

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23

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.

| | | | | | | |
|--------------------------------|----------------------------------|---------------------------------|---|----------------------------|-----------------------|---------------------------|
| <u>AIRPORT ID</u> KBOS | <u>PROCEDURE NAME</u> VOR-A | <u>ORIGINAL/AMENDMENT</u> 1C | <u>CITY</u> BOSTON | <u>STATE</u> MA | | |
| <u>AIRPORT ELEVATION</u> 19 | <u>TDZE</u> | <u>SUPERSEDED</u> VOR/DME-A | <u>ORIGINAL/AMENDMENT</u> 1B | <u>DATED</u> 01/28/2021 | <u>MAG VAR</u> 16W | <u>EPOCH YEAR</u> 1995 |
| <u>FACILITY</u> BOS | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u> | <u>REQUIRED EFFECTIVE DATE</u> ROUTINE | <u>CANCEL/SUSPEND</u> | | |

TERMINAL ROUTES

| <u>FROM</u> | <u>FIX TYPE</u> | <u>TO</u> | <u>FIX TYPE</u> | <u>LEG TYPE</u> | <u>FO/FB</u> | <u>RNP</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> |
|-------------------------------|-----------------|-------------------------------|-----------------|-----------------|--------------|------------|---------------|-----------------------------------|-----------------|
| TONNI INT | IAF | KYLES INT/BOS 13.94 DME/RADAR | | | | | 225.54 | 7.76 (SEY R-046) (BOS LR-122) | 4000 |
| BURDY/SEY 54.99 DME | IAF | KYLES INT/BOS 13.94 DME/RADAR | | | | | 045.54 | 21.51 (BOS R-046) (BOS LR-139) | 4000 |
| KYLES INT/BOS 13.94 DME/RADAR | IF | MINNT/BOS 10.00 DME/RADAR | | | | | 310.00 | 3.94 (BOS R-130) | 3000 |
| MINNT/BOS 10.00 DME/RADAR | | BEEJE/BOS 5.00 DME/RADAR | | | | | 310.00 | 5.00 (BOS R-130) | 1500 |

MISSED APPROACH

MAP:

BOS VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1500 THEN CLIMBING RIGHT TURN TO 3000 ON BOS VOR/DME R-030 TO WAXEN/BOS 14.04 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT KYLES
3. FAC: 310.00 FAF: BEEJE/BOS 5.00 DME/RADAR DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT: KYLES INT/BOS 13.94 DME/RADAR 4000, MINNT/BOS 10.00 DME/RADAR 3000, BEEJE/BOS 5.00 DME/RADAR 1500
8. MSA FROM: BOS VOR/DME 215-305 2500, 305-215 2000

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:



CHART NOTE: CIRCLING NA TO RWY 14.
CHART NOTE: CIRCLING NA FOR CATS C AND D WEST OF RWYS 4L AND 15R.

ADDITIONAL FLIGHT DATA:

CHART 639: BLDG 422120N/0710308W.
CHART: 700 BLDG 422108N/0710323W.
HOLD NE, LT, 209.99 INBOUND.
FAS OBST: 327 AAO 421827N/0705306W.
FAC CROSSES MIDPOINT OF RWY 04R-22L.
CHART CIRCLING ICON.

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

ALTERNATE: NA ☐ CAT A 1000-2, CAT B, C, D 1100-2

| CATEGORY: | A | | | B | | | C | | | D | | | E | | |
|------------|--------|-------|---------|--------|-------|---------|--------|-------|---------|--------|-----|---------|--------|-----|---------|
| FINAL TYPE | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA |
| CIRCLING | 940 | 1 1/4 | 921 | 1040 | 1 1/2 | 1021 | 620 | 1 3/4 | 601 | 620 | 2 | 601 | | | |

CHANGES - REASONS

INCORPORATED ALL CHANGES FROM AMENDMENT 1B.

