

# WSSS

Singapore Changi

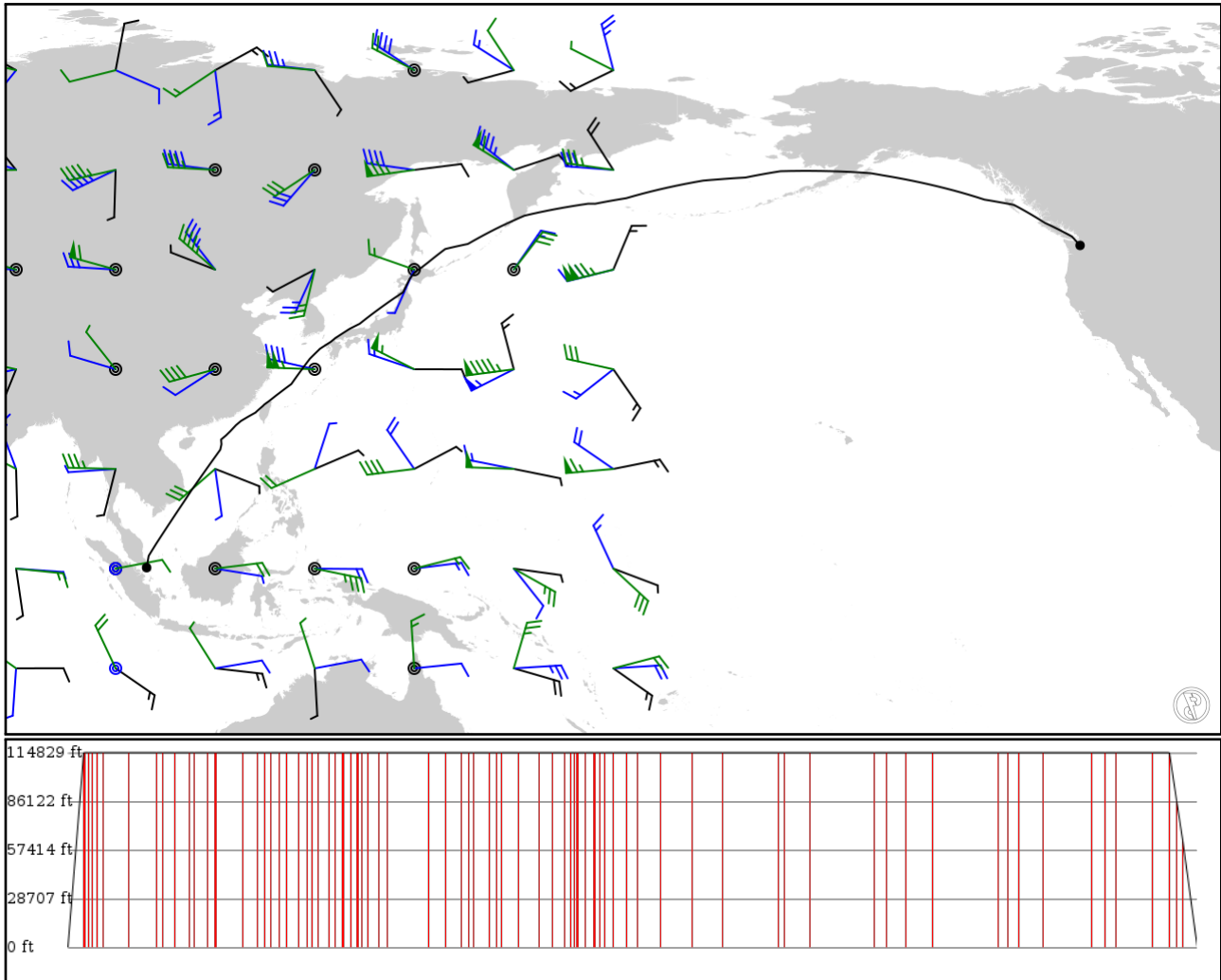
# KSEA

Seattle Tacoma Intl

2024/06/07 2133Z

WSSS RAXIM **M771** DULOP **Q1** CARSO **V551** SUKER RAMUS GRUPA CONGA **V2** ELATO **A1** MKG MKG **A1** HLG HLG **A1**  
IGMON **Z40** ESBIS **OTR30** FUE **V28** DGC **Y14** SAMON **Z17** MRE **V13** CHE **Y116** AWE **V8** LUBEK **Y116** MVE **G583** LATAK  
**G103** NETRI **B932** RIMLI **G816** LUMES NYMPH **G469** SPY **R591** CHUUK **R341** ODK **J123** CJAYY **B757** KATCH **TR18**  
YZP **J523** YZT **J502** YYJ KSEA

7127.43 nm / 13200.00 km



## Notes

Basic altitude profile:

- Ascent Rate: 2500ft/min
- Ascent Speed: 250kts
- Cruise Altitude: 35000ft
- Cruise Speed: 420kts
- Descent Rate: 1500ft/min
- Descent Speed: 250kts

Options:

- Use NATs: yes

- Use PACOTS: yes
- Use low airways: yes
- Use high airways: yes

## Route

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
WSSS	-	1.35561	0 ft	-	Singapore Changi
APT	-	103.98800	0 m		
RAXIM	-	3.05500	35,000 ft	103	-
FIX	-	104.28700	10,668 m		
OTLON	M771	3.13111	35,000 ft	5	-
FIX	AWY-HI	104.33500	10,668 m		
VISAT	M771	3.43889	35,000 ft	21	-
FIX	AWY-HI	104.52600	10,668 m		
DUBSA	M771	3.81694	35,000 ft	26	-
FIX	AWY-HI	104.76100	10,668 m		
DAMOG	M771	4.20694	35,000 ft	27	-
FIX	AWY-HI	105.00400	10,668 m		
DOLOX	M771	4.81139	35,000 ft	42	-
