

WSSS

Singapore Changi Intl

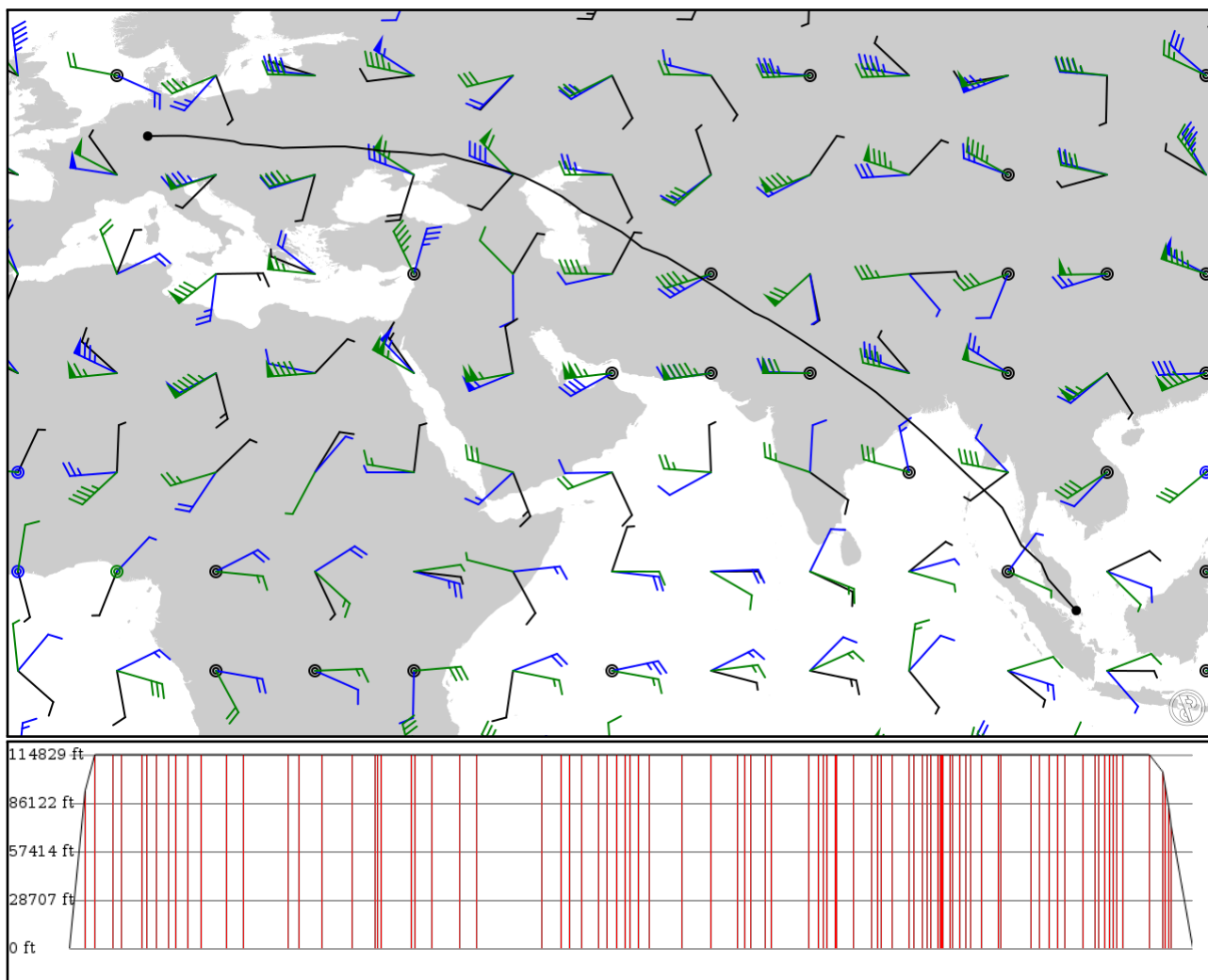
EDDF

Frankfurt

2024/05/03 1814Z

WSSS REDUK R325 PUT L515 OBMOG M770 KAKID M875 JHANG A466 DI J145 REGET N644 LEMOD A909 ABDAN
A846 ATASH A845 TIROM A87 AKT AKT A87 AZABI R122 UP A102 NALEM L32 VALPA W633 BEDBA L69 OSLAN
L984 NIROV M991 MALBE P27 MAKAL L624 LABUK Y444 ELMEK L726 OKG UL984 LONLI EDDF

