

16315

AIRPORT DIAGRAM

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

AL-58 (FAA)

BOSTON, MASSACHUSETTS

ATIS ARR 135.0

DEP 135.0

BOSTON TOWER

128.8 257.8

Helicopters 124.725

GND CON

121.9

CLNC DEL

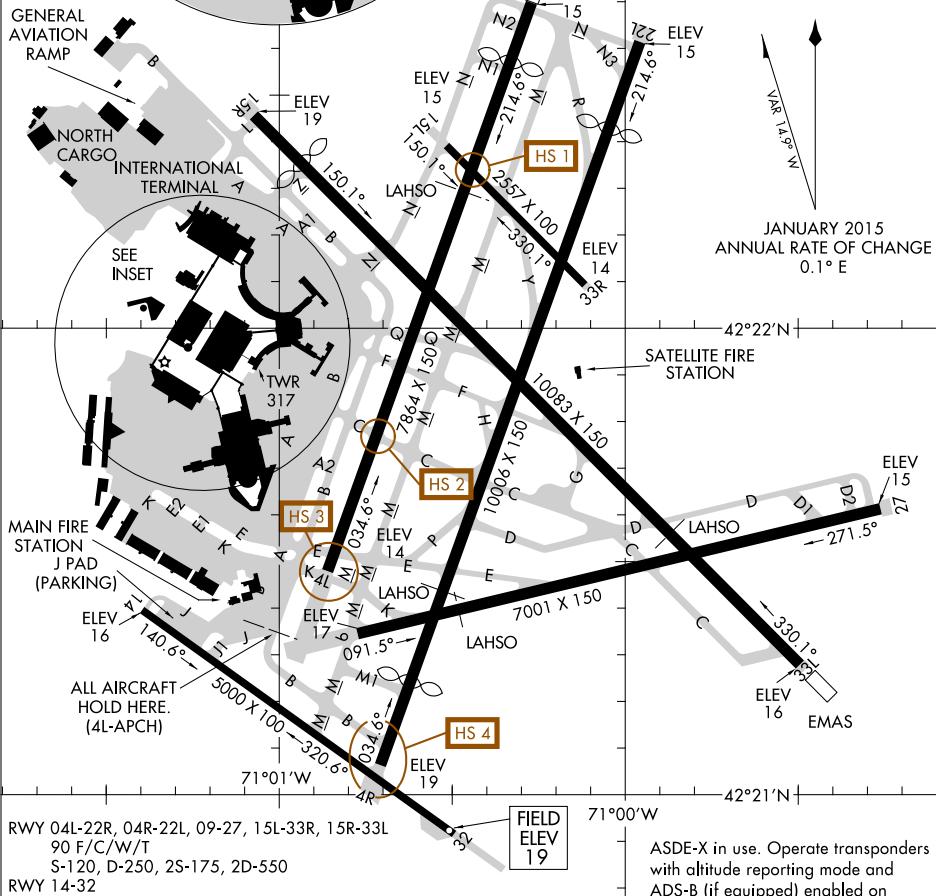
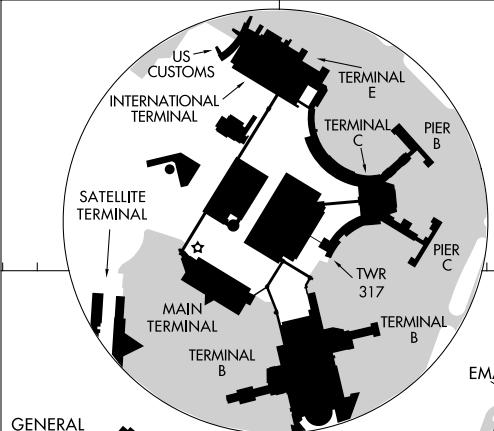
121.65 257.8

CPDLC

D

42°23'N

CAUTION: BE ALERT TO
RUNWAY CROSSING
CLEARANCES. READBACK
OF ALL RUNWAY HOLDING
INSTRUCTIONS IS REQUIRED.



AIRPORT DIAGRAM

16315

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

BOSTON, MASSACHUSETTS

TOP ALTITUDE:
5000

Z

E

S

W

NOTE: Chart not to scale.

NOTE: Departure hdg/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

NOTE: Rwy 15R, 22L, 22R: Do not exceed 210K until 520' MSL.

BLZZR THREE DEPARTURE (RNAV)
(BLZZR3.BLZZR) 25JUN15

ATIS
135.0
CLNC DEL
121.65 257.8
CPDLIC
GND CON
121.9
BOSTON TOWER
128.8 257.8
BOSTON DEP CON
133.0

TAKEOFF MINIMUMS:

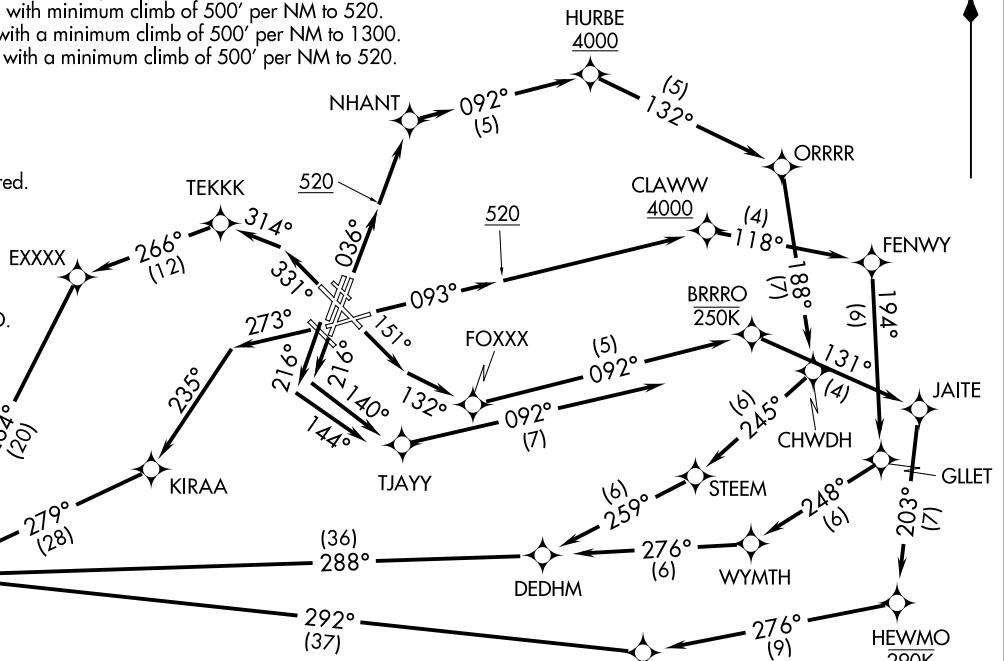
Rwys 4L, 14, 15L, 32, 33R: NA-ATC.
Rwy 4R: Standard with minimum climb of 500' per NM to 3600.
Rwy 9: Standard with minimum climb of 500' per NM to 4000.
Rwy 15R: Standard with minimum climb of 500' per NM to 520.
Rwy 22L: 300-1 with minimum climb of 500' per NM to 520, or standard with minimum climb of 500' per NM to 520 if tower reports no tall vessels in the departure area.
Rwy 22R: Standard with minimum climb of 500' per NM to 520.
Rwy 27: Standard with a minimum climb of 500' per NM to 1300.
Rwy 33L: Standard with a minimum climb of 500' per NM to 520.

