

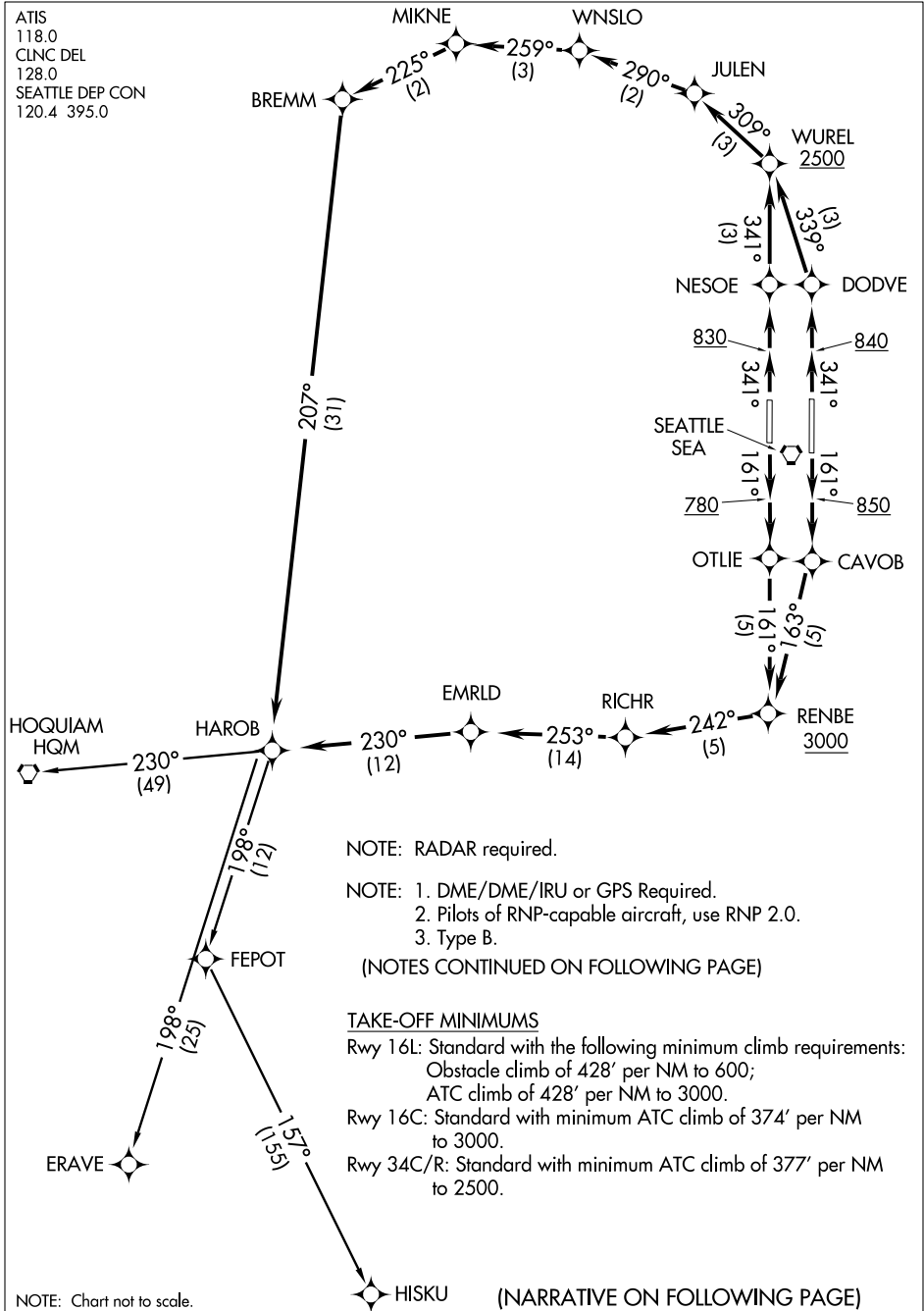
(HAROB1.HAROB) 06271

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

HAROB ONE DEPARTURE (RNAV)

ATIS
118.0
CLNC DEL
128.0
SEATTLE DEP CON
120.4 395.0



NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007

NOTE: RADAR required.