FIX	AWY-HI	105.38000	10,668 m		
DUDIS	M771	7.00000	35,000 ft	156	-
FIX	AWY-HI	106.80900	10,668 m		
DAGAG	M771	9.46333	35,000 ft	176	-
FIX	AWY-HI	108.44200	10,668 m		
SUDUN	M771	9.99278	35,000 ft	38	-
FIX	AWY-HI	108.79600	10,668 m		
DAMVO	M771	11.10830	35,000 ft	80	-
FIX	AWY-HI	109.54500	10,668 m		
DOXAR	M771	12.36670	35,000 ft	90	-
FIX	AWY-HI	110.37800	10,668 m		
NITOM	M771	12.74190	35,000 ft	27	-
FIX	AWY-HI	110.64000	10,668 m		
DAMEL	M771	13.97830	35,000 ft	89	-
FIX	AWY-HI	111.51000	10,668 m		
34BC	M771	14.56670	35,000 ft	42	-
FIX	AWY-HI	111.92500	10,668 m		
DONDA	M771	14.70330	35,000 ft	9	-
FIX	AWY-HI	112.02200	10,668 m		
DOSUT	M771	17.03330	35,000 ft	169	-
FIX	AWY-HI	113.68000	10,668 m		
DULOP	M771	18.23670	35,000 ft	87	-
FIX	AWY-HI	114.54300	10,668 m		
CARSO	Q1	19.00000	35,000 ft	46	-
FIX	AWY-HI	114.71000	10,668 m		
SUKER	V551	19.67600	35,000 ft	40	-
FIX	AWY-HI	114.65300	10,668 m		
RAMUS	-	20.26090	35,000 ft	52	-
FIX	-	115.35200	10,668 m		
GRUPA	-	20.84560	35,000 ft	48	-
FIX	-	115.95000	10,668 m		
CONGA	-	21.73400	35,000 ft	70	-
FIX	-	116.78500	10,668 m		
ELATO	V2	22.33330	35,000 ft	53	-
FIX	AWY-HI	117.50000	10,668 m		
ANPOG	A1	22.60420	35,000 ft	29	-
FIX	AWY-HI	117.95400	10,668 m		
KADLO	A1	22.95510	35,000 ft	38	-
FIX	AWY-HI	118.54200	10,668 m		
MKG	A1	23.56170	35,000 ft	70	MAGONG TACAN

