
	X	HIRL 11 (PCL), 29 (PCL)
	X	MIRL 05 (PCL), 23 (PCL)
	X	REIL 05, 23
		TDZ
		C/LINE
	X	OTHER (SPECIFY) VASI-4R 23 PAPI-4L 11, 29 VASI-4L 05
6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 11, 29
	INSTRUMENT	NPI-G 05, 23
7. RUNWAY VISUAL RANGE	APPROACH	11
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 132.0
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 50.3
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD — FT. FROM THRESHOLD
	X	ON CENTERLINE — FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY:	DATE:
DAVID SAUER	01/05/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

VDP NOT ESTABLISHED - PRECISION APPROACH.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

KBED ASOS ON SERVICE A
VGSI DATA: 3.00/67

SEE ATTACHED AIRSPACE LETTER.

RASS PRESSURE PATTERNS SAME
KBED 132.0 KBOS 20.0
RA=48.2

RNP SLOPE: 21.77:1
AIRPORT ISA: 14.74
ACT: -16
AVERAGE COLD TEMPERATURE BASED ON 4 YEAR HISTORY (2006-2009).

RF TURN RADIUS/BANK ANGLE COMPUTATIONS:

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
WIDKA-URTOQ	3030	210	218.4	2898	52.73	2.6	23.44
URTOQ-JOPVU	2295	210	217.56	2163	51.28	4	15.32
ILEXE-JOPVU	3305	210	217.56	3173	53.28	2.51	24.41

RF TURN RADIUS/BANK ANGLE COMPUTATIONS:

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	BA
FOVEG-WIDKA	4322	210	222.72	4190	50	18
WANLA-CESOL	3885	210	223.05	3753	50	18
CESOL-URTOQ	3133	210	219.64	3001	50	18
BRONC-LOBBY	5263	250	269.99	5131	58.66	18
LOBBY-ZELKA	3998	250	266.80	3866	52.28	18
HIDRI-ZELKA	4673	210	218.40	4541	50	18
ZELKA-JOPVU	3360	250	259.00	3228	50	18
LWM-OMIXY	8003	250	280.32	7871	79.33	18
OMIXY-ZARAB	6065	210	230.18	5933	66.73	18
ZARAB-ILEXE	4805	210	223.88	4673	51.73	18

COULD NOT DEVELOP A LOWER RNP VALUE IAW 8260.52, PARA 1.10. RNP 0.20 DA/HATH WOULD ALLOW A 50 FT IMPROVMENT, HOWEVER IPDS SOFTWARE LIMIATIONS COULD NOT COMPLETE EVALUATION. .

SPOKE WITH ATC ABOUT 2000 ALTITUDE AT ZELKA BECAUSE IT DIFFERS FROM THE 1900 USED IN THE ILS AND GPS PROCEDURES, THEY HAD NO OBJECTIONS TO DIFFERENCE.

USED RNP 0.90 IN URTOQ TO TAYUB SEGMENT BECAUSE RNP 1.00 DIDN'T WORK WITH A 1.98NM SEGMENT LENGTH.

FEEDER FROM BRONC TO IAF LOBBY NOT PROCEDURALLY SEPARATED FROM R-4102A/B, PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY REQUIRED.

WANLA TRANSITION TIED TO DREEM (RNAV) STAR.

USED PBN FORMULA B CALCULATOR WITH A 25 DEGREE BANK ANGLE TO VERIFY MINIMUM LEG LENGTH BETWEEN HIDRI AND ZELKA.

USED PBN FORMULA C CALCULATOR WITH A 25 DEGREE BANK ANGLE TO VERIFY MINIMUM LEG LENGTH ON MISSED APPROACH DF SEGMENT.

MAX SPEED ZARAB TO ILEXE, ILEXE TO JOPVU, WANLA TO CESOL, CESOL TO URTOQ, FOVEG TO WIDKA, WIDKA TO URTOQ, URTOQ TO JOPVU - 210 KIAS.
CONT.