NOTE: 1. DME/DME/IRU or GPS Required.
 2. Pilots of RNP-capable aircraft, use RNP 2.0.
 3. Type B.

(NOTES CONTINUED ON FOLLOWING PAGE)

TAKE-OFF MINIMUMS

Rwy 16L: Standard with the following minimum climb requirements:
 Obstacle climb of 428' per NM to 600;
 ATC climb of 428' per NM to 3000.

Rwy 16C: Standard with minimum ATC climb of 374' per NM to 3000.

Rwy 34C/R: Standard with minimum ATC climb of 377' per NM to 2500.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

HAROB ONE DEPARTURE (RNAV)

(HAROB1.HAROB) 06271


SEATTLE, WASHINGTON
SEATTLE-TACOMA INTL (SEA)


ELMAA SEVEN DEPARTURE

SL-582 (FAA)

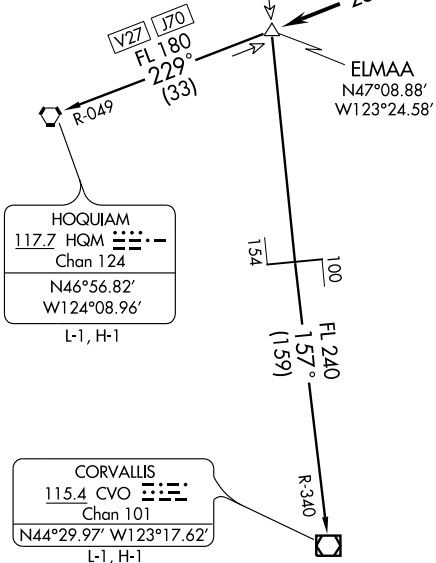
SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

ATIS 118.0
CLNC DEL
128.0
SEATTLE DEP CON
120.4 395.0

VICTORIA
113.7 YYJ 
Chan 84

SEATTLE
116.8 SEA 
Chan 115
N47°26.12' - W122°18.58'

(NICHY)
N47°21.13'
W122°18.58'
3000



- NOTE: Take-off Rwy 16L/C requires a minimum climb of 560' per NM to 3000'.
- NOTE: Cross departure end of runways at or above 18' AGL.
- NOTE: RADAR and DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L/C: Intercept and proceed via SEA R-161, cross SEA 5 DME at or above 3000', then turn right heading 250° to intercept the SEA R-230 to ELMAA INT, then via (transition) or (assigned route). Expect filed altitude, expect filed altitude/flight level 15 NM from SEA.

CORVALLIS TRANSITION (ELMAA7.CVO): From over ELMAA INT via YYJ R-157 and CVO R-340 to CVO VOR/DME.

HOQUIAM TRANSITION (ELMAA7.HQM): From over ELMAA INT via HQM R-049 to HQM VORTAC.

ELMAA SEVEN DEPARTURE

NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007

HAROB ONE DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16L: Climb via 161° heading to at or above 850, then direct CAVOB WP, then via 163° track to RENBE WP, cross RENBE WP at or above 3000, then via depicted route to HAROB WP, thence. . . .

TAKE-OFF RUNWAY 16C: Climb via 161° heading to at or above 780, then direct OTLIE WP, then via 161° track to RENBE WP, cross RENBE WP at or above 3000, then via depicted route to HAROB WP, thence. . . .

TAKE-OFF RUNWAY 34C: Climb via 341° heading to at or above 830, then direct NESOE WP, then via 341° track to WUREL WP, cross WUREL WP at or above 2500, then via depicted route to HAROB WP, thence. . . .