5606.64 nm / 10383.50 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 APT	-	1.35551 103.98800	0 ft 0 m	-	Singapore Changi Intl
REDUK FIX	-	2.33258 103.08300	28,500 ft 8,687 m	79	-
LATUK FIX	R325 AWY-HI	2.92110 102.56300	35,000 ft 10,668 m	47	-
ANSOM FIX	R325 AWY-HI	4.07330 101.53900	35,000 ft 10,668 m	92	-
VIH VOR	R325 AWY-HI	4.57361 101.09400	35,000 ft 10,668 m	40	IPOH
VAS VOR	R325 AWY-HI	6.18567 100.39700	35,000 ft 10,668 m	105	ALOR SETAR
DUBAX FIX	R325 AWY-HI	6.43219 100.12700	35,000 ft 10,668 m	21	-
UTHAI FIX	R325 AWY-HI	7.00214 99.49690	35,000 ft 10,668 m	50	-
OSVIP FIX	R325 AWY-HI	7.71475 98.73580	35,000 ft 10,668 m	62	-
PUT VOR	R325 AWY-HI	8.11523 98.30630	35,000 ft 10,668 m	35	PHUKET
MUDMA FIX	L515 AWY-HI	9.01386 97.85430	35,000 ft 10,668 m	60	-
IKULA FIX	L515 AWY-HI	10.00190 97.35390	35,000 ft 10,668 m	66	-
OBMOG FIX	L515 AWY-HI	11.90190 96.39190	35,000 ft 10,668 m	127	-
LALAT FIX	M770 AWY-HI	12.84690 95.41890	35,000 ft 10,668 m	80	-
SADUS FIX	M770 AWY-HI	15.42810 92.63110	35,000 ft 10,668 m	224	-
MEPEL FIX	M770 AWY-HI	16.03330 92.00000	35,000 ft 10,668 m	51	-
DABEN FIX	M770 AWY-HI	17.40690 90.54580	35,000 ft 10,668 m	117	-
BUBKO FIX	M770 AWY-HI	19.18440 88.66420	35,000 ft 10,668 m	151	-
BUMRO FIX	M770 AWY-HI	20.47080 87.20000	35,000 ft 10,668 m	113	-
KAKID FIX	M770 AWY-HI	20.64330 86.99500	35,000 ft 10,668 m	15	-
MAVLA FIX	M875 AWY-HI	20.82080 86.79170	35,000 ft 10,668 m	15	-
AGROM FIX	M875 AWY-HI	22.52920 84.83330	35,000 ft 10,668 m	149	-
DADSO FIX	M875 AWY-HI	22.75280 84.57640	35,000 ft 10,668 m	19	-
LAPAN FIX	M875 AWY-HI	23.73190 83.43560	35,000 ft 10,668 m	86	-
DOMET FIX	M875 AWY-HI	25.14170 81.44170	35,000 ft 10,668 m	138	-
IGONA FIX	M875 AWY-HI	25.96670 80.25830	35,000 ft 10,668 m	81	-
BUTOP	M875	29.32920	35,000 ft	327	-