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.
INITIAL (RNP 1.00)	HIDRI	ZELKA	10. AAO	423018.00N/0713330.00W	850 (4E)	1000	AC98	2000
			11. TERRAIN	423018.00N/0713330.00W	650 (700)		AS1000	1700
INTERMEDIATE (RNP 1.00)	ZELKA	JOPVU	10. AAO	423018.00N/0713330.00W	850 (4E)	500	AC98 AT152 VEB200	1800
			12. TERRAIN	423103.00N/0713251.00W	624 (600)		AS1000	1600
INITIAL (RNP 1.00)	LWM VOR/DME	OMIXY	13. TOWER (25-000052)	424622.00N/0710601.00W	869 (5D)	1000	AC50	2000
			14. TERRAIN	423915.00N/0711309.00W	381 (400)		AS1500	1900
INITIAL: STEPDOWN (RNP 1.00)	OMIXY	ZARAB	15. TOWER (25-000611)	423914.00N/0711300.00W	807 (5D)	1000	AC50 AT143	2000
			16. TERRAIN	423803.00N/0711342.00W	361 (400)		AS1500	1900
INTERMEDIATE (RNP 1.00)	ZARAB	ILEXE	17. AAO	423436.00N/0712630.00W	670 (4E)	500	AC98	1300
			18. TERRAIN	423436.00N/0712630.00W	470 (500)		AS1500	2000
INTERMEDIATE: (RNP 1.00)	ILEXE	JOPVU	19. AAO	423057.00N/0712839.00W	676 (4E)	500	AC98 AT526	1800
STEPDOWN			20. TERRAIN	423057.00N/0712839.00W	476 (500)		AS1000	1500
FINAL: (RNP 0.30)	JOPVU	RW11	21. TREE (KBEDT1295)	422834.97N/0711908.66W	257 (1A)	21.77:1	AC3	534/402

3. MISSED APPROACH	
MAP:	
ELEV:	

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. 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	ELEVATION: 132 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
BEDFORD, MA	LAURENCE G HANSCOM FLD	RNAV	RNAV (RNP) Y RWY 11, ORIG	ANE

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE		3. ALTIMETER SETTING
SATISFACTORY ON:	N W S	OTHER:	SOURCE:
	F A A		DISTANCE:
	A / C		HOURS REMOTE OPERATION:
V H F / U H F / H F	LOCATION:		ADJUSTMENT:

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

CONTINUED.

OBS KBEDT1201 PENTRATES POFZ.

ORDER 8260.3, VOLUME 1. "VISUAL PORTION OF FINAL" PENETRATIONS.
34:1
246 TREE (25-020201) (20/3) 422825.87N/0711855.49W (2.10)
206 TREE (KBEDT1246) (20/3) 422815.74N/0711839.05W (1.80)
151 TREE (25-020197) (20/3) 422823.11N/0711813.30W (0.40)
243 TREE (KBEDT1278) (20/3) 422831.22N/0711854.02W (0.35)
182 TREE (25-020211) (20/3) 422818.86N/0711828.31W (0.14)
198 TREE (KBEDT1241) (20/3) 422814.73N/0711836.34W (0.10)

FPT NOTIFIED.

RADIO FIX AND HOLDING DATA RECORD

NAME: BRONC **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423053.93N/0714321.61W **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	GARDNER	GDM	VOR/DME	L	110.99	096.99	15.00	15.00		3500	17500
2	MANCHESTER	MHT	VOR/DME	L	231.50	216.50	26.34	26.34		3500	17500

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

REMARKS:
MANCHESTER (FAC 2) AND GARDNER (FAC 1) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V431	1, 2				(US)
IAP	ILS OR LOC RWY 11	1, 2		KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) Z RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) RWY 32			KORE	ORANGE	MA (US)
STAR	GARDNER	1, 2		KBOS	BOSTON	MA (US)
STAR	QUABN (RNAV)			KBOS	BOSTON	MA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
AMENDED FAC 1 MAG BRG FROM 111.00 TO 110.99.

DEVELOPED BY: **DATE:** 04/02/2012 **OFFICE:** AJV-352 **NAME:** PETER GUIMOND

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

SIGNATURE:

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

QUALITY CHECKED 4

RADIO FIX AND HOLDING DATA RECORD

NAME: CESOL **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422728.59N/0713140.41W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/17/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZBW
ATC FACILITY: BED ATCT, BOS APP CON
OTHER:

QUALITY 4 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CFFGM **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423125.72N/0712424.96W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 03/19/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZBW
ATC FACILITY: BED ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFFGN **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422616.21N/0712610.99W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 03/19/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: CFFGP **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422457.94N/0712529.73W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 03/19/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: FOVEG **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422117.50N/0713010.58W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** CANCEL

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. DELETED FAC 1, JAMEX.
2. DELETED PAT 1.
3. DELETED REMARK "RESTRICTED BOSTON SCIENTIFIC, NATICK, MA. PRECIPITOUS TERRAIN EVALUATION COMPLETED.
4. DELETED REMARK, "HOLDING LIMITED TO ESTABLISHED PATTERN, 70 KIAS MAXIMUM".
5. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 03/19/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: HIDRI **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423454.68N/0713220.60W- **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) Z RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. MOVED FIX 1519.70 FT NORTH.
2. DELETED FAC 1, ZELKA.

