

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.33**

Bearings, headings, courses, tracks 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 feet RVR.

<b>AIRPORT ID</b> BVY	<b>PROCEDURE NAME</b> RNAV (GPS) RWY 16	<b>ORIGINAL/AMENDMENT</b> 2A	<b>CITY</b> BEVERLY	<b>STATE</b> MA
<b>AIRPORT ELEVATION</b> 107	<b>TDZE</b> 107	<b>SUPERSEDED</b> RNAV (GPS) RWY 16	<b>DATED</b> 06/17/2021	<b>MAG VAR</b> 16W
<b>FACILITY</b> RNAV	<b>COORDINATES OF FACILITIES</b>	<b>ACTUAL EFFECTIVE DATE</b>	<b>REQUIRED EFFECTIVE DATE</b> ROUTINE	<b>EPOCH YEAR</b> 1985
				<b>CANCEL/SUSPEND</b>

**TAA**

<b>FROM</b>	<b>FIX TYPE</b>	<b>TO</b>	<b>FIX TYPE</b>	<b>ALTITUDE</b>
1. 066/30 CW 247/30	NOPT	066/10 CW 247/10		3100
2. 066/10 CW 247/10		LADTI	IF/IAF	2000
3. 247/30 CW 337/30		NUVZA	IAF	2000
4. 337/30 CW 066/30		337/15 CW 066/15		3100
5. 337/15 CW 066/15		HAGET	IAF	2000

**TERMINAL ROUTES**

<b>FROM</b>	<b>FIX TYPE</b>	<b>TO</b>	<b>FIX TYPE</b>	<b>LEG TYPE</b>	<b>FO/FB</b>	<b>RNP</b>	<b>COURSE</b>	<b>DISTANCE</b>	<b>ALTITUDE</b>
HAGET	IAF	LADTI	NOPT	TF	FB	1.00	066.43	6.65	2000
NUVZA	IAF	LADTI	NOPT	TF	FB	1.00	246.59	6.65	2000
LADTI	IF/IAF	ZINDU		TF	FB	1.00	156.51	6.59	1800
ZINDU	FAF	RW16	MAP	TF	FO	0.30	156.58	5.19	
RW16	MAP	507 MSL		CA			156.58		
507 MSL		WAKBI		DF	FO	1.00			2000

**MISSED APPROACH**

**MAP:**

LNAV: RW16

**MISSED APPROACH INSTRUCTIONS:**

CLIMBING LEFT TURN TO 2000 DIRECT WAKBI AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



**PROFILE:**

- 1. **PT**                      **SIDE OF COURSE**                      **OUTBOUND**                      **FT WITHIN**                      **MILES OF** (IAF)
- 2. HOLD NW LADTI, RT, 156.51 INBOUND, 2000 IN LIEU OF PT (IAF), MAX 6000.
- 3. **FAC:** 156.58                      **FAF:** ZINDU                      **DIST FAF TO MAP:** 5.19                      **DIST FAF TO THLD:** 5.19
- 4. **MIN ALT:** LADTI 2000, ZINDU 1800
- 5. **DIST TO THLD FROM OM:**                      **MM:**                      **IM:**                      **150 HAT:**                      **GS ANT:**
- 6. **MIN GP INCPT:**                      **GP ALT AT FAF:**                      **OM:**                      **MM:**                      **IM:**
- 7. **GP ANGLE:**                      **34:1:** IS NOT CLEAR                      **20:1:** IS NOT CLEAR                      **TCH:**
- 8. **MSA FROM:**

**PBN REQUIREMENTS NOTE:**

RNP APCH - GPS.

**NOTES:**

CHART NOTE: RWY 16 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.  
 CHART NOTE: PROCEDURE NA AT NIGHT.  
 CHART PROFILE NOTE: VGSi AND DESCENT ANGLES NOT COINCIDENT (VGSi ANGLE {ANGLE}/TCH {FEET}).  
 CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LNAV CAT A AND B.  
 CHART NOTE: FOR INOPERATIVE ALS INCREASE LNAV CAT C AND D TO 1 3/8 SM.

