1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm	Beam	Orbital	Chan	Boresight		Space Antenna Character			Space	Shap	Space Ant Gain		Earth	Polarization		EIRP	Designation	Satellite	Group	Status	Re-
Symb	Identification	Position°	nel	Long °	Lat °	Major°	Minor°	Orient °	Antenna	Beam	Co-pol	X-pol	Antenna	Typ	Angle°	dBW	of Emission	Identification	Code		marks
ARS	ARS27500	17 00	6	48 30	24 60	3 84	1 20	138 00	R13TSS		37 81		MODRES	CL		57 81	27M0F8W			P	
AUS	AUS00600	152 00	6	136 60	30 90	2 41	1 52	161 00	R13TSS		38 80		MODRES	CL		58 40	27M0F8W			P	
AUS	AUS00800	164 00	6	145 90	21 70	3 62	1 83	138 00	R13TSS		36 73		MODRES	CL		58 83	27M0F8W			P	
BIH	BIH14800	34 00	6	17 77	44 32	0 62	0 60	166 84	R13TSS		48 71		MODRES	CR		58 91	27M0F8W			P	5, 7
BOT	BOT29700	-1 00	6	23 30	22 20	2 13	1 50	36 00	R13TSS		39 40		MODRES	CL		58 80	27M0F8W			P	
CHN	CHN15400	62 00	6	83 90	40 50	2 75	2 05	177 00	R13TSS		36 94		MODRES	CR		58 34	27M0F8W			P	
CHN	CHN16100	92 00	6	118 10	31 10	2 49	1 89	117 00	R13TSS		38 21		MODRES	CR		59 51	27M0F8W			P	
CLN	CLN21900	50 00	6	80 60	7 70	1 18	0 60	106 00	R13TSS		45 95		MODRES	CR		58 65	27M0F8W			P	
D	D 08700	-19 00	6	9 60	49 90	1 82	0 72	147 00	R13TSS		43 78		MODRES	CL		60 58	27M0F8W			P	7
F	F2_A2722	-7 00	6	3 40	45 60	2 00	0 95	155 00	R13TSS		42 70		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2722	-7 00	6	3 40	45 60	2 00	0 95	155 00	R13TSS		42 70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2762	-7 00	6	3 40	45 60	2 00	0 95	155 00	R13TSS		42 70		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2722	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2762	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	58 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3322	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158.00	58.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3362	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158.00	58.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2722	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158.00	58 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2762	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3322	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	58 00	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3362	-7 00	6	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	58 00	33M0G9W	RADIOSAT-3	19	A	
F	NCL10000	140 00	6	166 00	-21 00	1 14	0 72	146 00	R13TSS		45 30		MODRES	CR		58 80	27M0F8W		8	P	
F	NCL10001	140 00	6	166 00	-21 00	1 14	0 72	146 00	R13TSS		45.30		MODRES	CR		58 80	27M0F8W		8	P	
F	WAL10200	140 00	6	-176 80	-14 00	0 74	0 60	29 00	R13TSS		47 97		MODRES	CR		59 37	27M0F8W		8	P	
F	WAL10201	140 00	6	-176 80	-14 00	0 74	0 60	29 00	R13TSS		47 97		MODRES	CR		59.37	27M0F8W		8	P	