NOTE: DME/DME/IRU or GPS required.
NOTE: Radar required for non-GPS equipped aircraft.
NOTE: RNAV 1.
NOTE: For Turbojets only.
NOTE: At/Below 250K until BRRRO.
NOTE: At/Below 290K until HEWMO.

CHESTER CTR

BARNES BAF

NELIE



(NARRATIVE ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence. . . .

TAKEOFF RWY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence. . . .

TAKEOFF RWY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence. . . .

TAKEOFF RWY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence. . . .

TAKEOFF RUNWAY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence. . . .

TAKEOFF RUNWAY 27: Climb heading 273° to intercept course 235° to KIRAA, thence. . . .

TAKEOFF RUNWAY 33L: Climb heading 331° to intercept course 314° to TEKKK, thence. . . .

. . . . on depicted route to BLZZR. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL.
Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL. Tank 5904'
from DER, 1453' left of centerline, 109' AGL/206' MSL

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585'
from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane
3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig
2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL.
Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320' AGL/
335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up
to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796'
from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind
indicator on tower, and trees beginning 248' from DER, 51' right of centerline,
up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline,
262' AGL/262' MSL.

(BRUWN4.BRUWN) 16315

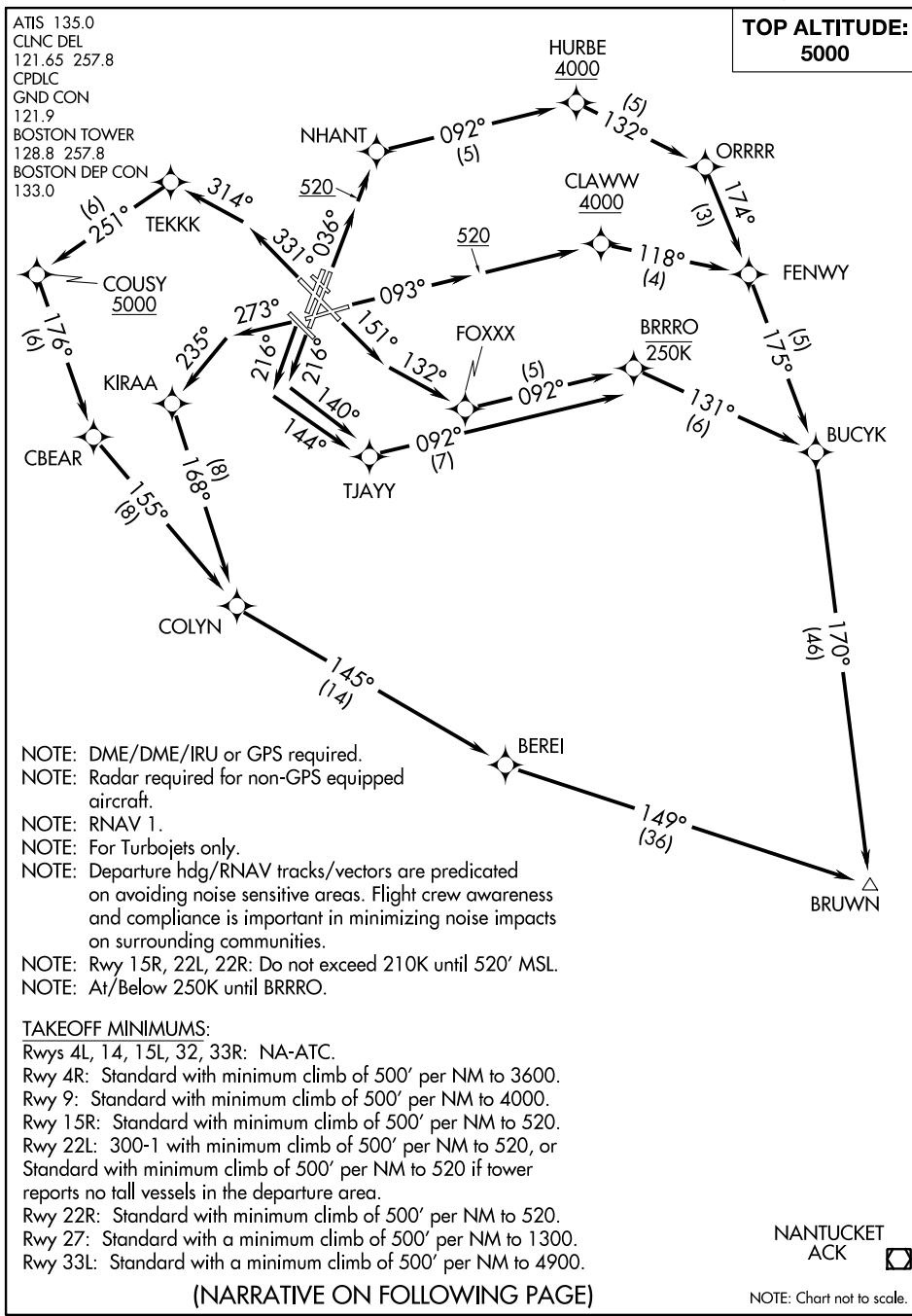
GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

BRUWN FOUR DEPARTURE (RNAV)

SL-58 (FAA)

BOSTON, MASSACHUSETTS

TOP ALTITUDE:
5000



BRUWN FOUR DEPARTURE (RNAV)

(BRUWN4.BRUWN) 25JUN15

BOSTON, MASSACHUSETTS

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

NANTUCKET
ACK



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence....

TAKEOFF RUNWAY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence....

TAKEOFF RUNWAY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22R: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 27: Climb heading 273° to intercept course 235° to KIRAA, thence....

TAKEOFF RUNWAY 33L: Climb heading 331° to intercept course 314° to TEKKK, then on track 251° to cross COUSY at or above 5000, thence....

....on depicted route to BRUWN. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level ten (10) minutes after departure.

TAKEOFF OBSTACLES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL.
Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL. Tank 5904'
from DER, 1453' left of centerline, 109' AGL/206' MSL

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585'
from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane
3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig
2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL.
Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320'
AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up
to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796'
from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind
indicator on tower, and trees beginning 248' from DER, 51' right of centerline,
up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline,
262' AGL/262' MSL.