**ADDITIONAL FLIGHT DATA:**

HOLD S, LT, 021.00 INBOUND.  
 FAS OBST: 368 AAO 423832N/0705948W.  
 ZINDU TO RW16: 3.00/40.

**MINIMUMS:**

**TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT**

**ALTERNATE:** NA  STANDARD - CAT D 800-2 1/4, NA WHEN LOCAL WEATHER NOT AVAILABLE.

CATEGORY:	A			B			C			D			E			
	FINAL TYPE	DA/MDA	VIS	HAT/HAA												
LNAV MDA	620	1	513	620	1	513	620	1 3/8	513	620	1 3/8	513				
CIRCLING	620	1	513	620	1	513	820	2	713	820	2 1/4	713				

**CHANGES - REASONS**

1. REMOVED LPV AND LNAV/VNAV FINAL SEGMENTS, LINES OF MINIMUMS AND LPV FAS DATA - VGS PENETRATIONS.
2. REMOVED VDP DATA - 20:1 PENETRATIONS EXIST AND PER 8260.3G PARA 2-6-5A(4).
3. CHANGED NOTE 'RWY 16 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED' TO 'RWY 16 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED' - 20:1 PENETRATIONS EXIST AND PER 8260.19K PARA. 8-6-12K(2).
4. REPLACED NOTE 'CIRCLING RWY 9 NA AT NIGHT' WITH 'PROCEDURE NA AT NIGHT' - 20:1 PENETRATIONS EXIST TO ALL RUNWAYS AND PER 8260.19K PARA. 8-6-12O(2)(A).
5. REMOVED NOTE 'FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18°C OR ABOVE 54°C' - LNAV/VNAV FINAL AND MINIMUMS REMOVED.
6. PROFILE LINE 7: 20:1 CHANGED FROM 'IS CLEAR' TO 'IS NOT CLEAR' - 20:1 PENETRATIONS EXIST TO RWY 16.
7. REMOVED "CHART CIRCLING ICON" FROM ADDITIONAL FLIGHT DATA - NO LONGER REQUIRED PER CRITERIA MEMORANDUM DATED 5/15/2025.
8. REDUCED LNAV CAT C/D VISIBILITY FROM 1 3/8 SM TO 1 1/4 SM - PER 8260.3G TABLE 3-3-1.
9. CHANGED NOTE 'INOPERATIVE TABLE DOES NOT APPLY' TO 'INOPERATIVE TABLE DOES NOT APPLY TO LNAV CAT A AND B' - LIGHT CREDIT NOT GIVEN DUE TO NON-STANDARD MALS 800 FT LENGTH.
10. ADDED NOTE 'FOR INOPERATIVE ALS INCREASE LNAV CAT C AND D TO 1 3/8 SM' - CAT C/D VISIBILITY REDUCTION.
11. ADDED 'ZINDU TO RW16: 3.00/40' TO ADDITIONAL FLIGHT DATA - REQUIRED FOR STRAIGHT-IN ALIGNED NON-PRECISION APPROACHES PER 8260.19K PARA. 8-6-11O(1).
12. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 600 THEN CLIMBING LEFT TURN TO 2000 DIRECT WAKBI AND HOLD" TO "CLIMBING LEFT TURN TO 2000 DIRECT WAKBI AND HOLD" - CLIMB TO ALTITUDE 600 REMOVED DUE TO BEING BELOW MDA 620.