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
FIX	AWY-HI	75.39890	10,668 m		
GUGAL	M875	30.24170	35,000 ft	92	-
FIX	AWY-HI	73.96580	10,668 m		
NIKET	M875	30.68190	35,000 ft	45	-
FIX	AWY-HI	73.25830	10,668 m		
JHANG	M875	31.26670	35,000 ft	60	-
FIX	AWY-HI	72.29940	10,668 m		
DI	A466	31.91260	35,000 ft	82	DERA ISMAIL KHAN
VOR	AWY-HI	70.88570	10,668 m		
REGET	J145	32.37000	35,000 ft	45	-
FIX	AWY-HI	70.18310	10,668 m		
DOBAT	N644	32.86670	35,000 ft	48	-
FIX	AWY-HI	69.43330	10,668 m		
MESRA	N644	33.27750	35,000 ft	40	-
FIX	AWY-HI	68.79890	10,668 m		
PATOX	N644	33.54830	35,000 ft	25	-
FIX	AWY-HI	68.42000	10,668 m		
NEVIV	N644	33.98000	35,000 ft	41	-
FIX	AWY-HI	67.78330	10,668 m		
VUVEN	N644	34.54170	35,000 ft	54	-
FIX	AWY-HI	66.92500	10,668 m		
LEMOD	N644	36.16670	35,000 ft	161	-
FIX	AWY-HI	64.29170	10,668 m		
UTAM	A909	37.62170	35,000 ft	144	-
FIX	AWY-HI	61.89670	10,668 m		
ABDAN	A909	38.59500	35,000 ft	133	-
FIX	AWY-HI	59.36670	10,668 m		
MAXAT	A846	39.06860	35,000 ft	40	-
FIX	AWY-HI	58.75920	10,668 m		
DOKAN	A846	39.40970	35,000 ft	29	-
FIX	AWY-HI	58.30610	10,668 m		
ATASH	A846	40.22780	35,000 ft	70	-
FIX	AWY-HI	57.21940	10,668 m		
BEDEV	A845	40.52500	35,000 ft	30	-
FIX	AWY-HI	56.67030	10,668 m		
TIROM	A845	42.24280	35,000 ft	183	-
FIX	AWY-HI	53.28890	10,668 m		
INRED	A87	42.87640	35,000 ft	53	-
FIX	AWY-HI	52.45190	10,668 m		
GIRUL	A87	43.14060	35,000 ft	22	-
FIX	AWY-HI	52.09500	10,668 m		
BALIG	A87	43.32890	35,000 ft	15	-
FIX	AWY-HI	51.83830	10,668 m		
AKT	A87	43.85860	35,000 ft	45	AKTAU VOR-DME
DME	AWY-HI	51.10190	10,668 m		
AKT	-	43.87230	35,000 ft	1	AKTAU
VOR	-	51.06440	10,668 m		
AZABI	A87	44.74000	35,000 ft	85	-
FIX	AWY-HI	49.50000	10,668 m		
TOLRU	R122	45.64810	35,000 ft	95	-
FIX	AWY-HI	47.65250	10,668 m		
UP	R122	45.92720	35,000 ft	29	ZENZELI
NDB	AWY-HI	47.06030	10,668 m		
ABTON	A102	46.02060	35,000 ft	13	-
FIX	AWY-HI	46.77140	10,668 m		
LUGEP	A102	46.41830	35,000 ft	58	-