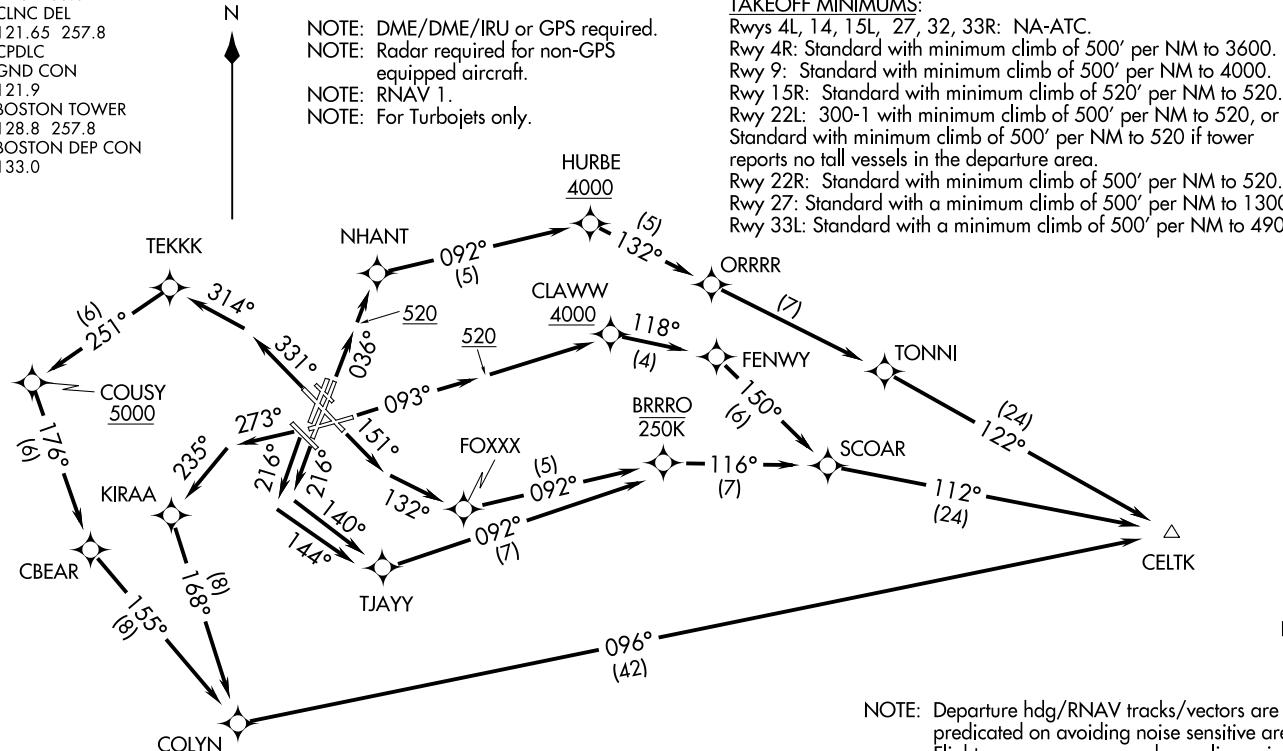
ATIS 135.0
CLNC DEL
121.65 257.8
CPDLC
GND CON
121.9
BOSTON TOWER
128.8 257.8
BOSTON DEP CON
133.0

GENERAL

EDWARD LAWRENCE LOGAN INTL (BOS)

BOSTON, MASSACHUSETTS
GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

TOP ALTITUDE:
5000

**TAKEOFF MINIMUMS:**

Rwys 4L, 14, 15L, 27, 32, 33L: NA-ATC.
 Rwy 4R: Standard with minimum climb of 500' per NM to 3600.
 Rwy 9: Standard with minimum climb of 500' per NM to 4000.
 Rwy 15R: Standard with minimum climb of 520' per NM to 520.
 Rwy 22L: 300-1 with minimum climb of 500' per NM to 520, or Standard with minimum climb of 500' per NM to 520 if tower reports no tall vessels in the departure area.
 Rwy 22R: Standard with minimum climb of 500' per NM to 520.
 Rwy 27: Standard with a minimum climb of 500' per NM to 1300.
 Rwy 33L: Standard with a minimum climb of 500' per NM to 4900.

NOTE: Departure hdg/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

NOTE: Rwy 15R, 22L, 22R: Do not exceed 210K until 520' MSL.

NOTE: At/Below 250K until BRRRO.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence....

TAKEOFF RUNWAY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence....

TAKEOFF RUNWAY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 27: Climb heading 273° to intercept course 235° to KIRAA, thence....

TAKEOFF RUNWAY 33L: Climb heading 331° to intercept course 314° to TEKKK, then on track 251° to cross COUSY at or above 5000, thence....

....on depicted route to CELTK. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL.

Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL. Tank 5904' from DER, 1453' left of centerline, 109' AGL/206' MSL

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585' from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane 3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig 2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL. Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320' AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796' from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind indicator on tower, and trees beginning 248' from DER, 51' right of centerline, up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline, 262' AGL/262' MSL.

HYLND FOUR DEPARTURE (RNAV)

SL-58 (FAA)

BOSTON, MASSACHUSETTS

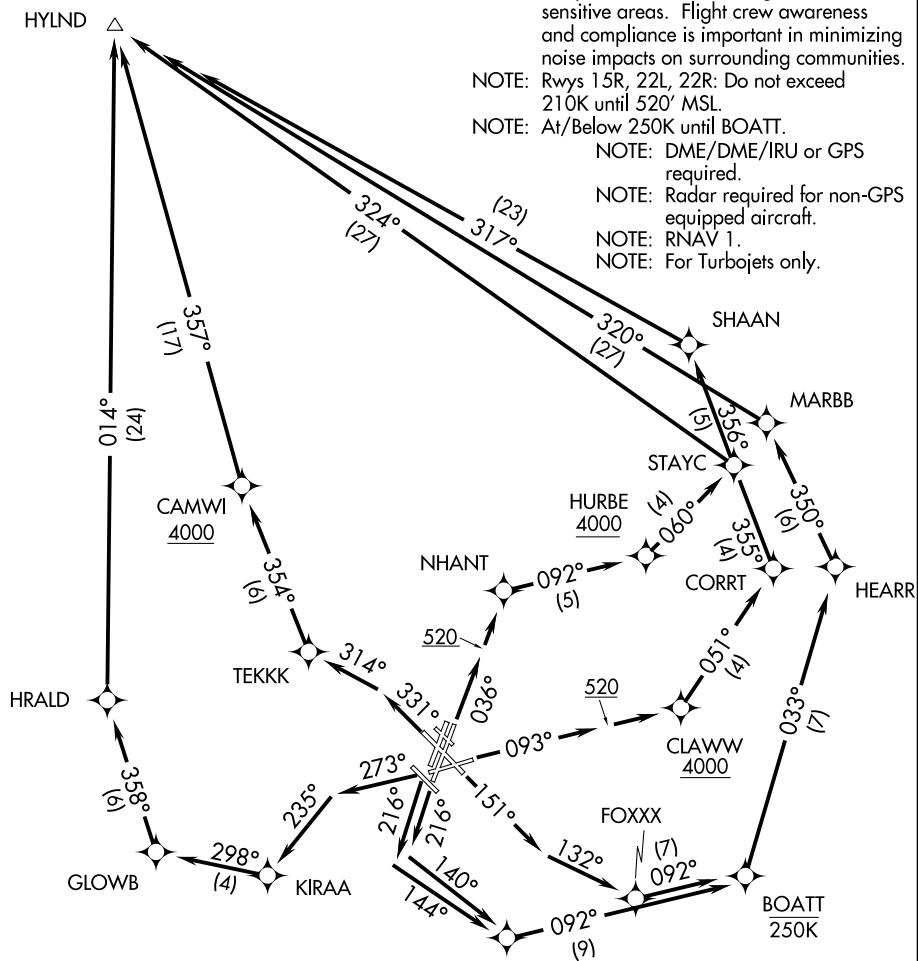
ATIS 135.0
 CLNC DEL
 121.65 257.8
 CPDLC
 GND CON
 121.9
 BOSTON TOWER
 128.8 257.8
 BOSTON DEP CON
 133.0