**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**ORIGINAL/AMENDMENT**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**COORDINATED WITH:**

**A4A**  **ALPA**  **AOPA**  **APA**  **HAI**  **NBAA**

**OTHER:** ZBW, BOS APCH, BVY ATCT

**FLIGHT CHECKED BY**

JOHN KEARBY

*Digitally signed by*  
**CASIMIR L TABAKA**  
Dec 11, 2025

**OFFICE**

AJF

**DATE**

12/09/2025

**DEVELOPED BY**

RALPH DUMAR

*Digitally signed by*  
**CASIMIR L TABAKA**  
Dec 11, 2025

**OFFICE**

AJV-A422

**DATE**

**APPROVED BY**

BEV L BORDY

*Digitally signed by*  
**CASIMIR L TABAKA**  
Dec 11, 2025

**OFFICE**

AJV-A420

**DATE**

**TITLE**  
MANAGER



**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT ID</u> BVY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 16	<u>AMDT NO.</u> 2A	<u>CITY</u> BEVERLY	<u>STATE</u> MA	<u>AIRPORT ELEVATION</u> 107	<u>FACILITY</u> RNAV
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**PART A: OBSTRUCTION DATA SEGMENTS**

**STRAIGHT-IN AREA**

**FROM** 066/30 CW 247/30 **TO** 066/10 CW 247/10

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>						
<b>OBSTRUCTION</b>	<b>COORDINATES</b>	<b>ELEV MSL</b>	<b>HORZ</b>	<b>VERT</b>	<b>AC</b>	<b>ROC</b>	<b>OCS</b>	<b>CG</b>	<b>CGTA</b>	<b>ADJUSTMENTS</b>	<b>MIN ALT</b>
AAO	430639.00N/0713654.00W	1099	215	8	4B	2000					3100
TERRAIN	431103.00N/0711909.00W	1407 (1400)								AS1500	2900

**COMPUTATIONS**

ALT   KIAS   KTAS   HAA   VKTW   TR   BA   DTA   COURSE CHANGE   DVEB   VEB OCS   RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**

**STRAIGHT-IN AREA**

**FROM** 066/10 CW 247/10 **TO** LADTI

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>						
<b>OBSTRUCTION</b>	<b>COORDINATES</b>	<b>ELEV MSL</b>	<b>HORZ</b>	<b>VERT</b>	<b>AC</b>	<b>ROC</b>	<b>OCS</b>	<b>CG</b>	<b>CGTA</b>	<b>ADJUSTMENTS</b>	<b>MIN ALT</b>
TOWER (33-023160)	424900.40N/0711611.50W	869	50	20	2C	1000					1900
TERRAIN	425115.00N/0711533.00W	508 (500)								AS1500	2000

**COMPUTATIONS**

ALT   KIAS   KTAS   HAA   VKTW   TR   BA   DTA   COURSE CHANGE   DVEB   VEB OCS   RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**



**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**LEFT BASE AREA**

**FROM**  
247/30 CW 337/30

**TO**  
NUVZA

RNP                      DISTANCE                      PAT                      MAP                      HAT                      HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (25-000052)	424623.00N/0710559.00W	864	250	50	4D	1000				AT136	2000
TERRAIN	424230.00N/0710057.00W	347 (300)								AS1500	1800

**COMPUTATIONS**

ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**

**RIGHT BASE AREA**

**FROM**  
337/30 CW 066/30

**TO**  
337/15 CW 066/15

RNP                      DISTANCE                      PAT                      MAP                      HAT                      HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (25-000157)	422009.00N/0714255.00W	2048	500	50	5D	1000					3100
TERRAIN	422024.00N/0714221.00W	715 (700)								AS1500	2200

**COMPUTATIONS**

ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**



**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**RIGHT BASE AREA**

**FROM**  
337/15 CW 066/15

**TO**  
HAGET

RNP                      DISTANCE                      PAT                      MAP                      HAT                      HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (25-000052)	424623.00N/0710559.00W	864	250	50	4D	1000				AT136	2000
TERRAIN	423827.00N/0710627.00W	416 (400)								AS1500	1900

**COMPUTATIONS**

ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**

**INITIAL**

**FROM**  
HAGET

**TO**  
LADTI

RNP                      DISTANCE                      PAT                      MAP                      HAT                      HMAS  
1.00                      6.65

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (25-000052)	424623.00N/0710559.00W	864	250	50	4D	1000				AT136	2000
TERRAIN	424018.00N/0710636.00W	400 (400)								AS1500	1900