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
FIX	AWY-HI	45.49690	10,668 m		
BAKAM	A102	46.94330	35,000 ft	83	-
FIX	AWY-HI	43.63110	10,668 m		
SOMRO	A102	47.08560	35,000 ft	23	-
FIX	AWY-HI	43.09920	10,668 m		
TUBNA	A102	47.33470	35,000 ft	42	-
FIX	AWY-HI	42.13640	10,668 m		
OBETI	A102	47.46580	35,000 ft	22	-
FIX	AWY-HI	41.61360	10,668 m		
KA	A102	47.58780	35,000 ft	21	KONSTANTINOVSK
NDB	AWY-HI	41.11500	10,668 m		
ABLOG	A102	47.80560	35,000 ft	32	-
FIX	AWY-HI	40.37610	10,668 m		
KL	A102	47.88530	35,000 ft	12	KRASNY SULIN
NDB	AWY-HI	40.10000	10,668 m		
DERIB	A102	47.92640	35,000 ft	8	-
FIX	AWY-HI	39.90830	10,668 m		
NALEM	A102	47.95000	35,000 ft	4	-
FIX	AWY-HI	39.80830	10,668 m		
VALPA	L32	48.18190	35,000 ft	37	-
FIX	AWY-HI	38.94060	10,668 m		
BELOL	W633	48.15000	35,000 ft	14	-
FIX	AWY-LO	38.57920	10,668 m		
BEDBA	W633	48.07470	35,000 ft	36	-
FIX	AWY-HI	37.68280	10,668 m		
LAMIV	L69	48.15810	35,000 ft	28	-
FIX	AWY-HI	36.97530	10,668 m		
KOSIR	L69	48.22670	35,000 ft	26	-
FIX	AWY-HI	36.32830	10,668 m		
DNP	L69	48.35980	35,000 ft	49	DNIPRO
VOR	AWY-HI	35.10310	10,668 m		
OSLAN	L69	48.47140	35,000 ft	84	-
FIX	AWY-HI	32.98440	10,668 m		
LORDU	L984	48.52440	35,000 ft	15	-
FIX	AWY-HI	32.60140	10,668 m		
NIROV	L984	48.96640	35,000 ft	150	-
FIX	AWY-HI	28.84920	10,668 m		
TAKET	M991	48.97000	35,000 ft	39	-
FIX	AWY-HI	27.84170	10,668 m		
OTRAK	M991	48.94890	35,000 ft	45	-
FIX	AWY-HI	26.68610	10,668 m		
GOTRA	M991	48.91330	35,000 ft	42	-
FIX	AWY-HI	25.59830	10,668 m		
IVF	M991	48.88420	35,000 ft	35	IVANO-FRANKIVSK
VOR	AWY-HI	24.69140	10,668 m		
MALBE	M991	48.82390	35,000 ft	91	-
FIX	AWY-HI	22.37500	10,668 m		
UDREL	P27	49.01030	35,000 ft	61	-
FIX	AWY-HI	20.83610	10,668 m		
PPD	P27	49.06470	35,000 ft	19	TATRY
VOR	AWY-LO	20.35010	10,668 m		
LIPMU	P27	49.12310	35,000 ft	28	-
FIX	AWY-LO	19.62310	10,668 m		
RUTKI	P27	49.17330	35,000 ft	26	-
FIX	AWY-LO	18.94010	10,668 m		
ZLA	P27	49.20290	35,000 ft	16	ZILINA

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
NDB	AWY-LO	18.51040	10,668 m		
MAKAL	P27	49.24600	35,000 ft	13	-
FIX	AWY-LO	18.16570	10,668 m		
LABUK	L624	49.49850	35,000 ft	33	-
FIX	AWY-HI	17.41080	10,668 m		
ELMEK	Y444	49.90390	35,000 ft	133	-
FIX	AWY-HI	14.02990	10,668 m		
OKG	L726	50.06510	31,900 ft	63	CHEB
VOR	AWY-HI	12.40570	9,723 m		
ABERU	UL984	50.06920	29,300 ft	12	-
FIX	AWY-HI	12.09370	8,931 m		
KULOK	UL984	50.07280	25,500 ft	17	-
FIX	AWY-HI	11.63050	7,772 m		
LONLI	UL984	50.07470	22,100 ft	15	-
FIX	AWY-HI	11.22640	6,736 m		
EDDF	-	50.03260	0 ft	103	Frankfurt
APT	-	8.54067	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 031800Z 14003KT 110V180 9999 FEW016 FEW018TCU FEW020CB BKN300 29/26 Q1008 RETS NOSIG

TAF

TAF WSSS 031700Z 0318/0500 22006KT 9999 FEW015 SCT020 TEMPO 0321/0401 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

EDDF

Region: GERMANY - CIVIL
Timezone: EUROPE/BERLIN
Runways: 4

Elevation: 362 ft / 110 m
Location: 50.032600 8.540670
Magnetic Var: 3.171 E

METAR

EDDF 031750Z AUTO VRB02KT CAVOK 17/05 Q1015 NOSIG

TAF

TAF EDDF 031700Z 0318/0424 24006KT CAVOK BECMG 0319/0321 VRB03KT BECMG 0406/0408 08005KT BECMG 0408/0410 15006KT

Frequencies

REC - 118.02 MHz - ATIS ARRIVAL
GND - 121.80 MHz - GROUND
GND - 121.70 MHz - APRON RAMP/TAXI
GND - 121.85 MHz - APRON RAMP/TAXI
TWR - 118.77 MHz - TOWER
TWR - 124.85 MHz - TOWER
TWR - 136.50 MHz - TOWER
APP - 127.27 MHz - FRANKFURT DIRECT
APP - 125.35 MHz - LANGEN RADAR
APP - 120.80 MHz - LANGEN RADAR
APP - 136.12 MHz - LANGEN RADAR