MANCHESTER
MHT

TAKEOFF MINIMUMS:

Rwys 4L, 14, 15L, 32, 33R: NA - ATC
 Rwy 4R: Standard with minimum climb of 500' per NM to 3600.
 Rwy 9: Standard with minimum climb of 500' per NM to 4000.
 Rwy 15R, 22R: Standard with minimum climb of 500' per NM to 520.
 Rwy 22L: 300-1 with minimum climb of 500' per NM to 520, or standard with minimum climb of 500' per NM to 520 if tower reports no tall vessels in the departure area.
 Rwy 27: Standard with a minimum climb of 500' per NM to 1300.
 Rwy 33L: Standard with a minimum climb of 500' per NM to 3100.

TOP ALTITUDE:
5000



(NARRATIVE ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence....

TAKEOFF RUNWAY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence....

TAKEOFF RUNWAY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 27: Climb heading 273° to intercept course 235° to KIRAA, thence....

TAKEOFF RUNWAY 33L: Climb heading 331° to intercept course 314° to TEKKK, then on track 354° to cross CAMWI at or above 4000, thence....

....on depicted route to HYLND. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLE NOTES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL. Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL. Tank 5904' from DER, 1453' left of centerline, 109' AGL/206' MSL.

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585' from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane 3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig 2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL. Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320' AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796' from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind indicator on tower, and trees beginning 248' from DER, 51' right of centerline, up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline, 262' AGL/262' MSL.

LBSTA FOUR DEPARTURE (RNAV)

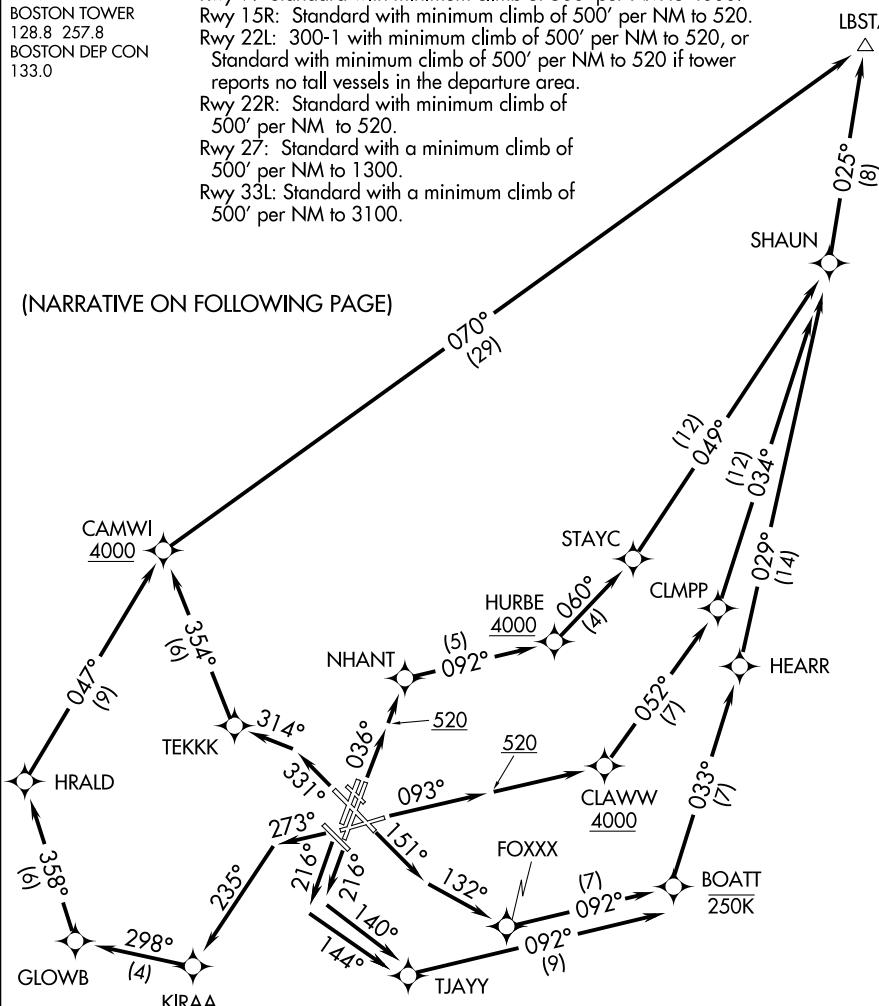
ATIS 135.0
CLNC DEL
121.65 257.8
CPDLC
GND CON
121.9
BOSTON TOWER
128.8 257.8
BOSTON DEP CON
133.0

TAKEOFF MINIMUMS:

Rwys 4L, 14, 15L, 32, 33R: NA - ATC.
 Rwy 4R: Standard with minimum climb of 500' per NM to 3600.
 Rwy 9: Standard with minimum climb of 500' per NM to 4000.
 Rwy 15R: Standard with minimum climb of 500' per NM to 520.
 Rwy 22L: 300-1 with minimum climb of 500' per NM to 520, or
 Standard with minimum climb of 500' per NM to 520 if tower
 reports no tall vessels in the departure area.
 Rwy 22R: Standard with minimum climb of
 500' per NM to 520.
 Rwy 27: Standard with a minimum climb of
 500' per NM to 1300.
 Rwy 33L: Standard with a minimum climb of
 500' per NM to 3100.