**COMPUTATIONS**

ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**



**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**INITIAL**

**FROM**  
NUVZA

**TO**  
LADTI

**RNP**  
1.00

**DISTANCE**  
6.65

**PAT**

**MAP**

**HAT**

**HMAS**

<b>OBSTRUCTION</b>	<b>COORDINATES</b>	<b>ELEV MSL</b>	<b>HORZ</b>	<b>VERT</b>	<b>AC</b>	<b>ROC</b>	<b>OCS</b>	<b>CG</b>	<b>CGTA</b>	<b>ADJUSTMENTS</b>	<b>MIN ALT</b>
TOWER (25-000052)	424623.00N/0710559.00W	864	250	50	4D	1000				AT136	2000
TERRAIN	424827.00N/0710315.00W	337 (300)								AS1500	1800

**COMPUTATIONS**

**ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE**

**SEGMENT REMARKS:**

**INTERMEDIATE**

**FROM**  
LADTI (IF/IAF)

**TO**  
ZINDU

**RNP**  
1.00

**DISTANCE**  
6.59

**PAT**

**MAP**

**HAT**

**HMAS**

<b>OBSTRUCTION</b>	<b>COORDINATES</b>	<b>ELEV MSL</b>	<b>HORZ</b>	<b>VERT</b>	<b>AC</b>	<b>ROC</b>	<b>OCS</b>	<b>CG</b>	<b>CGTA</b>	<b>ADJUSTMENTS</b>	<b>MIN ALT</b>
TOWER (25-000052)	424623.00N/0710559.00W	864	250	50	4D	500				AT436	1800
TERRAIN	424048.00N/0710500.00W	377 (400)								AS1000	1400

**COMPUTATIONS**

**ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE**

**SEGMENT REMARKS:**



**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**FINAL: LNAV**

**FROM**  
ZINDU

**TO**  
RW16

**RNP**  
0.30

**DISTANCE**  
5.19

**PAT**

**MAP**  
RW16

**HAT**  
513

**HMAS**

<b>OBSTRUCTION</b>	<b>COORDINATES</b>	<b>ELEV MSL</b>	<b>HORZ</b>	<b>VERT</b>	<b>AC</b>	<b>ROC</b>	<b>OCS</b>	<b>CG</b>	<b>CGTA</b>	<b>ADJUSTMENTS</b>	<b>MIN ALT</b>
AAO	423832.06N/0705947.63W	368	50	20	2C	250					620

**COMPUTATIONS**

ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**

**HOLD-IN-LIEU OF PT**

**FROM**  
LADTI

**TO**  
P-4

**RNP**

**DISTANCE**

**PAT**  
P-4

**MAP**

**HAT**

**HMAS**

<b>OBSTRUCTION</b>	<b>COORDINATES</b>	<b>ELEV MSL</b>	<b>HORZ</b>	<b>VERT</b>	<b>AC</b>	<b>ROC</b>	<b>OCS</b>	<b>CG</b>	<b>CGTA</b>	<b>ADJUSTMENTS</b>	<b>MIN ALT</b>
TOWER (33-023160)	424900.40N/0711611.50W	869	50	20	2C	1000					1900
TERRAIN	425115.00N/0711533.00W	508 (500)								AS1500	2000

**COMPUTATIONS**

ALT    KIAS    KTAS    HAA    VKTW    TR    BA    DTA    COURSE CHANGE    DVEB    VEB OCS    RF CENTER FIX/DISTANCE

**SEGMENT REMARKS:**



**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**MISSED APPROACH: LNAV**

**FROM** RW16 **TO** WAKBI

**RNP**  
0.30-1.00

**DISTANCE**

**PAT**

**MAP**

**HAT**

**HMAS**  
520

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				2000
WINDMILL (25-022334)	424302.66N/0705048.38W	481	500	50	5D	1000					1500
TERRAIN	424218.00N/0705333.00W	265 (300)								AS1500	1800