- PROCEDURE NAME CHANGED FROM VOR/DME-A TO VOR-A - IAW 8260.19H 4-1-5 A (1)
- DME REQUIRED ADDED TO EQUIPMENT REQUIREMENTS NOTES - 8260.19H 4-1-5 A (1)
- ALL INSTANCES OF WAXEN CHANGED FROM WAXEN INT/BOS 14.04 DME TO WAXEN/BOS 14.04 DME - MHT VORMON, FIX IS NO LONGER AN INTERSECTION.
- MISSED APPROACH INSTRUCTIONS CHANGED FROM "CLIMB TO 1500 THEN CLIMBING RIGHT TURN TO 3000 ON BOS VOR/DME R-030 TO WAXEN INT/BOS 14.04 DME AND HOLD" TO "CLIMB TO 1500 THEN CLIMBING RIGHT TURN TO 3000 ON BOS VOR/DME R-030 TO WAXEN /BOS 14.04 DME AND HOLD" - WAXEN IS NO LONGER AN INTERSECTION FIX DUE TO MHT VOR MON.
- ALL INSTANCES OF FIX BURDY CHANGED FROM BURDY/SEY 54.98 DME TO BURDY/SEY 54.99 DME - DME ANTENNA COORDINATES UPDATED.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, BOS ATCT, BOS AMGR

FLIGHT CHECKED BY
PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

DEVELOPED BY
TYLER MITCHELL
*Digitally signed by
TYLER D MITCHELL
Nov 19, 2020*

APPROVED BY
LONNIE EVERHART
*Digitally signed by
JON DENTON
Jan 04, 2021*

OFFICE
*Digitally signed by
JON DENTON
Jan 05, 2021*

DATE
AJV-A432
09/17/2020

OFFICE
AJV-A430
DATE
TITLE
MANAGER



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

| AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY | STATE | AIRPORT ELEVATION | FACILITY |
|------------|----------------|----------|--------|-------|-------------------|----------|
| KBOS | VOR-A | 1C | BOSTON | MA | 19 | BOS |

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM
TONNI INT

TO
KYLES INT/BOS 13.94 DME/RADAR

| <u>RNP</u> | <u>DISTANCE</u> 7.76 | <u>PAT</u> | <u>MAP</u> | <u>HAT</u> | | | <u>HMAS</u> | | | | | |
|--------------------|-------------------------|------------|-----------------|-------------|-------------|-----------|-------------|------------|-----------|-------------|--------------------|----------------|
| <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> |
| 1.AAO | 421233.00N/0704409.00W | | 273 | 164 | 98 | 4E | 1000 | | | | AT2727 | 4000 |
| 2.TERRAIN | 421233.00N/0704409.00W | | 73 (100) | | | | | | | | AS1500 | 1600 |

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL

FROM
BURDY/SEY 54.99 DME

TO
KYLES INT/BOS 13.94 DME/RADAR

| <u>RNP</u> | <u>DISTANCE</u> | <u>PAT</u> | <u>MAP</u> | <u>HAT</u> | | | <u>HMAS</u> | | | | |
|---------------------|------------------------|-----------------|-------------|-------------|-----------|------------|-------------|-----------|-------------|--------------------|----------------|
| | 21.51 | | | | | | | | | | |
| <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> |
| 3.TOWER (25-021031) | 420639.96N/0704215.15W | 559 | 50 | 20 | 2C | 1000 | | | | AT2441 | 4000 |
| 4.TERRAIN | 420733.00N/0704345.00W | 289 (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
KYLES INT/BOS 13.94 DME/RADAR

TO
MINNT/BOS 10.00 DME/RADAR

| RNP | DISTANCE 3.94 | PAT | MAP | HAT | | | HMAS | | | | | |
|-------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION | COORDINATES | | ELEV MSL | HORZ | VERT | AC | ROC | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| 5.AAO | 421345.00N/0704645.00W | | 305 | 164 | 98 | 4E | 500 | | | | AT2097 AC98 | 3000 |
| 6.TERRAIN | 421345.00N/0704645.00W | | 105 (100) | | | | | | | | AS1500 | 1600 |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM
MINNT/BOS 10.00 DME/RADAR

TO
BEEJE/BOS 5.00 DME/RADAR

| RNP | DISTANCE 5.00 | PAT | MAP | HAT | | | HMAS | | | | | |
|-------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION | COORDINATES | | ELEV MSL | HORZ | VERT | AC | ROC | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| 7.AAO | 421826.70N/0705306.41W | | 327 | 50 | 20 | 2C | 500 | | | | AT673 | 1500 |
| 8.TERRAIN | 421826.70N/0705306.41W | | 127 (100) | | | | | | | | AS1000 | 1100 |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL

FROM
BEEJE/BOS 5.00 DME/RADAR

TO
BOS VOR/DME

| RNP | DISTANCE 4.99 | PAT | MAP BOS VOR/DME | HAT | | | HMAS | | | | | |
|-------------|------------------------|-----|--------------------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION | COORDINATES | | ELEV MSL | HORZ | VERT | AC | ROC | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| 7.AAO | 421826.70N/0705306.41W | | 327 | 50 | 20 | 2C | 250 | | | | | 580 |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH

FROM
BOS VOR/DME

TO
WAXEN/BOS 14.04 DME

| RNP | DISTANCE | PAT | MAP | HAT | | | HMAS 390 | | | | | |
|--------------------|------------------------|-----|-----------|------|------|----|-------------|-----|----|------|-------------|---------|
| OBSTRUCTION | COORDINATES | | ELEV MSL | HORZ | VERT | AC | ROC | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| | | | | | | | | ASC | | | | 3000 |
| 9.BLDG (25-000519) | 422108.22N/0710323.23W | | 700 | 20 | 3 | 1A | 1000 | | | | | 1700 |
| 10.TERRAIN | 422654.00N/0710515.00W | | 325 (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 | | | | | | | | | | | |
| 11.BUILDING (25-000430) | 422120.28N/0710307.73W | 1.30 | 921 | 639 | 20 | 3 | 1A | 300 | | | 940 |
| CATEGORY B | | | | | | | | | | | |
| 12.BLDG_TWR (25-025111) | 422121.40N/0710334.86W | 1.81 | 1021 | 730 | 20 | 3 | 1A | 300 | | | 1040 |
| CATEGORY C | | | | | | | | | | | |
| 13.TANK (25-000427) | 422403.30N/0710149.20W | 2.84 | 601 | 301 | 20 | 20 | 1C | 300 | | | 620 |
| CATEGORY D | | | | | | | | | | | |
| 13.TANK (25-000427) | 422403.30N/0710149.20W | 3.70 | 601 | 301 | 20 | 3 | 1A | 300 | | | 620 |

CIRCLING REMARKS:

MSA

CENTER

BOS VOR/DME

RADIUS

25

| SECTOR | OBSTRUCTION | COORDINATES | BEARING | DISTANCE | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
|---------|-------------------|------------------------|---------|----------|----------|------|------|----|------|-----|-------------|---------|
| 215-305 | TOWER (25-000619) | 422302.73N/0712935.33W | 290 | 22.4 | 1462 | 50 | 3 | 2A | 1000 | | | 2500 |
| 305-215 | TOWER (25-000538) | 421449.10N/0710253.50W | 218 | 22.5 | 990 | 250 | 50 | 4D | 1000 | | | 2000 |

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

FIX MINNT PLACED AT ATC REQUEST TO KEEP APPROACH AIRCRAFT WITHIN CLASS B AREA.

ATC DESIRES TO ALLOW SMALL AIRCRAFT (CAT A/B) TO CIRCLING TO RWY 04L, BUT DOES NOT WANT CAT C/D TO CIRCLE WEST DUE TO AN UNREASONABLY HIGH CIRCLING MDA.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
BOS TOWER, BOS APP CON

| | | | | | | |
|---------------------------|-------------------------|----------------------------|---------------------------------|----------------------|-----------------------|-------------------------|
| <u>WX SERVICE</u> ASOS | <u>LOCATION</u> KBOS | <u>HRS OPERATION</u> 24 | <u>ALTIMETER SOURCE</u> KBOS | <u>DISTANCE</u> 0 | <u>SERVICE-A</u> Y | <u>ADJUSTMENTS</u> 0 |
| <u>BACK-UP WX SERVICE</u> | <u>LOCATION</u> | <u>HRS OPERATION</u> | <u>ALTIMETER SOURCE</u> | <u>DISTANCE</u> | <u>SERVICE-A</u> | <u>ADJUSTMENTS</u> |

WX REMARKS:
NO BACKUP ALTIMETER DESIGNATED, REDUNDANT ALTIMETER AVAILABLE.
KBOS ON SERVICE A.