TOP ALTITUDE:
5000

(NARRATIVE ON FOLLOWING PAGE)



NOTE: DME/DME/IRU or GPS required.

NOTE: Radar required for non-GPS equipped aircraft.

NOTE: RNAV 1.

NOTE: For Turbojets only.

NOTE: Departure hdg/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

NOTE: Rwy 15R, 22L, 22R: Do not exceed 210K until 520' MSL.

NOTE: At/Below 250K until BOATT.

NOTE: Chart not to scale.

LBSTA FOUR DEPARTURE (RNAV)

(LBSTA4.LBSTA) 25JUN15



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence....

TAKEOFF RUNWAY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence....

TAKEOFF RUNWAY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 27: Climb heading 273° to intercept course 235° to KIRAA, thence....

TAKEOFF RUNWAY 33L: Climb heading 331° to intercept course 314° to TEKKK, then on track 354° to cross CAMWI at or above 4000, thence....

....on depicted route to LBSTA. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL.
Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL. Tank 5904'
from DER, 1453' left of centerline, 109' AGL/206' MSL

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585'
from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane
3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig
2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL.
Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to
320' AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up
to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796'
from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind
indicator on tower, and trees beginning 248' from DER, 51' right of centerline,
up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline,
262' AGL/262' MSL.

LOGAN ONE DEPARTURE

SL-58 (FAA)

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

BOSTON, MASSACHUSETTS

ATIS 135.0
 CLNC DEL 121.65 257.8
 CPDLU GND CONZ 121.9
 BOSTON TOWER 128.8 257.8
 BOSTON DEP CONZ 133.0

LOGAN ONE DEPARTURE

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

HANAA
 N43°11.87' W73°36.77'
 L-32, H-11-12

TOP ALTITUDE:
(JETS) 5000
(PROPS) 3000

MANCHESTER
 114.4 MHT Chan 91
 N42°52.11'-W71°22.17'
 L-32-33, H-11-12

KENNEBUNK
 117.1 ENE Chan 118
 N43°25.54'-W70°36.81'
 L-32, H-11-12

PEASE
 116.5 PSM Chan 112
 N43°05.07' W70°49.92'
 L-32-33, H-11-12

ATIS 135.0
 CLNC DEL 121.65 257.8
 CPDLU GND CONZ 121.9
 BOSTON TOWER 128.8 257.8
 BOSTON DEP CONZ 133.0

CAMBRIDGE
 115.0 CAM Chan 97
 N42°59.66'-W73°20.64'
 L-32-34, H-11-12

CHESTER
 115.1 CTR Chan 98
 N42°17.48' W72°56.96'
 L-33-34, H-10-11-12

BARNES
 113.0 BAF Chan 77
 N42°09.72'-W72°42.97'
 L-33-34, H-10-11-12

CARMEL
 116.6 CMK Chan 113
 N41°16.81'-W73°34.88'
 L-33-34, H-10-12

SANDY POINT
 117.8 SEY Chan 125
 N41°10.05'-W71°34.57'
 L-33, H-10-12

PROVIDENCE
 115.6 PVD Chan 103
 N41°43.46'-W71°25.78'
 L-33-34, H-10-11-12

MARSHALLS VINEYARD
 114.5 MVY Chan 92
 N41°23.77'-W70°36.76'
 L-33, H-10-12

BOSTON
 112.7 BOS Chan 74
 N42°48.00' W70°36.81'
 L-33, H-11-12

CELTIC
 N42°15.98' W70°06.21'
 L-33, H-11-12

FRILL
 N42°13.79' W69°49.48'
 H-11-12

MARCONI
 114.7 LFV Chan 94
 N42°01.03' W70°02.23'
 L-33, H-10-11-12

NANTUCKET
 116.2 ACK Chan 109
 N41°16.91'-W70°01.60'
 L-33, H-10-12

(NOTES ON FOLLOWING PAGES)
 (NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

LOGAN ONE DEPARTURE

SL-58 (FAA)

BOSTON, MASSACHUSETTS

**DEPARTURE ROUTE DESCRIPTION****JET AIRCRAFT:**

TAKEOFF RWYS 4L/4R: Climb heading 036° to BOS 4 DME, then turn right heading 090°, thence . . .

TAKEOFF RWY 9: Climb heading 093°, thence . . .

TAKEOFF RWY 14: Climb heading 142° to BOS 1 DME, then turn left heading 120°, thence . . .

TAKEOFF RWY 15R: Climb heading 151° to BOS 1 DME, then turn left heading 120°, thence . . .

TAKEOFF RWYS 22L/22R: Climbing left turn heading 140°, thence . . .

TAKEOFF RWY 27: Climb heading 273° to BOS 2.2 DME, then left turn heading 235°, thence . . .

TAKEOFF RWY 33L: Climb heading 331° to BOS 2 DME, then left turn heading 316°, thence . . .

NON JET AIRCRAFT: Climb on assigned heading, thence . . .

. . . expect RADAR vectors to assigned route/navaid/fix. Jet aircraft maintain 5000 or lower assigned altitude. Non jet aircraft maintain 3000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF MINIMUMS:

Rwys 32, 33R: NA-Environmental.

Rwy 15L: NA-ATC.

Rwy 4R, 15R: Standard.

Rwy 4L: 300-1 or standard with a minimum climb of 358' per NM to 300.

Rwy 9: 300-1¼ or standard with a minimum climb of 272' per NM to 300.

Rwy 14: 300-1¼ or standard with a minimum climb of 225' per NM to 300, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1600' prior to DER.

Rwy 22L: 300-1 or standard if tower reports no tall vessels in the departure area.

Rwy 22R: 400-1¾ or standard with a minimum climb of 320' per NM to 500.

Rwy 27: Standard with a minimum climb of 477' per NM to 1300.

Rwy 33L: 300-1¾ or standard with minimum climb of 224' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1900' prior to DER.

NOTE: RADAR required.

NOTE: DME required for jet aircraft departing Rwys 4L/R, 14, 15R, 27, 33L.

NOTE: Non RNAV equipped aircraft can expect vectors on assigned route.

NOTE: Jet aircraft departure headings/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities. Aircraft that are initially vectored over water can expect to cross the coastline above 6000 MSL before proceeding on course.

NOTE: BLZZR DEPARTURES expect vectors on BOS R-273, DME required.

NOTE: BRUWN DEPARTURES expect vectors on BOS R-159, DME required.

NOTE: CELTK DEPARTURES expect vectors on BOS R-114.

NOTE: HYLND DEPARTURES expect vectors on BOS R-350.

NOTE: PATSS DEPARTURES expect vectors on BOS R-260, DME required.

NOTE: REVSS DEPARTURES expect vectors on BOS R-285, DME required.