TAKE-OFF RUNWAY 34R: Climb via 341° heading to at or above 840, then direct DODVE WP, then via 339° track to WUREL WP, cross WUREL WP at or above 2500, then via depicted route to HAROB WP, thence. . . .

. . . . via assigned route. Maintain assigned altitude, expect filed altitude/flight level 1.5 NM from SEA VORTAC.

ERAVE TRANSITION (HAROB1.ERAVE)

FEPOT TRANSITION (HAROB1.FEPOT)

HISKU TRANSITION (HAROB1.HISKU)

HOQUIAM TRANSITION (HAROB1.HQM)

TAKE-OFF OBSTACLE NOTES

Rwy 34R: Tree 2367' from DER, 953' right of centerline, 150' AGL/506' MSL.

Rwy 16C: Obstruction light on rod 183' from DER, 402' left of centerline, 30' AGL/375' MSL.

Obstruction light on rod 413' from DER, 337' left of centerline, 53' AGL/375' MSL.

Multiple trees beginning 1621' from DER, 923' right of centerline, 150' AGL/411' MSL

through 5310' from DER, 412' right of centerline, 150' AGL/507' MSL.

Rwy 16L: Obstruction light on windsock 17' from DER, 250' right of centerline, 62' AGL/351' MSL.

Tree 1171' from DER, 792' left of centerline, 150' AGL/379' MSL.

Multiple trees beginning 2836' from DER, 1212' right of centerline through 2908' from DER, 1064' right of centerline, 150' AGL/472' to 503' MSL.

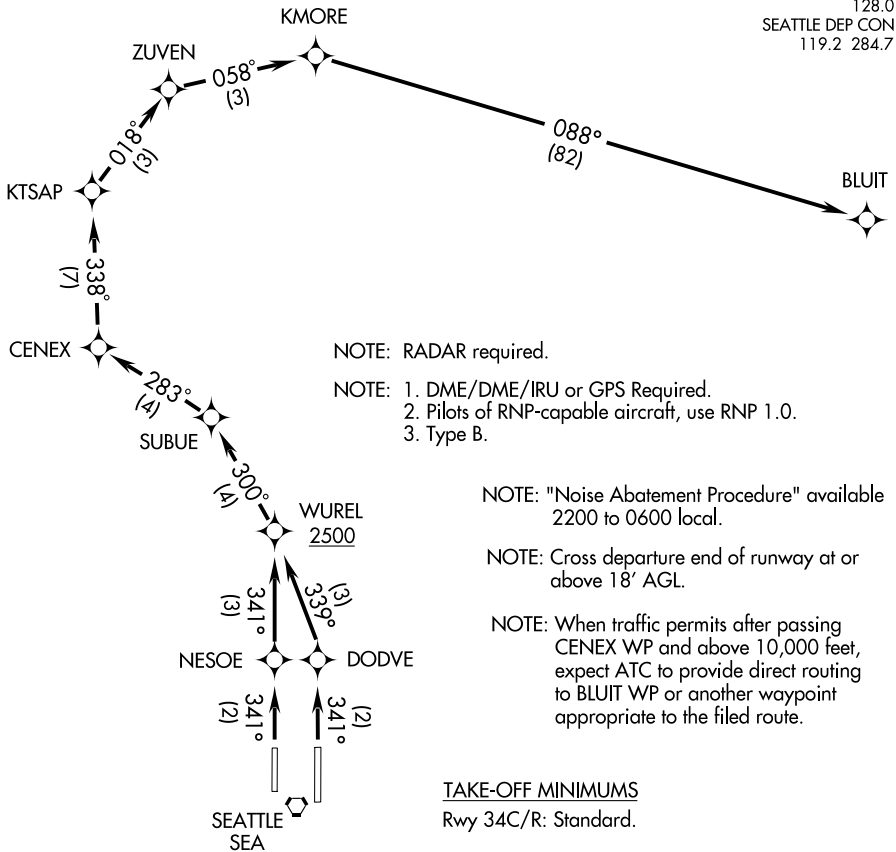
NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007

KMORE ONE DEPARTURE (RNAV)

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

ATIS
118.0
CLNC DEL
128.0
SEATTLE DEP CON
119.2 284.7



NOTE: RADAR required.