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
DME	AWY-HI	119.62800	10,668 m		
MKG	-	23.59540	35,000 ft	2	MAGONG (PENGHU ISLAND)
VOR	-	119.63700	10,668 m		
SWORD	A1	24.00250	35,000 ft	35	-
FIX	AWY-HI	120.09400	10,668 m		
HLG	A1	24.55980	35,000 ft	48	HOULONG
VOR	AWY-HI	120.72700	10,668 m		
HLG	-	24.64000	35,000 ft	5	HOULONG VOR-DME
DME	-	120.78300	10,668 m		
APU	A1	25.17690	35,000 ft	51	ANBU (TAIPEI)
VOR	AWY-HI	121.52200	10,668 m		
ANNNA	A1	25.57180	35,000 ft	36	-
FIX	AWY-HI	122.02200	10,668 m		
DRAKE	A1	25.61560	35,000 ft	4	-
FIX	AWY-HI	122.07800	10,668 m		
AISAR	A1	25.94750	35,000 ft	30	-
FIX	AWY-HI	122.49300	10,668 m		
OSTAR	A1	26.33170	35,000 ft	35	-
FIX	AWY-HI	123.00000	10,668 m		
BULAN	A1	27.09170	35,000 ft	70	-
FIX	AWY-HI	124.00000	10,668 m		
IGMON	A1	27.62210	35,000 ft	49	-
FIX	AWY-HI	124.72100	10,668 m		
ESBIS	Z40	31.25350	35,000 ft	258	-
FIX	AWY-HI	127.38100	10,668 m		
FUE	OTR30	32.66860	35,000 ft	112	FUKUE
VOR	AWY-HI	128.82700	10,668 m		
DGC	V28	33.67620	35,000 ft	99	FUKUOKA
VOR	AWY-HI	130.39000	10,668 m		
STOUT	Y14	34.19070	35,000 ft	43	-
FIX	AWY-HI	131.01600	10,668 m		
HALNA	Y14	34.53380	35,000 ft	33	-
FIX	AWY-HI	131.53600	10,668 m		
MIHOU	Y14	35.53110	35,000 ft	97	-
FIX	AWY-HI	133.09400	10,668 m		
DRIPS	Y14	35.90890	35,000 ft	42	-
FIX	AWY-HI	133.83600	10,668 m		
SAMON	Y14	36.24290	35,000 ft	38	-
FIX	AWY-HI	134.50300	10,668 m		
CELCA	Z17	37.48850	35,000 ft	107	-
FIX	AWY-HI	136.10100	10,668 m		
NOMAS	Z17	38.91380	35,000 ft	125	-
FIX	AWY-HI	138.03800	10,668 m		
GEPPA	Z17	39.89290	35,000 ft	87	-
FIX	AWY-HI	139.44000	10,668 m		
MRE	Z17	40.73880	35,000 ft	77	AOMORI
VOR	AWY-HI	140.70500	10,668 m		
OHMAR	V13	41.30940	35,000 ft	36	-
FIX	AWY-HI	140.98800	10,668 m		
TIKYU	V13	41.68400	35,000 ft	23	-
FIX	AWY-HI	141.17300	10,668 m		
MAMBE	V13	41.86340	35,000 ft	11	-
FIX	AWY-HI	141.26000	10,668 m		
SIRAO	V13	41.96610	35,000 ft	6	-
FIX	AWY-HI	141.31600	10,668 m		
CHE	V13	42.69990	35,000 ft	47	CHITOSE