| | | | |
|--|------------------------------|----------------------------|------------------------------|
| <u>PRIMARY NAVAID</u> BOS VOR/DME | <u>MONITOR POINT</u> AOCC | <u>HRS OPERATION</u> 24 | <u>CAT</u> 1 |
| <u>APPROACH AND RUNWAY LIGHTING SYSTEM</u> | | <u>RUNWAY MARKINGS</u> | <u>RUNWAY VISUAL RANGE</u> |
| RW09 - HIRL, C/LINE | | BSC-G | APPROACH, ROLL OUT |
| RW14 - HIRL | | BSC-G | |
| RW15L - MIRL | | BSC-G | |
| RW33R - MIRL | | BSC-G | |
| RW04L - HIRL, REIL, C/LINE, PAPI-4L | | PIR-G | APPROACH, ROLL OUT |
| RW04R - TDZ, ALSF-2, HIRL, C/LINE, PAPI-4L | | PIR-G | APPROACH, MIDPOINT, ROLL OUT |
| RW15R - TDZ, MALSR, HIRL, C/LINE, PAPI-4L | | PIR-G | APPROACH, MIDPOINT, ROLL OUT |
| RW22L - MALSF, HIRL, C/LINE, PAPI-4R | | PIR-G | APPROACH, MIDPOINT, ROLL OUT |
| RW22R - HIRL, C/LINE, PAPI-4L | | PIR-G | APPROACH, ROLL OUT |
| RW27 - HIRL, REIL, C/LINE, PAPI-4L | | PIR-G | APPROACH, ROLL OUT |
| RW32 - HIRL, REIL, PAPI-4L | | PIR-G | |
| RW33L - TDZ, ALSF-2, HIRL, C/LINE, PAPI-4R | | PIR-G | APPROACH, MIDPOINT, ROLL OUT |

| | | | | | | |
|-------------------------------------|---------------------------|--------------------|------------------------------|--------------------------|-------------------|------------|
| <u>GLIDESLOPE ANGLE</u> | <u>ELEV RWY THRESHOLD</u> | <u>TCH</u> | <u>ELEV GS ANTENNA</u> | <u>DISTANCE FROM RWY</u> | <u>VGSI ANGLE</u> | <u>TCH</u> |
| <u>FINAL APPROACH COURSE AIMING</u> | | | | | | |
| RUNWAY THRESHOLD | <input type="checkbox"/> | FT FROM THRESHOLD | DISPLACED THRESHOLD DISTANCE | | | |
| ON CENTERLINE | <input type="checkbox"/> | FT FROM CENTERLINE | | | | |



CRITICAL TEMPERATURES

CRITICAL LOW

CRITICAL HIGH

ACT

APT ISA

CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

| | | | |
|--|--------|--|--|
| Final Type | RWY 14 | | |
| 20:1 | | | |
| 191 BLDG (25-000534) 422132.11N/0710138.07W (115.8) | | 226 MOBILE CRANE (KBOS0087) 422146.27N/0710155.35W (56.36) | |
| 227 CRANE (25-000233) 422142.00N/0710201.00W (52.72) | | | |

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

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

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FAC CROSSES MID POINT OF RWY 4R-22L 422126.82N/0705922.37W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



| | | | | | | |
|---------------------------|--------------------------------|-----------------------|-----------------------|--------------------|--------------------------------|------------------------|
| <u>AIRPORT ID</u> KBOS | <u>PROCEDURE NAME</u> VOR-A | <u>AMDT NO.</u> 1C | <u>CITY</u> BOSTON | <u>STATE</u> MA | <u>AIRPORT ELEVATION</u> 19 | <u>FACILITY</u> BOS |
|---------------------------|--------------------------------|-----------------------|-----------------------|--------------------|--------------------------------|------------------------|

PART D: AIRSPACE

DOCKET #

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

| | | | |
|-----------------|--------------|---------------------------------|--------|
| DISTANCE FROM | MAP | TO 1000FT POINT | 3.66 |
| WIDTH OF | FINAL | SEGMENT AT 1000FT POINT | 2.37 |
| TRUE COURSE OF | FINAL | SEGMENT CONTAINING 1000FT POINT | 294.00 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 100 |
| DISTANCE FROM | MAP | TO 1500FT POINT | 7.19 |
| WIDTH OF | INTERMEDIATE | SEGMENT AT 1500FT POINT | 3.86 |
| TRUE COURSE OF | INTERMEDIATE | SEGMENT CONTAINING 1500FT POINT | 294.00 |
| HIGH TERRAIN IN | INTERMEDIATE | SEGMENT CONTAINING 1500FT POINT | 100 |

THRESHOLD
COORDINATES
(IF STR-IN)

ARP COORDINATES422146.60N/0710023.00W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 22R DISTANCE 0.92 NM

FAF
COORDINATES

421924.62N/0705312.93W

FIX NAME
COORDINATES

MAP BOSTON VOR/DME: 422126.82N/0705922.37W, IAF KYLES: 421545.25N/0704213.34W

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED

QUALITY
19
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

Page 7 of 8

PART E: PREPARED BY

| | | | |
|-------------------------------|---------------------------|---------------------------|---|
| <u>NAME</u> TYLER MITCHELL | <u>OFFICE</u> AJV-A432 | <u>DATE</u> 09/17/2020 | <u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST |
|-------------------------------|---------------------------|---------------------------|---|