**COMPUTATIONS**

**ALT** **KIAS** **KTAS** **HAA** **VKTW** **TR** **BA** **DTA** **COURSE CHANGE** **DVEB** **VEB OCS** **RF CENTER FIX/DISTANCE**

**SEGMENT REMARKS:**

**CIRCLING**  ALL CATS  CAT A  CAT B  CAT C  CAT D  CAT E  NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
TREE (25-084419)	423511.82N/0705632.05W	1.30	513	299	20	3	1A	300		SI	620
CATEGORY B											
TREE (25-084419)	423511.82N/0705632.05W	1.81	513	299	20	3	1A	300		SI	620
CATEGORY C											
TOWER (25-025125)	423549.05N/0705901.27W	2.84	713	454	500	50	5D	300		AC50	820
CATEGORY D											
TOWER (25-025125)	423549.05N/0705901.27W	3.71	713	454	500	50	5D	300		AC50	820

**CIRCLING REMARKS:**

**MSA/ESA**

**CENTER** **RADIUS**

**REMARKS:**

**NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:**

VEGETATION HEIGHT OF 100 FEET PER FPT.

LPV AND LNAV/VNAV NA: VGS PENETRATIONS.

LIGHT CREDIT NOT GIVEN DUE TO NON-STANDARD MALS: 800 FT.



**AIRPORT ID**  
BVY

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**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**PART B: SUPPLEMENTAL DATA**

**COMMUNICATIONS WITH**

BOS APP CON, BVY TOWER

**WX SERVICE**  
ASOS

**LOCATION**  
BVY

**HRS OPERATION**  
24

**ALTIMETER SOURCE**  
BVY

**DISTANCE**

**WMSCR**  
Y

**ADJUSTMENTS**  
0

**BACK-UP WX SERVICE**  
ASOS

**LOCATION**  
LWM

**HRS OPERATION**  
24

**ALTIMETER SOURCE**  
LWM

**DISTANCE**  
12.15

**WMSCR**  
Y

**ADJUSTMENTS**  
32

**WX REMARKS:**

RASS PRESSURE PATTERNS THE SAME  
KBYV 107, KLWM 136  
RA = 31.9.

**PRIMARY NAVAID**

**MONITOR POINT**

**HRS OPERATION**

**CAT**

<b>APPROACH AND RUNWAY LIGHTING SYSTEM</b>	<b>RUNWAY MARKINGS</b>	<b>RUNWAY VISUAL RANGE</b>
RW16 - MALS (PCL), MIRL (PCL), PAPI-4L (PCL)	NPI-F	
RW34 - REIL (PCL), MIRL (PCL)	NPI-F	
RW09 - MIRL (PCL), PAPI-4L (PCL)	NPI-G	
RW27 - MIRL (PCL), PAPI-4L (PCL)	NPI-G	

**GLIDESLOPE ANGLE**

**ELEV RWY THRESHOLD**

**TCH**

**ELEV GS ANTENNA**

**DISTANCE FROM RWY**

**VGSI ANGLE**  
3.50

**TCH**  
41.3

**FINAL APPROACH COURSE AIMING**

RUNWAY THRESHOLD  
ON CENTERLINE

FT FROM THRESHOLD  
FT FROM CENTERLINE

DISPLACED THRESHOLD DISTANCE 240

**CRITICAL TEMPERATURES**

**CRITICAL LOW**

**CRITICAL HIGH**

**ACT**

**APT ISA**

**CRITICAL TEMPERATURE REMARKS:**

**"VISUAL PORTION OF FINAL" PENETRATIONS**

FINAL TYPE	CIRCLING RWY 27
20:1	
149 TREE (25-048708) 423504.1400N/0705416.3400W (7.89)	124 TREE (25-048848) 423459.9600N/0705421.5400W (7.34)
148 TREE (25-084661) 423504.4200N/0705416.4600W (6.94)	140 TREE (25-083299) 423503.6900N/0705417.9900W (5.45)
119 TREE (25-082958) 423501.4000N/0705422.5000W (3.83)	126 TREE (25-048677) 423503.5100N/0705421.1500W (3.07)