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
VOR	AWY-HI	141.68600	10,668 m		
ASIBE	Y116	43.45110	35,000 ft	52	-
FIX	AWY-HI	142.28400	10,668 m		
AWE	Y116	43.66730	35,000 ft	15	ASAHIKAWA
VOR	AWY-HI	142.45700	10,668 m		
LUBEK	V8	44.01910	35,000 ft	30	-
FIX	AWY-HI	142.97300	10,668 m		
MVE	Y116	44.30530	35,000 ft	25	MONBETSU
VOR	AWY-HI	143.39500	10,668 m		
BISIV	G583	44.99200	35,000 ft	56	-
FIX	AWY-HI	144.28300	10,668 m		
IKADA	G583	46.00580	35,000 ft	80	-
FIX	AWY-HI	145.54400	10,668 m		
LATAK	G583	46.93330	35,000 ft	74	-
FIX	AWY-HI	146.75800	10,668 m		
NETRI	G103	47.65500	35,000 ft	139	-
FIX	AWY-HI	150.00100	10,668 m		
OTLER	B932	49.80310	35,000 ft	203	-
FIX	AWY-HI	153.97900	10,668 m		
RIMLI	B932	51.70500	35,000 ft	194	-
FIX	AWY-HI	158.11500	10,668 m		
LUMES	G816	53.41170	35,000 ft	347	-
FIX	AWY-HI	167.21600	10,668 m		
NYMPH	-	53.40880	35,000 ft	36	-
FIX	-	168.24000	10,668 m		
ONEIL	G469	54.20240	35,000 ft	164	-
FIX	AWY-HI	172.68100	10,668 m		
PINTT	G469	56.71730	35,000 ft	403	-
FIX	AWY-HI	-176.30700	10,668 m		
CREMR	G469	56.91420	35,000 ft	81	-
FIX	AWY-HI	-173.86900	10,668 m		
SPY	G469	57.15700	35,000 ft	119	SAINT PAUL ISLAND
NDB	AWY-HI	-170.23300	10,668 m		
CHUUK	R591	58.05750	35,000 ft	170	-
FIX	AWY-HI	-165.21500	10,668 m		
ODK	R341	57.77500	35,000 ft	410	KODIAK
VOR	AWY-HI	-152.34000	10,668 m		
CJAYY	J123	57.46410	35,000 ft	61	-
FIX	AWY-HI	-150.53100	10,668 m		
GRIZZ	B757	57.11490	35,000 ft	69	-
FIX	AWY-HI	-148.50200	10,668 m		
HMPTN	B757	56.19440	35,000 ft	158	-
FIX	AWY-HI	-144.00200	10,668 m		
KATCH	B757	54.00000	35,000 ft	304	-
FIX	AWY-HI	-136.00000	10,668 m		
KALTS	TR18	53.62170	35,000 ft	81	-
FIX	AWY-HI	-133.80500	10,668 m		
YZP	TR18	53.25220	35,000 ft	74	SANDSPIT
VOR	AWY-HI	-131.80700	10,668 m		
YZT	J523	50.68410	35,000 ft	225	PORT HARDY
VOR	AWY-HI	-127.36500	10,668 m		
ROYST	J502	49.59140	35,000 ft	108	-
FIX	AWY-HI	-125.12600	10,668 m		
ARRUE	J502	49.07310	26,300 ft	49	-
FIX	AWY-HI	-124.13000	8,016 m		
YYJ	J502	48.72710	19,200 ft	32	VICTORIA

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
VOR	AWY-HI	-123.48400	5,852 m		
KSEA	-	47.45020	0 ft	89	Seattle Tacoma Intl
APT	-	-122.31200	0 m		