- NOTE: 1. DME/DME/IRU or GPS Required.
 2. Pilots of RNP-capable aircraft, use RNP 1.0.
 3. Type B.

NOTE: "Noise Abatement Procedure" available 2200 to 0600 local.

NOTE: Cross departure end of runway at or above 18' AGL.

NOTE: When traffic permits after passing CENEX WP and above 10,000 feet, expect ATC to provide direct routing to BLUIT WP or another waypoint appropriate to the filed route.

TAKE-OFF MINIMUMS

Rwy 34C/R: Standard.

NOTE: Take-off Rwy 34C/R requires a minimum climb of 650' per NM to 2500'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34C: Climb via 341° course to NESOE WP, then via 341° course to WUREL WP, thence. . . .

TAKE-OFF RUNWAY 34R: Climb via 341° course to DODVE WP, then via 339° course to WUREL WP, thence. . . .

. . . .via 300° course to SUBUE WP, then via 283° course to CENEX WP, then via 338° course to KTSAP WP, then via 018° course to ZUVEN WP, then via 058° course to KMORE WP, then via 088° course to BLUIT WP. Thence. . . .

. . . . via assigned route. Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

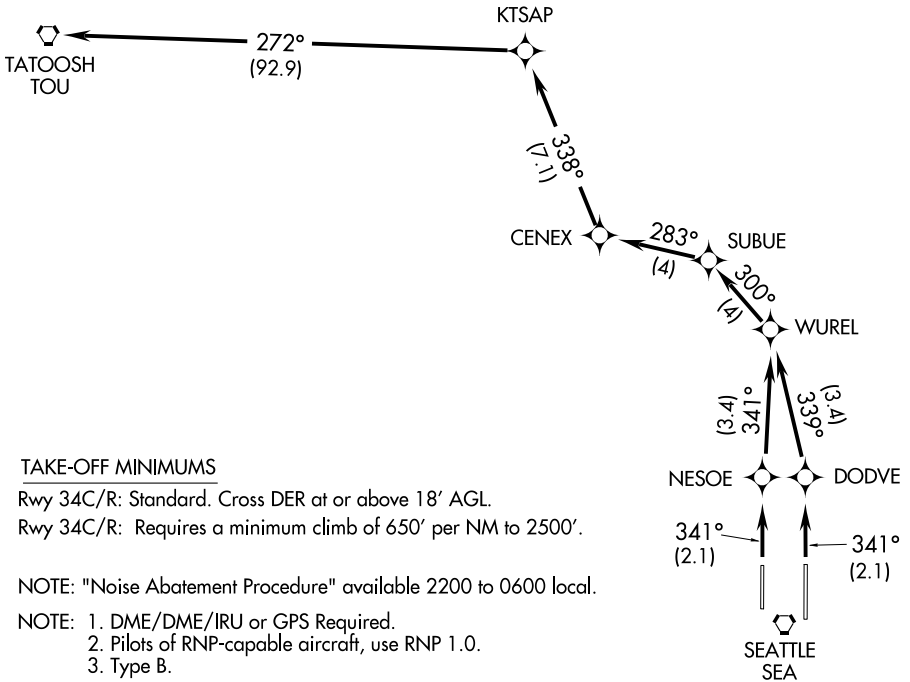
KMORE ONE DEPARTURE (RNAV)

NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007

KTSAP TWO DEPARTURE (RNAV)

ATIS
118.0
SEATTLE CLNC DEL
128.0
SEATTLE DEP CON
119.2 284.7



TAKE-OFF MINIMUMS

Rwy 34C/R: Standard. Cross DER at or above 18' AGL.