QUALITY  
37  
CHECKED

**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

131 TREE (25-084269) 423502.6900N/0705418.8000W (0.74)		
FINAL TYPE	CIRCLING RWY 34	
20:1		
112 TREE (25-084051) 423449.4600N/0705435.9400W (25.37)		115 TREE (25-083900) 423448.4600N/0705434.9500W (22.11)
100 TREE (25-084008) 423449.6000N/0705435.5400W (12.97)		111 TREE (25-083355) 423447.1000N/0705433.6700W (9.75)
113 TREE (25-083539) 423446.7700N/0705433.1500W (9.23)		99 TREE (25-084782) 423448.9600N/0705435.1400W (8.52)
107 TREE (25-084385) 423447.6100N/0705433.8400W (8.15)		114 TREE (25-083280) 423446.3800N/0705432.3800W (6.88)
116 TREE (25-084568) 423446.1100N/0705431.5200W (5.78)		140 TREE (25-083746) 423444.3400N/0705423.4600W (3.73)
97 TREE (25-083161) 423448.6000N/0705434.3000W (3.12)		86 TREE (25-084015) 423450.0700N/0705436.3500W (2.73)
107 TREE (25-084153) 423446.9900N/0705432.4900W (2.52)		
FINAL TYPE	CIRCLING RWY 9	
20:1		
115 VEGETATION (25-048666) 423448.0000N/0705536.8900W (26.78)		110 TREE (25-020379) 423448.0200N/0705536.9100W (21.73)
99 TREE (25-020383) 423446.7900N/0705535.9300W (12.57)		98 TREE (25-083119) 423447.7800N/0705536.7900W (9.84)
92 TREE (25-020371) 423444.8200N/0705534.0900W (9.5)		96 VEGETATION (25-048648) 423446.9700N/0705536.0300W (9.46)
96 VEGETATION (25-048664) 423446.1500N/0705535.8600W (8.95)		93 TREE (25-020375) 423446.9600N/0705535.5000W (8.36)
104 TREE (25-082966) 423445.3300N/0705538.4000W (6.68)		86 TREE (25-084304) 423447.5900N/0705534.6400W (5.32)
108 TREE (25-048671) 423445.1500N/0705539.9300W (4.92)		79 TREE (25-082983) 423445.0800N/0705532.2400W (3.51)
92 VEGETATION (25-048667) 423444.4000N/0705535.7000W (3.12)		78 TREE (25-083844) 423447.2100N/0705533.3600W (1.4)
89 TREE (25-083333) 423445.7900N/0705535.8900W (1.35)		79 VEGETATION (25-048639) 423444.5500N/0705532.8000W (0.77)
FINAL TYPE	LNAV RWY 16	
20:1		
176 TREE (25-084545) 423537.9800N/0705530.2300W (12.81)		154 TREE (25-048908) 423535.4400N/0705528.7200W (4.34)
174 TREE (25-084437) 423539.6000N/0705530.6200W (3.55)		171 TREE (25-083145) 423539.3600N/0705530.4800W (1.82)
FINAL TYPE	LNAV RWY 16	
34:1		
174 TREE (25-084320) 423538.8800N/0705533.9700W (26.62)		177 TREE (25-048654) 423544.5400N/0705527.4300W (25.72)
172 TREE (25-083618) 423540.4700N/0705530.7100W (25.51)		174 TREE (25-084694) 423541.5600N/0705531.8900W (23.35)
172 TREE (25-083142) 423541.3900N/0705530.8200W (23.24)		176 TREE (25-084105) 423542.6700N/0705532.0500W (22.58)
174 TREE (25-051035) 423541.5500N/0705532.4900W (22.54)		163 TREE (25-084765) 423538.0200N/0705530.6300W (22.26)
170 TREE (25-083531) 423543.2300N/0705527.0600W (22.25)		163 TREE (25-048779) 423541.6300N/0705525.7800W (20.72)
170 TREE (25-084328) 423541.7700N/0705530.6900W (20.55)		178 TREE (25-048681) 423543.1300N/0705534.5200W (20.07)
174 TREE (25-082856) 423542.9100N/0705532.1000W (19.95)		180 TREE (25-084746) 423543.1100N/0705536.3000W (19.63)
173 TREE (25-048657) 423543.7400N/0705530.5000W (19.28)		178 TREE (25-084368) 423542.9700N/0705535.4800W (19.1)
162 TREE (25-084355) 423539.5200N/0705530.0700W (18.59)		180 TREE (25-084006) 423542.7900N/0705538.2000W (17.72)