## WSSS

Region: SINGAPORE

Timezone: ASIA/SINGAPORE

Runways: 2

Elevation: 20 ft / 6 m

Location: 1.355510 103.988000

Magnetic Var: 0.198 E

## METAR

WSSS 072100Z VRB02KT 9999 FEW018 BKN300 28/26 Q1009 NOSIG

## TAF

TAF WSSS 071700Z 0718/0900 19008KT 9999 FEW015 SCT020 TEMPO 0806/0809 3000 TSRA FEW012CB BKN015

## Frequencies

DEP - 123.70 MHz - SINGAPORE RADAR	DEP - 127.30 MHz - SINGAPORE RADAR
DEP - 133.80 MHz - SINGAPORE RADAR	DEP - 133.25 MHz - SINGAPORE RADAR
DEP - 135.80 MHz - SINGAPORE RADAR	DEP - 134.20 MHz - SINGAPORE RADAR
DEP - 133.35 MHz - SINGAPORE RADAR	DEP - 134.40 MHz - SINGAPORE RADAR
DEP - 128.10 MHz - SINGAPORE RADAR	DEP - 255.40 MHz - SINGAPORE RADAR
DEP - 124.05 MHz - SINGAPORE RADAR	APP - 120.30 MHz - SINGAPORE APPROACH
APP - 124.60 MHz - SINGAPORE APPROACH	APP - 119.30 MHz - SINGAPORE ARRIVAL
TWR - 118.60 MHz - SINGAPORE TOWER	TWR - 118.25 MHz - SINGAPORE TOWER
GND - 124.30 MHz - SINGAPORE GROUND	GND - 121.72 MHz - SINGAPORE GROUND
GND - 121.85 MHz - SINGAPORE GROUND	GND - 121.00 MHz - SINGAPORE GROUND EMERGENCY
GND - 122.55 MHz - SINGAPORE GROUND	CLD - 121.65 MHz - SINGAPORE DELIVERY
CLD - 119.60 MHz - SINGAPORE DELIVERY	REC - 128.60 MHz -
REC - 128.02 MHz -	CHANGI AIRPORT INFORMATION (D-ATIS)
CHANGI AIRPORT ARRIVAL INFORMATION	

## Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
02L	197 ft	13,187 ft	22.88	ASPHALT	0 ft	0 ft
	60 m	4,020 m	22.68		0 m	0 m
20R	197 ft	13,187 ft	202.88	ASPHALT	2,428 ft	390 ft
	60 m	4,020 m	202.68		740 m	119 m
02C	197 ft	13,187 ft	22.88	ASPHALT	0 ft	0 ft
	60 m	4,020 m	22.68		0 m	0 m
20C	197 ft	13,187 ft	202.88	ASPHALT	0 ft	0 ft
	60 m	4,020 m	202.68		0 m	0 m

## Approach Nav aids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
02C	DME	ICE	108.30 MHz	18 nm	-	-	15 ft
				33 km	-		15 m
02L	DME	ICW	110.90 MHz	18 nm	-	-	20 ft
				33 km	-		20 m
20C	DME	ICC	109.70 MHz	18 nm	-	-	15 ft
				33 km	-		15 m
20R	DME	ICH	108.90 MHz	18 nm	-	-	22 ft
				33 km	-		22 m
02C	LOC-ILS	ICE	108.30 MHz	18 nm	22.88	-	20 ft
				33 km	22.68		20 m
02L	LOC-ILS	ICW	110.90 MHz	18 nm	22.88	-	20 ft

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
				33 km	22.68		20 m
20C	LOC-ILS	ICC	109.70 MHz	18 nm	202.88	-	20 ft
				33 km	202.68		20 m
20R	LOC-ILS	ICH	108.90 MHz	18 nm	202.88	-	20 ft
				33 km	202.68		20 m
02C	GS	ICE	108.30 MHz	10 nm	22.88	3.00	20 ft
				19 km	22.68		20 m
02L	GS	ICW	110.90 MHz	10 nm	22.88	3.00	20 ft
				19 km	22.68		20 m
20C	GS	ICC	109.70 MHz	10 nm	202.88	3.00	20 ft
				19 km	202.68		20 m
20R	GS	ICH	108.90 MHz	10 nm	202.88	3.00	20 ft
				19 km	202.68		20 m



## KSEA

Region: UNITED STATES  
Timezone: AMERICA/LOS\_ANGELES  
Runways: 3

Elevation: 432 ft / 132 m  
Location: 47.450200 -122.312000  
Magnetic Var: 14.763 E