NOTE: SSOXS DEPARTURES expect vectors on BOS R-177, DME required.

(CONTINUED ON FOLLOWING PAGE)

LOGAN ONE DEPARTURE

(LOGAN1.BOS) 21JUL16

BOSTON, MASSACHUSETTS

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

LOGAN ONE DEPARTURE

SL-58 (FAA)

BOSTON, MASSACHUSETTS

(NOTES CONTINUED)**TAKEOFF OBSTACLE NOTES:**

Rwy 4L: Ships beginning 693' from DER, on centerline, up to 50' AGL/50' MSL.

Tower and pole beginning 1803' from DER, 701' right of centerline, up to 56' AGL/68' MSL. Trees beginning 2278' from DER, 678' right of centerline, up to 57' AGL/77' MSL. Tree 2091' from DER, 91' left of centerline, 47' AGL/77' MSL. Building and trees beginning 3972' from DER, 543' left of centerline, up to 50' AGL/198' MSL.

Rwy 4R: Ships beginning 578' from DER on centerline, up to 50' AGL/50' MSL. Trees, pole, and tower, beginning 1807' from DER, 382' left of centerline, up to 30' AGL/68' MSL. Trees beginning 2282' from DER, 691' left of centerline, up to 57' AGL/77' MSL.

Rwy 9: Ships beginning 761' from DER on centerline, up to 65' AGL/65' MSL. Tank and obstacle light beginning 5883' from DER, 1453' left of centerline, up to 120' AGL/217' MSL.

Rwy 14: Terrain 77' from DER, 454' left of centerline, 23' MSL. Building and ASR 462' from DER, 324' left of centerline, up to 36' AGL/73' MSL. Ship rig 5438' from DER, 1825' right of centerline, 176' AGL/176' MSL.

Rwy 15R: Sign 45' from DER, 267' right of centerline, 15' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Ship rig 2440' from DER, 34' left of centerline, 176' AGL/176' MSL. Tower and light 3585' from DER, 926' left of centerline, 114' AGL/128' MSL. Cranes beginning 3675' from DER, 439' right of centerline, up to 146' AGL/146' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL.
Stack 1.4 NM from DER, 2755' right of centerline, 250' AGL/265' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 750' right of centerline, up to 86' AGL/102' MSL. Buildings beginning 1.2 NM from DER, 126' left of centerline, up to 251' AGL/261' MSL. Buildings beginning 1.4 NM from DER, 1166' right of centerline up to 261' AGL/274' MSL. Building 1.6 NM from DER, 2654' right of centerline, 548' AGL/560' MSL. Buildings beginning 1.7 NM from DER, 1532' right of centerline, up to 620' AGL/643' MSL. Building beginning 1.9 NM from DER, 1507' right of centerline, up to 685' AGL/709' MSL.

Rwy 33L: Tree 248' from DER, 377' right of centerline, 16' AGL/27' MSL. Wind indicator 1403' from DER, 322' right of centerline, 19' AGL/59' MSL. Light on building and rod on tank beginning 1677' from DER, 603' left of centerline, up to 58' AGL/73' MSL. Trees beginning 2072' from DER, 51' right of centerline, up to 72' AGL/94' MSL. Sign 3015' from DER, 1123' right of centerline, 73' AGL/101' MSL. Tree 4001' from DER, 578' left of centerline, 43' AGL/119' MSL. Building 4363' from DER, 1082' left of centerline, 64' AGL/129' MSL. Building 5080' from DER, 1494' left of centerline, 71' AGL/149' MSL. Light on bridge 1.4 NM from DER, 2566' left of centerline, 262' AGL/262' MSL.

PATSS FOUR DEPARTURE (RNAV)

SI-58 (FAA)

ATS 135.0
 CLNC DEL 121.65 257.8
 CPDLC GND CON 121.9
 BOSTON TOWER 128.8 257.8
 BOSTON DEP CON 133.0

PATSS FOUR DEPARTURE (RNAV) (PATSS4.PATSS) 25JUN15

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)
BOSTON, MASSACHUSETTS

NOTE: DME/DME/IRU or GPS required.

NOTE: Radar required for non-GPS equipped aircraft.

NOTE: RNAV 1.

NOTE: For Turbojets only.

NOTE: Departure hdg/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities.

NOTE: Rwy 15R, 22L, 22R: Do not exceed 210K until 520' MSL.

NOTE: At/Below 250K until BRRRO.

NOTE: At/Below 290K until HEWMO.

N

PATSS △

 NELIE
 CARMEL CMK
TOP ALTITUDE:
5000

TAKEOFF MINIMUMS:

Rwy 4L, 14, 15L, 32, 33R: NA-ATC.

Rwy 4R: Standard with minimum climb of 500' per NM to 3600.

Rwy 9: Standard with minimum climb of 500' per NM to 4000.

Rwy 15R: Standard with minimum climb of 500' per NM to 520.

Rwy 22L: 300-1 with minimum climb of 500' per NM to 520, or Standard with minimum climb of 500' per NM to 520 if tower reports no tall vessels in the departure area.

Rwy 22R: Standard with minimum climb of 500' per NM to 520.

Rwy 27: Standard with a minimum climb of 500' per NM to 1300.

Rwy 33L: Standard with a minimum climb of 500' per NM to 4900.

(NARRATIVE ON
FOLLOWING PAGE)

NOTE: Chart not to scale.

PATSS FOUR DEPARTURE (RNAV)

SL-58 (FAA)

BOSTON, MASSACHUSETTS

**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RWY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence. . . .

TAKEOFF RWY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence. . . .

TAKEOFF RWY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence. . . .

TAKEOFF RWY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence. . . .

TAKEOFF RWY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence. . . .

TAKEOFF RWY 27: Climb heading 273° to intercept course 235° to KIRAA, thence. . . .

TAKEOFF RWY 33L: Climb heading 331° to intercept course 314° to TEKKK, then on track 251° to cross COUSY at or above 5000, thence. . . .

. . . . on depicted route to PATSS. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLE NOTES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL. Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL.
Tank 5904' from DER, 1453' left of centerline, 109' AGL/206' MSL.