<u>AIRPORT ID</u> BVY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 16	<u>AMDT NO.</u> 2A	<u>CITY</u> BEVERLY	<u>STATE</u> MA	<u>AIRPORT ELEVATION</u> 107	<u>FACILITY</u> RNAV
179 TREE (25-048990) 423544.5000N/0705534.7700W (17.57)						173 TREE (25-083654) 423543.0100N/0705533.1300W (17.29)
149 TREE (25-083102) 423535.5600N/0705528.2800W (17.2)						169 TREE (25-084240) 423543.0800N/0705530.6500W (16.59)
175 TREE (25-083513) 423544.4500N/0705532.7200W (16.54)						150 TREE (25-084882) 423536.0400N/0705528.7200W (16.48)
178 TREE (25-084378) 423543.1200N/0705537.4600W (15.99)						164 TREE (25-083295) 423540.3600N/0705532.3000W (15.54)
171 TREE (25-048661) 423544.7300N/0705530.4100W (15.12)						170 TREE (25-083708) 423542.3000N/0705533.7100W (15.11)
179 TREE (25-048992) 423542.9500N/0705539.4200W (14.65)						179 TREE (25-082800) 423543.8500N/0705538.2300W (14.23)
158 TREE (25-082939) 423541.7600N/0705526.8700W (13.9)						179 TREE (25-048993) 423545.8500N/0705535.7500W (13.09)
168 TREE (25-083755) 423544.5800N/0705530.2200W (12.73)						150 TREE (25-084169) 423537.0600N/0705529.9400W (12.43)
173 TREE (25-048682) 423542.0700N/0705538.5300W (11.91)						170 TREE (25-084613) 423542.4600N/0705535.8900W (11.7)
163 TREE (25-084926) 423544.7000N/0705527.2000W (11.67)						173 TREE (25-083817) 423543.7300N/0705536.0800W (11.51)
158 POLE (25-000473) 423541.0000N/0705530.0000W (11.28)						167 TREE (25-020274) 423544.7300N/0705530.4600W (11.05)
162 VEGETATION (25-048656) 423543.5700N/0705529.5400W (10.01)						166 TREE (25-083443) 423544.6600N/0705531.0200W (9.43)
175 TREE (25-084361) 423545.9300N/0705535.4900W (9.27)						152 TREE (25-048781) 423540.6000N/0705528.0100W (8.98)
157 VEGETATION (25-048649) 423540.1100N/0705533.0200W (8.11)						162 VEGETATION (25-048658) 423543.5200N/0705531.5100W (7.37)
141 TREE (25-020281) 423536.5100N/0705528.9000W (6.15)						172 TREE (25-084279) 423544.7700N/0705537.5300W (6.09)
152 VEGETATION (25-048805) 423542.6800N/0705526.7000W (6.02)						169 TREE (25-084769) 423545.4000N/0705534.7800W (5.48)
168 VEGETATION (25-048991) 423542.9300N/0705538.4900W (4.99)						138 TREE (25-084221) 423536.2900N/0705528.2200W (4.61)
159 VEGETATION (25-051034) 423545.2600N/0705528.6400W (4.37)						148 TREE (25-082965) 423541.4400N/0705527.1900W (4.19)
140 TREE (25-084106) 423536.8800N/0705528.9900W (4.17)						155 TREE (25-048653) 423543.3700N/0705529.1700W (3.98)
154 TREE (25-084222) 423539.3900N/0705535.1400W (3.81)						162 TREE (25-083802) 423542.1000N/0705536.4700W (3.72)
151 VEGETATION (25-048628) 423542.0300N/0705529.5100W (2.59)						166 TREE (25-084874) 423546.1800N/0705533.9500W (1.84)
142 VEGETATION (25-051033) 423538.1200N/0705530.5400W (1.16)						166 TREE (25-051037) 423546.3400N/0705534.2100W (1.11)
168 TREE (25-082908) 423546.3800N/0705535.8500W (0.73)						167 VEGETATION (25-048994) 423544.6300N/0705538.1400W (0.56)
109 LIGHTING (25-083937) 423530.8200N/0705519.4200W (0.48)						109 LIGHTING (25-047586) 423531.1100N/0705518.9700W (0.44)
<b><u>PENETRATIONS REMARKS:</u></b>						

**HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS**

and/or

**5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS**

<b><u>PENETRATIONS REMARKS:</u></b>

QUALITY  
37  
CHECKED

**AIRPORT ID**  
BVY

**PROCEDURE NAME**  
RNAV (GPS) RWY 16

**AMDT NO.**  
2A

**CITY**  
BEVERLY

**STATE**  
MA

**AIRPORT ELEVATION**  
107

**FACILITY**  
RNAV

**PART C: GENERAL REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

VDP NOT ESTABLISHED - 20:1 PENETRATIONS.

FOR CONTINGENCY PURPOSES:

WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE LWM ALTIMETER SETTING: INCREASE ALL MDAS 40 FEET AND LNAV VISIBILITY CAT C/D 1/8 SM CIRCLING VISIBILITY CAT C/D 1/4 SM.

ORDER 8260.3 CHAPTER 2 APPLIED TO 378 AAO 423845.00N/0710021.00W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

**PART D: AIRSPACE**

**DOCKET #**

**ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE**

<b>DISTANCE FROM</b>	THLD	<b>TO 1000FT POINT</b>	10.58
<b>WIDTH OF</b>	INTERMEDIATE	<b>SEGMENT AT 1000FT POINT</b>	4.00
<b>TRUE COURSE OF</b>	INTERMEDIATE	<b>SEGMENT CONTAINING 1000FT POINT</b>	140.51
<b>HIGH TERRAIN IN</b>	INTERMEDIATE	<b>SEGMENT CONTAINING 1000FT POINT</b>	400
<b>DISTANCE FROM</b>	THLD	<b>TO 1500FT POINT</b>	11.58
<b>WIDTH OF</b>	INTERMEDIATE	<b>SEGMENT AT 1500FT POINT</b>	4.00
<b>TRUE COURSE OF</b>	INTERMEDIATE	<b>SEGMENT CONTAINING 1500FT POINT</b>	140.51
<b>HIGH TERRAIN IN</b>	INTERMEDIATE	<b>SEGMENT CONTAINING 1500FT POINT</b>	400

**THRESHOLD COORDINATES (IF STR-IN)**

423529.17N/0705516.90W

**ARP COORDINATES**

423502.91N/0705458.12W

**RUNWAY APCH END AND DIST FURTHEST FROM ARP**

RUNWAY 16 DISTANCE 0.53 NM

**FAF COORDINATES**

423929.90N/0705944.57W

**FIX NAME COORDINATES**

**REMARKS**

TAA: HAGET (IAF) 424021.24N/0711222.74W, NUVZA (IAF) 424848.85N/0705826.94W, LADTI (IF/IAF) 424435.26N/0710525.31W. 30NM RADIUS.  
THLD DISPLACED 240FT, ACTUAL COORDINATES: 423531.00N/0705518.93W

**PART E: PREPARED BY**

<b>NAME</b>	<b>OFFICE</b>	<b>DATE</b>	<b>TITLE</b>
RALPH DUMAR	AJV-A422		