Rwy 34C/R: Requires a minimum climb of 650' per NM to 2500'.

NOTE: "Noise Abatement Procedure" available 2200 to 0600 local.

- NOTE:
1. DME/DME/IRU or GPS Required.
 2. Pilots of RNP-capable aircraft, use RNP 1.0.
 3. Type B.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 34C: Climb via 341° course to NESOE WP, then via 341° course to WUREL WP, then . . .

TAKE-OFF RUNWAY 34R: Climb via 341° course to DODVE WP, then via 339° course to WUREL WP, then . . .

. . . via 300° course to SUBUE WP, then via 283° course to CENEX WP, then via 338° course to KTSAP WP, then via 272° course to TOU VORTAC. Thence via assigned route. Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

NW-1, 21 DEC 2006 to 18 JAN 2007

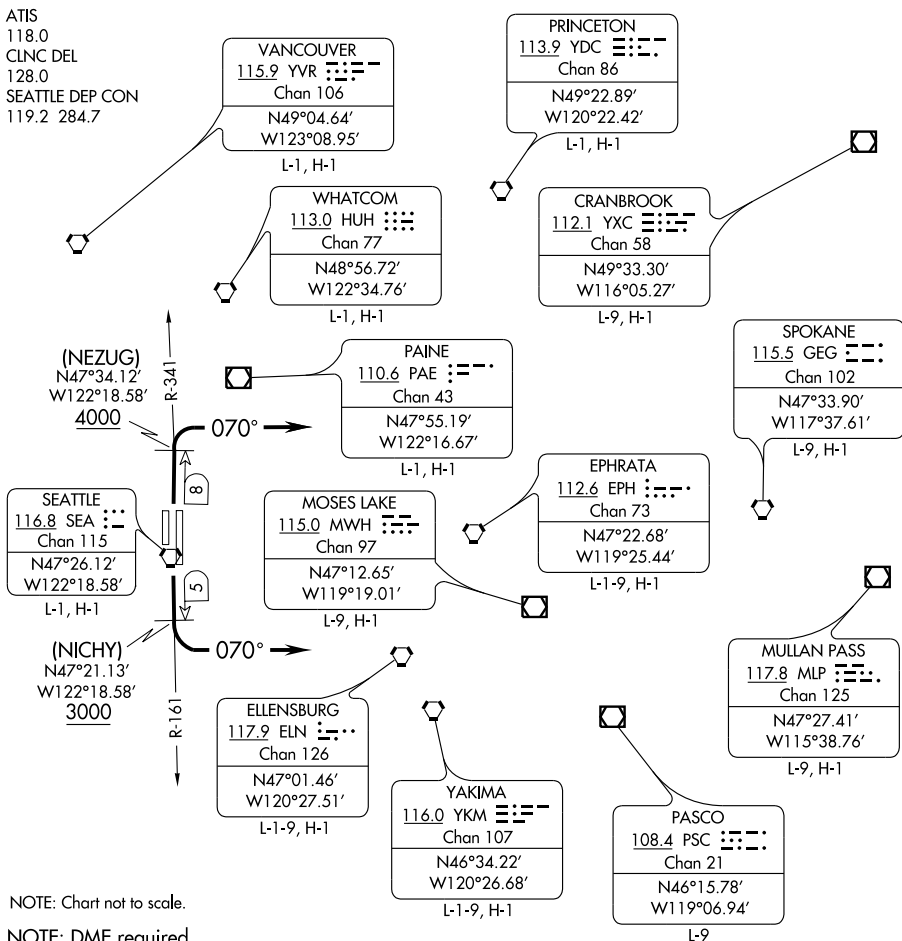
NW-1, 21 DEC 2006 to 18 JAN 2007

KTSAP TWO DEPARTURE (RNAV)

MOUNTAIN FIVE DEPARTURE

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

SL-582 (FAA)



NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007

NOTE: Chart not to scale.

NOTE: DME required.