## METAR

KSEA 072053Z 02009G17KT 10SM FEW250 22/08 A2997 RMK A02 SLP154 T02220083 56016

## TAF

KSEA 072059Z 0721/0824 35010G17KT P6SM SKC FM080300 36007KT P6SM FEW250 FM080600 03005KT P6SM FEW250 FM081100 VRB

## Frequencies

REC - 118.00 MHz - SEATTLE ATIS	CLD - 128.00 MHz - SEATTLE CLEARANCE
GND - 121.70 MHz - SEATTLE GROUND	TWR - 119.90 MHz - SEATTLE TOWER
TWR - 120.95 MHz - SEATTLE TOWER	APP - 133.65 MHz - SEATTLE APPROACH
DEP - 120.10 MHz - SEATTLE DEPARTURE	

## Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
16L	151 ft	11,904 ft	180.35	CONCRETE	0 ft	400 ft
	46 m	3,628 m	165.58		0 m	122 m
34R	151 ft	11,904 ft	0.35	CONCRETE	0 ft	400 ft
	46 m	3,628 m	345.58		0 m	122 m
16C	151 ft	9,428 ft	180.34	CONCRETE	0 ft	400 ft
	46 m	2,874 m	165.58		0 m	122 m
34C	151 ft	9,428 ft	0.34	CONCRETE	0 ft	397 ft
	46 m	2,874 m	345.58		0 m	121 m
16R	151 ft	8,502 ft	180.34	CONCRETE	0 ft	200 ft
	46 m	2,591 m	165.58		0 m	61 m
34L	151 ft	8,502 ft	0.34	CONCRETE	0 ft	197 ft
	46 m	2,591 m	345.58		0 m	60 m

## Approach Nav aids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
16C	DME	ISZI	111.70 MHz	18 nm	-	-	470 ft
				33 km	-		470 m
16L	DME	ISNQ	110.30 MHz	18 nm	-	-	369 ft
				33 km	-		369 m
16R	DME	ICJL	110.75 MHz	18 nm	-	-	410 ft
				33 km	-		410 m
34C	DME	ITUC	111.70 MHz	18 nm	-	-	470 ft
				33 km	-		470 m
34L	DME	IB EJ	110.75 MHz	18 nm	-	-	410 ft
				33 km	-		410 m
34R	DME	ISEA	110.30 MHz	18 nm	-	-	469 ft
				33 km	-		469 m
16C	LOC-ILS	ISZI	111.70 MHz	18 nm	180.34	-	355 ft
				33 km	165.57		355 m
16L	LOC-ILS	ISNQ	110.30 MHz	18 nm	180.34	-	338 ft
				33 km	165.58		338 m
16R	LOC-ILS	ICJL	110.75 MHz	18 nm	180.34	-	410 ft
				33 km	165.57		410 m

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
34C	LOC-ILS	ITUC	111.70 MHz	18 nm	0.34	-	422 ft
				33 km	345.57		422 m
34L	LOC-ILS	IBEJ	110.75 MHz	18 nm	0.34	-	433 ft
				33 km	345.57		433 m
34R	LOC-ILS	ISEA	110.30 MHz	18 nm	0.34	-	428 ft
				33 km	345.58		428 m
16C	GS	ISZI	111.70 MHz	10 nm	180.67	3.00	418 ft
				19 km	165.91		418 m
16L	GS	ISNQ	110.30 MHz	10 nm	180.69	3.00	425 ft
				19 km	165.92		425 m
16R	GS	ICJL	110.75 MHz	10 nm	180.67	3.00	410 ft
				19 km	165.91		410 m
34C	GS	ITUC	111.70 MHz	10 nm	0.67	3.00	367 ft
				19 km	345.91		367 m
34L	GS	IBEJ	110.75 MHz	10 nm	0.67	3.00	360 ft
				19 km	345.91		360 m
34R	GS	ISEA	110.30 MHz	10 nm	0.69	2.75	355 ft
				19 km	345.92		355 m