DEVELOPED BY: **DATE:** 01/06/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZBW
ATC FACILITY: BOS APP CON, BED ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ILEXE **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423328.32N/0712623.35W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/17/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: JOPVU **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422856.21N/0712449.96W **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	BEDFORD	I-BED	LOC		293.13	277.13	6.52	6.51	39551	1800	4600
2	MANCHESTER	MHT	VOR/DME	L	199.86	184.86		23.25		1800	4600

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

REMARKS:
I-BED DME COORDINATES: 422805.50N/0711606.17W
COORDINATES ESTABLISHED USING 8260.54A, FORMULA 2-16B.
NAME CHANGED FROM TAYUB TO JOPVU.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 11	1, 2		KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) Z RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. MOVED FIX 1391.44 FT EAST.
2. DELETED FAC 3, KBED R11.
3. ADDED FAC 1 AND 2 DIST FROM FAC IN NM.
4. ADDED FAC 1 DIST FROM FAC IN FEET.
5. CHANGED FAC 1 AND 2 MRA FROM 1900 TO 1800.
6. CHANGED FAC 1 DME FROM 6.74 TO 6.52.
7. CHANGED FAC 2 TRUE BRG FROM 185.42 TO 184.86.
8. DELETED REMARK, RNAV (GPS) RWY 11 PFAF COORDINATES BASED ON ILS PFAF.
9. ADDED REMARK, COORDINATES ESTABLISHED USING 8260.54A, FORMULA 2-16B.
10. CHANGED I-BED COORDINATES FROM 422804.76N/0711606.58W TO 422805.50N/0711606.17W.
11. NAME CHANGED FROM TAYUB TO JOPVU.
12. ADDED REMARK, NAME CHANGED FROM TAYUB TO JOPVU.

DEVELOPED BY: **DATE:** 01/09/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZBW
ATC FACILITY: BOS APP CON, BED ATCT
OTHER:

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

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:

RADIO FIX AND HOLDING DATA RECORD

NAME: LOBBY **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423015.53N/0713634.04W **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	GARDNER	GDM	VOR/DME	L	110.99	096.99	20.06	20.06		2300	17500
2	MANCHESTER	MHT	VOR/DME	L	221.00	206.00		24.29		2300	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	W	GDM	VORTAC	290.99	110.99	L	1-1 1/2		3500	17500	5	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (25-000400)	423026.00N/0714941.00W	1364	5D

REASON FOR NONSTANDARD HOLDING:
PAT 1 AIRSPACE PROTECTION

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
GARDNER (FAC 1) AND MANCHESTER (FAC 2) USED TO ESTABLISH FIX COORDINATES
HOLDING PATTERN OVERLAYS R-4102A SURFACE UP TO BUT NOT INCLUDING 2000.
HOLDING PATTERN PENETRATES R-4102B 3500 TO 3995
BOSTON APP CON IS CONTROLLING AGENCY FOR R-4102A/B.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V431	1, 2	1			(US)
IAP	ILS OR LOC RWY 11	1, 2		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 11			KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) RWY 32			KASH	NASHUA	NH (US)
STAR	GARDNER	1, 2		KBOS	BOSTON	MA (US)
STAR	QUABN (RNAV)			KBOS	BOSTON	MA (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. AMENDED FAC 1 MAG BRG FROM 111.00 TO 110.99.
2. INCREASED FAC 1 AND FAC 2 MRA FROM 2000 TO 2300.
3. AMENDED PAT 1 HOLDING INBOUND CRS FROM 111.00 TO 110.99.