NOTE: Take-off Rwy 16C/L requires a minimum climb of 560' per NM to 3000'.

NOTE: Take-off Rwy 34C/R requires a minimum climb of 570' per NM to 4000'.

NOTE: Cross departure end of runways at or above 18' AGL.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16C/L: Intercept and proceed via the SEA R-161, cross SEA 5 DME at or above 3000', then turn left heading 070° for radar vectors to assigned route. Thence....

TAKE-OFF RUNWAYS 34C/R: Intercept and proceed via the SEA R-341, cross SEA 8 DME at or above 4000', then turn right heading 070° for radar vectors to assigned route. Thence....

....Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA.

LOST COMMUNICATIONS: If no contact with ATC leaving 4000', proceed direct SEA VORTAC, then proceed on course.

MOUNTAIN FIVE DEPARTURE

SEATTLE, WASHINGTON
SEATTLE-TACOMA INTL (SEA)

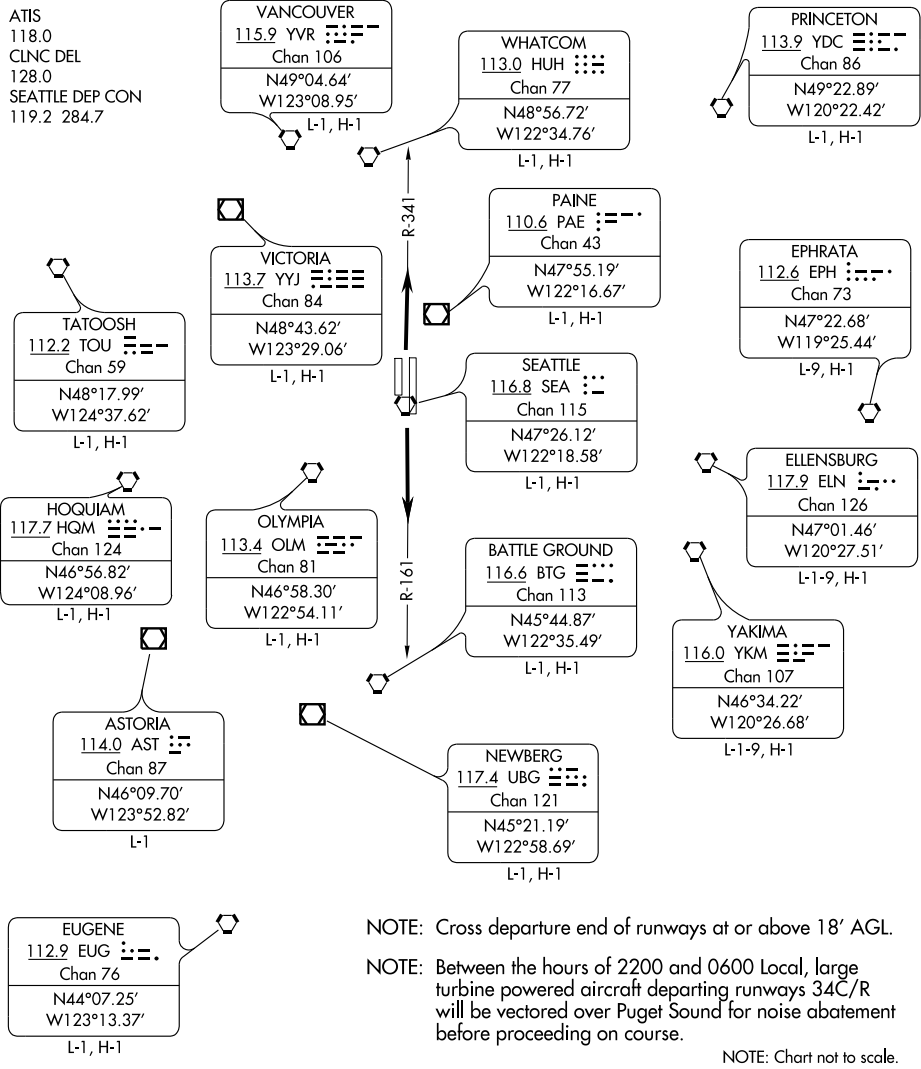
SEATTLE THREE DEPARTURE

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

SL-582 (FAA)

NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16C/L: Intercept and proceed via the SEA R-161, expect radar vectors to assigned route.