REC - 118.72 MHz - ATIS DEPARTURE
GND - 121.65 MHz - APRON RAMP/TAXI
GND - 121.95 MHz - APRON RAMP/TAXI
GND - 121.75 MHz - APRON RAMP/TAXI
TWR - 119.90 MHz - TOWER
TWR - 127.32 MHz - TOWER
CLD - 121.90 MHz - CLEARANCE DELIVERY
APP - 118.50 MHz - FRANKFURT DIRECT
APP - 126.55 MHz - LANGEN RADAR
APP - 120.15 MHz - LANGEN RADAR
APP - 119.02 MHz - LANGEN RADAR

Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
07L	148 ft	9,194 ft	69.56	CONCRETE	0 ft	0 ft
	45 m	2,802 m	66.39		0 m	0 m
25R	148 ft	9,194 ft	249.59	CONCRETE	0 ft	0 ft
	45 m	2,802 m	246.42		0 m	0 m
07C	197 ft	13,134 ft	69.57	ASPHALT	0 ft	203 ft
	60 m	4,003 m	66.40		0 m	62 m
25C	197 ft	13,134 ft	249.61	ASPHALT	0 ft	935 ft
	60 m	4,003 m	246.44		0 m	285 m
07R	148 ft	13,134 ft	69.59	ASPHALT	0 ft	213 ft
	45 m	4,003 m	66.42		0 m	65 m
25L	148 ft	13,134 ft	249.63	ASPHALT	0 ft	1,775 ft
	45 m	4,003 m	246.46		0 m	541 m
18	148 ft	13,083 ft	179.64	ASPHALT	0 ft	0 ft
	45 m	3,988 m	176.47		0 m	0 m
36	148 ft	13,083 ft	359.64	ASPHALT	0 ft	121 ft
	45 m	3,988 m	356.47		0 m	37 m

Approach Nav aids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
07L	DME	IFNE	111.75 MHz	18 nm	-	-	357 ft
				33 km	-		357 m
25C	DME	IFCW	111.55 MHz	18 nm	-	-	364 ft
				33 km	-		364 m
25R	DME	IFNW	111.35 MHz	18 nm	-	-	357 ft
				33 km	-		357 m

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
07C	LOC-ILS	IFCE	110.55 MHz	18 nm	69.59	-	362 ft
				33 km	66.42		362 m
07L	LOC-ILS	IFNE	111.75 MHz	18 nm	69.58	-	362 ft
				33 km	66.41		362 m
07R	LOC-ILS	IFSE	110.95 MHz	18 nm	69.61	-	362 ft
				33 km	66.44		362 m
25C	LOC-ILS	IFCW	111.55 MHz	18 nm	249.59	-	362 ft
				33 km	246.42		362 m
25L	LOC-ILS	IFSW	111.15 MHz	18 nm	249.61	-	362 ft
				33 km	246.44		362 m
25R	LOC-ILS	IFNW	111.35 MHz	18 nm	249.58	-	362 ft
				33 km	246.41		362 m
07C	GS	IFCE	110.55 MHz	10 nm	69.59	3.00	362 ft
				19 km	66.42		362 m
07L	GS	IFNE	111.75 MHz	10 nm	69.58	3.00	362 ft
				19 km	66.41		362 m
07R	GS	IFSE	110.95 MHz	10 nm	69.61	3.00	362 ft
				19 km	66.44		362 m
25C	GS	IFCW	111.55 MHz	10 nm	249.59	3.00	362 ft
				19 km	246.42		362 m
25L	GS	IFSW	111.15 MHz	10 nm	249.61	3.00	362 ft
				19 km	246.44		362 m
25R	GS	IFNW	111.35 MHz	10 nm	249.58	3.00	362 ft
				19 km	246.41		362 m