DEVELOPED BY: **DATE:** 04/02/2012 **OFFICE:** AJV-352 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **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: OMIXY **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423952.72N/0711412.38W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/17/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: URTOQ **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422841.62N/0712727.49W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/17/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: WANLA **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422509.39N/0713940.53W **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) Z RWY 11			KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)
STAR	DREEM (RNAV)			KBED	BEDFORD	MA (US)
STAR	DREEM (RNAV)			KBVY	BEVERLY	MA (US)
STAR	DREEM (RNAV)			KLWM	LAWRENCE	MA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 12/15/2011

REASON FOR REVISION:
1. DELETED FAC 1, ZELKA.
2. ADDED STAR TO REQUIRED CHARTING.
3. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 06/24/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (DAVID SAUER)

APPROVED BY: **DATE:** 10/26/2011 **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: WIDKA **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422627.15N/0712941.16W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/17/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ZARAB **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423657.50N/0711946.19W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/17/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ZELKA **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 422941.90N/0713312.27W **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	FEET	MRA	MAA
1	BEDFORD	I-BED	LOC/DME		293.13	277.13	12.76	12.75		1900	4600
2	MANCHESTER	MHT	VOR/DME	L	215.02	200.02		23.84		1900	4600

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NW	I-BED	LOC/DME	293.13	113.13	L	1		1900	6000	4	6
2	NW		WP	292.96	112.96	L		4	1900	6000	4	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	422709.00N/0713642.00W	889	4E
2	200	AAO	422709.00N/0713604.00W	889	4E

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

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.
PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-4102A/B.

REMARKS:
BEDFORD (FAC 1) AND MANCHESTER (FAC 2) USED TO ESTABLISH FIX COORDINATES
I-BED DME COORDINATES: 422805.50N/0711606.17W
HOLDING PATTERNS PENETRATE R-4102A & 4102B
BOSTON APP CON IS CONTROLLING AGENCY FOR R-4102A & R-4102B (SURFACE TO 3995)
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	KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) Z RWY 11		2	KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 11			KBED	BEDFORD	MA (US)
STAR	DREEM (RNAV)			KBED	BEDFORD	MA (US)
STAR	DREEM (RNAV)			KBVY	BEVERLY	MA (US)
STAR	DREEM (RNAV)			KLWM	LAWRENCE	MA (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. CHANGED FAC 1 DME FROM 12.75 TO 12.76.
2. CHANGED REMARK FOR I-BED COORDINATES FROM 422804.76N/0711606.58W TO 422805.50N/0711606.17W.
3. ADDED HOLDING RESTRICTION: PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-4102A/B.
4. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/25/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZBW
ATC FACILITY: BOS APP CON, BED ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZIMOT **STATE:** MA **COUNTRY:** US

LATITUDE/LONGITUDE: 423747.84N/0711027.33W- **TYPE:** WP, 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	LAWRENCE	LWM	VOR/DME	L	222.97	207.97	7.50	7.50		2000	17500
2	BOSTON	BOS	VOR/DME	H	349.42	333.42		18.29		2000	17500

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	NE	LWM	VOR/DME	222.97	222.97	L	1		2000	6000	4	6
2	NE		WP	043.97	223.97	L		4	2000	6000	4	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (25-000611)	423914.00N/0711300.00W	807	5D
2	200	TOWER (25-000611)	423914.00N/0711300.00W	807	5D

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

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
LAWRENCE (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	KBED	BEDFORD	MA (US)
IAP	RNAV (GPS) Z RWY 11		2	KBED	BEDFORD	MA (US)
IAP	RNAV (RNP) Y RWY 11		2	KBED	BEDFORD	MA (US)
IAP	VOR RWY 23	1, 2	1	KBED	BEDFORD	MA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 01/25/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZBW
ATC FACILITY: BOS APP CON, BED ATCT
OTHER:

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **BEDFORD** STATE: **MA**

AIRPORT NAME: **LAURENCE G HANSCOM FLD** ID: **KBED**

PROCEDURE: **RNAV (RNP) Y RWY 11** AMDT: **ORIG**

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 **3.82**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **097.05**
4. High Terrain in **FINAL** segment containing 1000' point **407**
5. Distance from **THLD*** to 1500' point **6.02**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point **096.96**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **624**
9. Threshold Coordinates (if straight-in) ... **422818.57N** / **0711801.23W**
10. ARP Coordinates ..... **422811.80N** / **0711720.40W**
11. Runway Approach End and distance furthest from ARP.....RWY **29**
    Distance **0.64** NM
12. FAF Coordinates ..... **422856.21N** / **0712449.96W**
    (Click to Select)

REMARKS: Approach/Drawing attached. * MULTIPLE SEGS USE 1000' AIRSPACE: LOBBY - ZELKA (RNP 1.0), HIDRI - ZELKA (RNP 1.0), ZELKA - TAYUB (RNP 1.0), WANLA - CESOL (RNP 1.0), ILEXE - TAYUB (RNP 1.0), CESOL - URTOQ (RNP 1.0), URTOQ - TAYUB (RNP 0.90), WIDKA TO URTOQ (RNP 1.0).