TAKE-OFF RUNWAYS 34C/R: Intercept and proceed via the SEA R-341, expect radar vectors to assigned route.

SEATTLE THREE DEPARTURE

SEATTLE, WASHINGTON
SEATTLE-TACOMA INTL (SEA)

SUMMA SIX DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

ATIS
118.0
CLNC DEL
128.0
SEATTLE DEP CON
119.2 284.7

SEATTLE
116.8 SEA : : :
Chan 115
N47°26.12' W122°18.58'

(NEZUG)
N47°34.12'
W122°18.58'
4000

PAINE
110.6 PAE : : :
Chan 43

(NEVJO)
N47°15.13'
W122°18.58'

OLYMPIA
113.4 OLM : : :
Chan 81

SUMMA
N46°37.07'
W121°59.30'

BAKER CITY
115.3 BKE : : :
Chan 100
N44°50.44' W117°48.47'
L-9, H-1

LAKEVIEW
112.0 LKV : : :
Chan 57
N42°29.57' W120°30.43'
L-1-7, H-3

NOTE: Take-off Runways 34C/R requires a minimum climb of 570' per NM to 4000'.

NOTE: Cross departure end of runways at or above 18' AGL.

NOTE: RADAR and DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16C/L: Intercept and proceed via SEA R-161; at the SEA 11 DME turn left heading 130° to intercept and proceed via SEA R-146 to SUMMA INT.

TAKE-OFF RUNWAYS 34C/R: Intercept and proceed via SEA R-341, cross SEA 8 DME at or above 4000', then turn right heading 070°; cross the PAE R-139 then turn right heading 165° to intercept and proceed via the SEA R-146 to SUMMA INT.

BAKER CITY TRANSITION (SUMMA6.BKE): From over SUMMA INT via OLM R-100 and BKE R-283 to BKE VOR/DME.

LAKEVIEW TRANSITION (SUMMA6.LKV): From over SUMMA INT via SEA R-146 and LKV R-327 to LKV VORTAC.