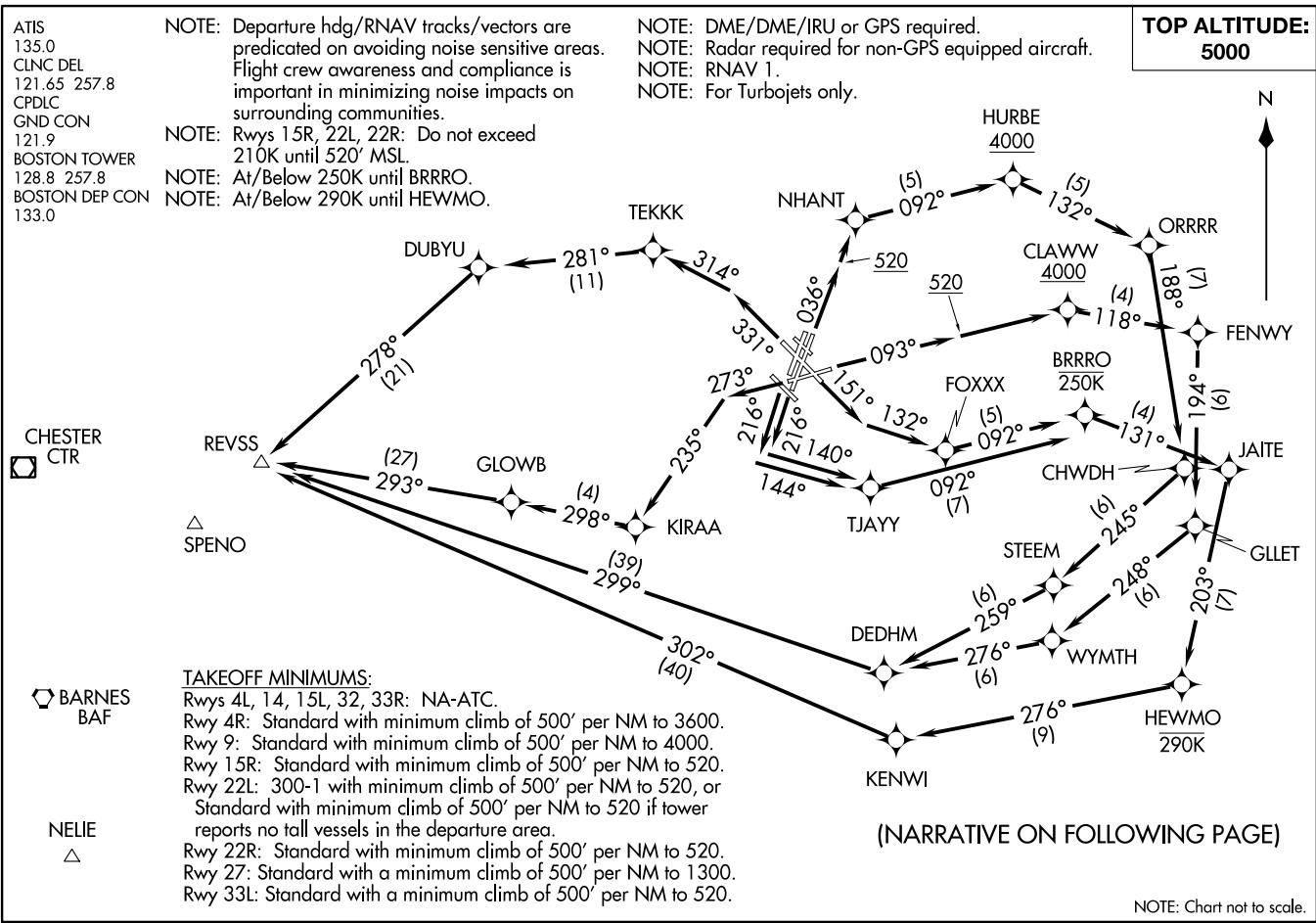
Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585' from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane 3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig 2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL.
Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320' AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796' from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind indicator on tower, and trees beginning 248' from DER, 51' right of centerline, up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline, 262' AGL/262' MSL.

REVSS THREE DEPARTURE (RNAV)
(REVSS3.REVSS) 25JUN15



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence....

TAKEOFF RWY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence....

TAKEOFF RWY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence....,

TAKEOFF RWY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RWY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RWY 27: Climb heading 273° to intercept course 235° to KIRAA, thence....

TAKEOFF RWY 33L: Climb heading 331° to intercept course 314° to TEKKK, thence....

....on depicted route to REVSS. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLES NOTES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL.
Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL.
Tank 5904' from DER, 1453' left of centerline, 109' AGL/206' MSL

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL.
Tower 3585' from DER, 926' left of centerline, 108' AGL/128' MSL.

Mobile crane 3675' from DER, 439' right of centerline, 122' AGL/145' MSL.

Ship rig 2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL.
Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320' AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796' from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind indicator on tower, and trees beginning 248' from DER, 51' right of centerline, up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline, 262' AGL/262' MSL.