SUMMA SIX DEPARTURE

NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007

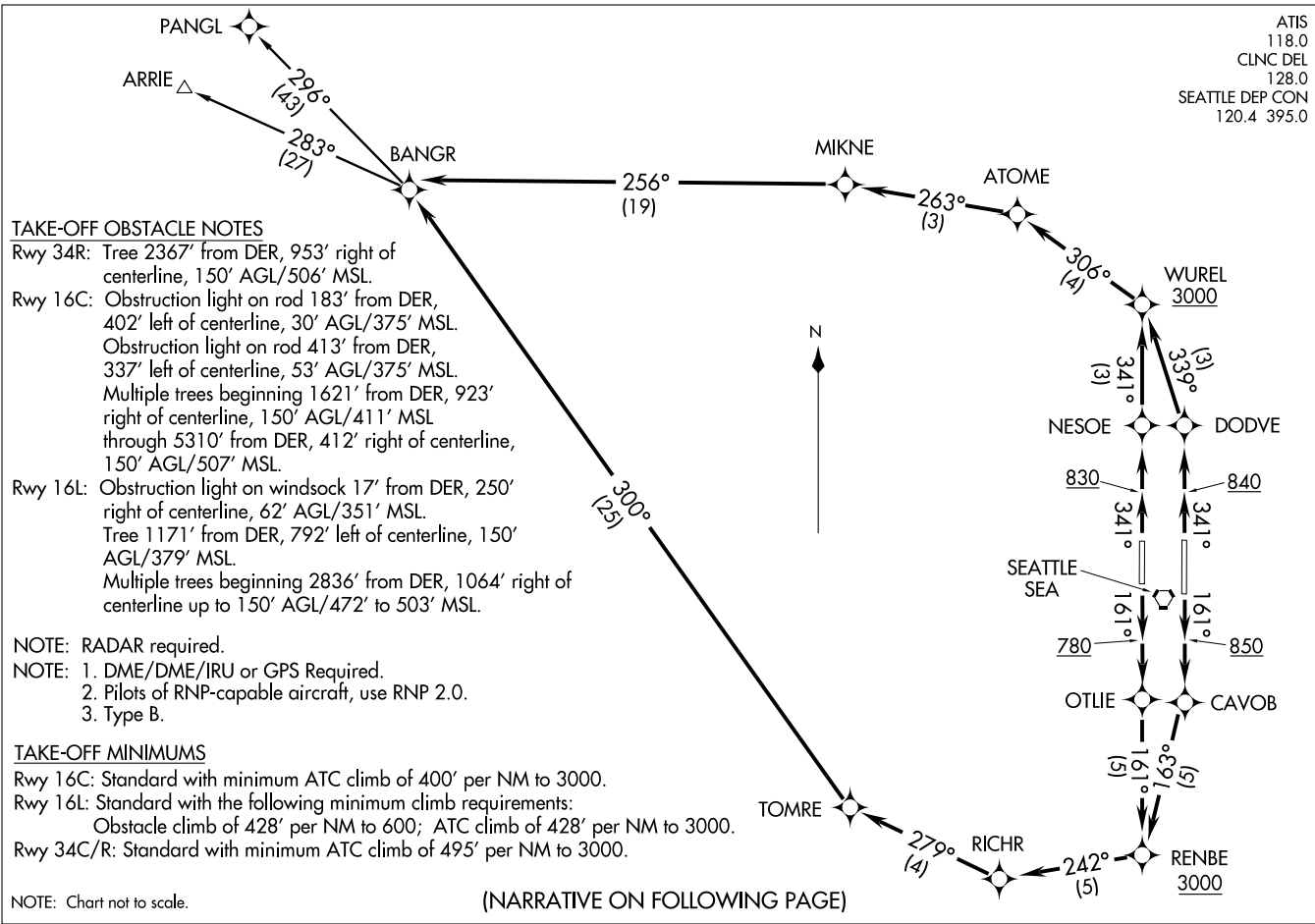
ATIS
118.0
CLNC DEL
128.0
SEATTLE DEP CON
120.4 395.0

(BANGR5.BANGR) 06327

BANGR FIVE DEPARTURE (RNAV)

SI-582 (FAA)

SEATTLE-TACOMA INTL (SEA)
SEATTLE WASHINGTON



BANGR FIVE DEPARTURE (RNAV)
(BANGR5.BANGR) 06327

SEATTLE WASHINGTON
SEATTLE-TACOMA INTL (SEA)

BANGR FIVE DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16L: Climb via 161° heading to at or above 850, then direct CAVOB, then via 163° track to RENBE, cross RENBE at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 16C: Climb via 161° heading to at or above 780, then direct OTLIE, then via 161° track to RENBE, cross RENBE at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 34C: Climb via 341° heading to at or above 830, then direct NESOE, then via 341° track to WUREL, cross WUREL at or above 3000, then via depicted route to BANGR, thence. . . .

TAKE-OFF RUNWAY 34R: Climb via 341° heading to at or above 840, then direct DODVE, then via 339° track to WUREL, cross WUREL at or above 3000, then via depicted route to BANGR, thence. . . .

. . . . via assigned route. Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

ARRIE TRANSITION (BANGR5.ARRIE)

PANGL TRANSITION (BANGR5.PANGL)

NW-1, 21 DEC 2006 to 18 JAN 2007

NW-1, 21 DEC 2006 to 18 JAN 2007