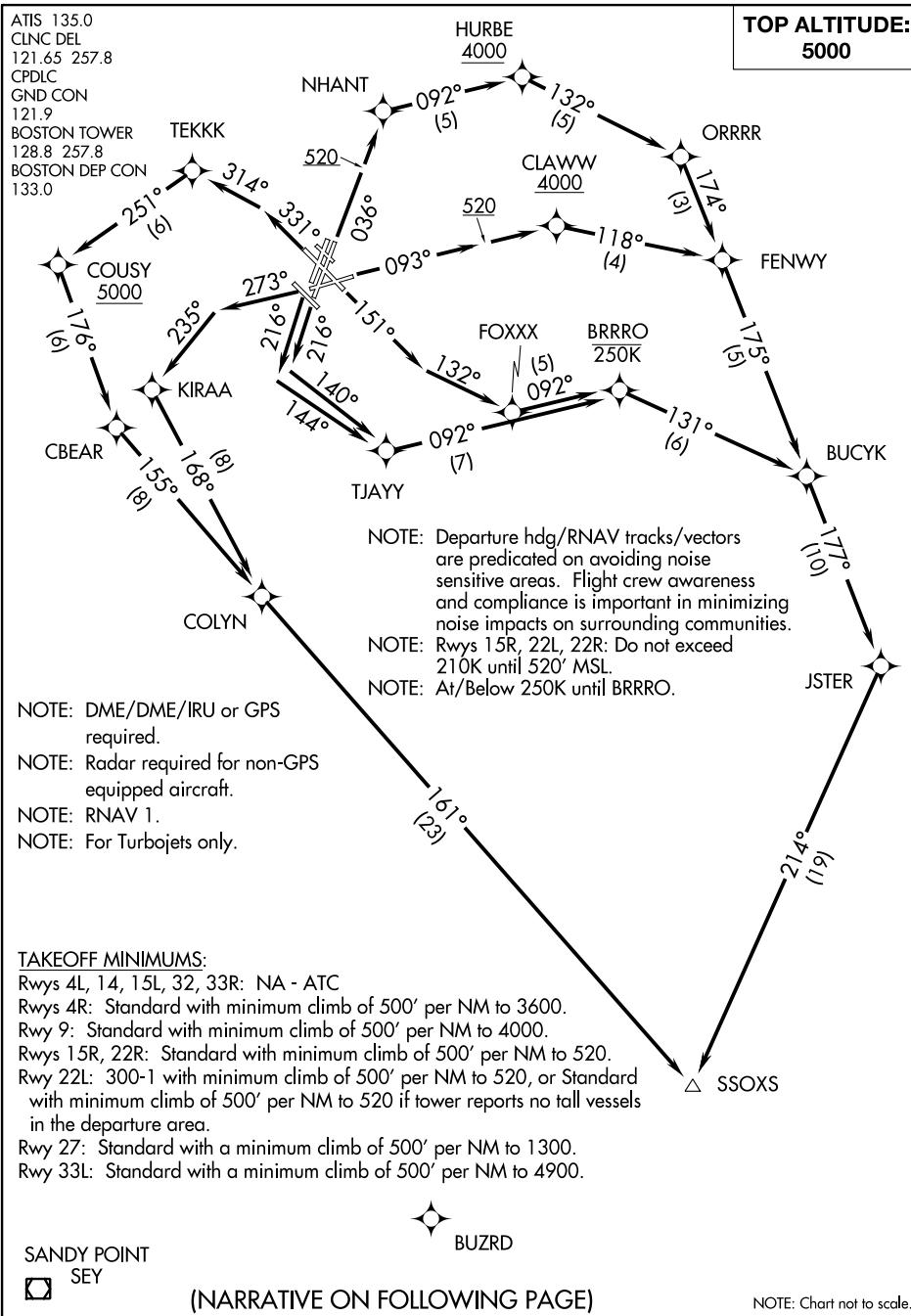
(SSOXS4.SSOXS) 16315

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

SSOXS FOUR DEPARTURE (RNAV)

SL-58 (FAA)

BOSTON, MASSACHUSETTS

TOP ALTITUDE:
5000**SSOXS FOUR DEPARTURE (RNAV)**

(SSOXS4.SSOXS) 25JUN15

BOSTON, MASSACHUSETTS

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4R: Climb heading 036° to 520, then direct NHANT, then on track 092° to cross HURBE at or above 4000, thence....

TAKEOFF RUNWAY 9: Climb heading 093° to 520, then direct CLAWW, cross CLAWW at or above 4000, thence....

TAKEOFF RUNWAY 15R: Climb heading 151° to intercept course 132° to FOXXX, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22L: Climb heading 216° to intercept course 140° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 22R: Climb heading 216° to intercept course 144° to TJAYY, do not exceed 210K until 520 MSL, thence....

TAKEOFF RUNWAY 27: Climb heading 273° to intercept course 235° to KIRAA, thence....

TAKEOFF RUNWAY 33L: Climb heading 331° to intercept course 314° to TEKKK, then on track 251° to cross COUSY at or above 5000, thence....

....on depicted route to SSOXS. Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

TAKEOFF OBSTACLE NOTES:

Rwy 4R: Ships beginning 579' from DER, on centerline, up to 50' AGL/50' MSL. Pole and trees beginning 1806' from DER, 403' left of centerline, up to 51' AGL/79' MSL.

Rwy 9: Ships 762' from DER, on centerline, up to 65' AGL/65' MSL. Tank 5904' from DER, 1453' left of centerline, 109' AGL/206' MSL

Rwy 15R: Sign 45' from DER, 267' right of centerline, 6' AGL/16' MSL.

Rwy 22L: Pole 394' from DER, on centerline, 15' AGL/31' MSL. Tower 3585' from DER, 926' left of centerline, 108' AGL/128' MSL. Mobile crane 3675' from DER, 439' right of centerline, 122' AGL/145' MSL. Ship rig 2440' from DER, 34' left of centerline, 176' AGL/176' MSL.

Rwy 22R: Ship rig 4064' from DER, 8' right of centerline, 176' AGL/176' MSL. Stacks beginning 1.4 NM from DER, 2795' right of centerline, up to 320' AGL/335' MSL.

Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up to 60' AGL/100' MSL.

Rwy 33L: Electrical systems, buildings, chimney on building, and tank beginning 796' from DER, 603' left of centerline, up to 40' AGL/149' MSL. Sign, wind indicator on tower, and trees beginning 248' from DER, 51' right of centerline, up to 35' AGL/101' MSL. Bridge 1.4 NM from DER, 2568' left of centerline, 262' AGL/262' MSL.

WYLYY TWO DEPARTURE (RNAV) (WYLYY2.WYLYY) 25JUN15	<p>ATIS DEP 135.0 CLNC DEL 121.65 257.8 CPDLC GND CON 121.9 BOSTON TOWER 128.8 257.8 BOSTON DEP CON 133.0</p> <p>CHESTER <input type="checkbox"/> CTR</p> <p>BARNES BAF</p> <p>ONEPS <input type="checkbox"/></p> <p>NELIE <input type="checkbox"/></p> <p>TAKOFF MINIMUMS: Rwy 4L, 4R, 9, 14, 15L, 15R, 22L, 22R, 32, 33L, 33R: NA-ATC. Rwy 27: Standard with minimum climb of 474' per NM to 2300.</p>	<p>NOTE: DME/DME/IRU or GPS required. NOTE: RNAV 1. NOTE: For turbojets only. NOTE: Radar required. NOTE: ATC assigned. Do not file. NOTE: Departure hdg/RNAV tracks/vectors are predicated on avoiding noise sensitive areas. Flight crew awareness and compliance is important in minimizing noise impacts on surrounding communities. NOTE: Departures assigned routing via LBSTA, PSM VOR/DME, MHT VOR/DME, HYLNND, or REVSS direct SPENO; BLZZR direct ONEPS ; PATSS, GLYDE or BOSOX expect radar vectors to the right to assigned route/fix.</p> <p>MANCHESTER MHT PEASE PSM LBSTA CELTK FRILL MARCONI LFV HYLNND BLZZR CYOTI PATSS BOSOX SANDY POINT SEY REVSS GLYDE BARNES BAF ONEPS NELIE ATIS DEP 135.0 CLNC DEL 121.65 257.8 CPDLC GND CON 121.9 BOSTON TOWER 128.8 257.8 BOSTON DEP CON 133.0</p>	<p>▼ DEPARTURE ROUTE DESCRIPTION</p> <p>TAKEOFF RWY 27: Climb heading 273° to intercept course 235° to cross WYLYY at or above 2300, then on depicted route to CYOTI, thence. expect vectors to assigned fix/NAVAID (see notes). Maintain 5000 or lower assigned altitude. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.</p> <p>TOP ALTITUDE: 5000</p> <p>NOTE: Departures assigned routing via CELTK, FRILL, LFV VOR/DME, ACK VOR/DME, BRUWN, SSOXS, LUCOS, SEY VOR/DME, or BURDY expect radar vectors to the left to assigned route/fix.</p> <p>TAKEOFF OBSTACLE NOTES: Rwy 27: Light pole and rod beginning 1690' from DER, 759' right of centerline, up to 60' AGL/100' MSL.</p> <p>NOTE: Chart not to scale.</p>