F /EUT	E2WA7DA2	29 00	6	1 90	49 00	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		51 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	6	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	6	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CL		60 50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29 00	6	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70		R13RES	CL		53 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29 00	6	-12 50	35 50	3 75	1 27	25 00	R13TSS		38 30		R13RES	CL		57 30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29 00	6	35 40	38 70	2 25	0 93	174 00	R13TSS		41 70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	6	8 00	49 70	2 84	1 45	26 00	R13TSS		39 30		R13RES	CL		51 30	27M0F9W	EUROPESAT-1	16	AE	8
FIN	FIN10300	5 00	6	22 50	64 50	1 38	0 76	171 00	R13TSS		44 24		MODRES	CL		62 84	27M0F8W			P	
GNB	GNB30400	-30 00	6	-15 00	12 00	0 90	0 60	172 00	R13TSS		47.12		MODRES	CL		58 22	27M0F8W			P	7
IND	IND03701	68 00	6	93 00	25 50	1 46	1 13	40 00	R13TSS		42 27		MODRES	CL		58 97	27M0F8W			P	
IND	IND04500	56 00	6	76 20	19 50	1 58	1 58	21 00	R13TSS		40 47		MODRES	CL		58.57	27M0F8W			P	
INS	INS02800	80 20	6	101 50	0 00	3 00	1 20	133 00	R13TSS		38 88		MODRES	CL		58.26	27M0F8W			P	
IRL	IRL21100	-33 50	6	-8 20	53 20	0 84	0 60	162 00	R13TSS		47 42		MODRES	CR		59 32	27M0F8W			P	7
KOR	KO11201D	116 00	6	127 50	36 00	1 24	1 02	168 00	R13TSS		43.40		R13RES	CL		63.60	27M0G7W	KOREASAT-1	20	AE	
KOR	KOR11200	110 00	6	127 50	36 00	1 24	1 02	168.00	R13TSS		43 43		MODRES	CL		58 63	27M0F8W		20	P	
KOR	KOR11201	116 00	6	127 50	36 00	1 24	1 02	168 00	R13TSS		43 40		R13RES	CL		63 60	27M0F8W	KOREASAT-1	20	AE	
LAO	LAO28400	74 00	6	103 70	18 10	2 16	0 78	133 00	R13TSS		42.18		MODRES	CR		58 78	27M0F8W			P	
MAU	MAU24200	29 00	6	59 80	-18 90	1 62	1 24	55.00	R13TSS		41 42		MODRES	CR		59.02	27M0F8W			P	
MHL	MHL00000	146 00	6	167 64	9 83	2 07	0.90	157 42	R13TSS		41.75		MODRES	CR		58.95	27M0F8W			P	7
MKD	MKD14800	23 00	6	21 61	41 58	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			P	5, 7
MLA	MLA22800	86.00	6	114 10	3 90	2 34	1 12	45.00	R13TSS		40.26		MODRES	CR		58.56	27M0F8W			P	
MLI	MLI32700	-37.00	6	-2 00	19 00	2 66	1 26	127 00	R13TSS		39 19		MODRES	CR		58 19	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant Gain Co-pol	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
NOR	BIFROS22	-0 80	6	17 00	61 50					NO9	32 00	6 00	MODRES	CR		54 50	27M0FXF	BIFROST-2		A	
NZL	CKH05200	158 00	6	-161 00	-19 80	1 02	0 64	132 00	R13TSS		46 30		MODRES	CL		59 60	27M0F8W		3	P	
NZL	CKH05201	158 00	6	-161 00	-19 80	1 02	0 64	132 00	R13TSS		46.30		MODRES	CL		59.60	27M0F8W		3	P	
PAK	PAK12700	38 00	6	69 60	29.50	2 30	2 16	14 00	R13TSS		37.49		MODRES	CR		58.99	27M0F8W		73	P	
PAK	PAK12701	38 00	6	69 60	29 50	2 30	2 16	14 00	R13TSS		37.49		MODRES	CR		58.99	27M0F8W		73	P	
PNG	PNG13100	110 00	6	147 70	-8 30	2 50	2 18	169 00	R13TSS		37 08		MODRES	CR		59.38	27M0F8W			P	
TCD	TCD14300	-13 00	6	18 10	15 50	3 40	1 72	107 00	R13TSS		36.76		MODRES	CL		58.96	27M0F8W			P	
TGO	TGO22600	-25 00	6	0 80	8 60	1 52	0 60	105 00	R13TSS		44.85		MODRES	CL		58.45	27M0F8W			P	
TUV	TUV00000	176 00	6	177 61	-7.11	0 94	0 60	137.58	R13TSS		46.93		MODRES	CR		58.93	27M0F8W			P	7
USA	GUM33100	122 00	6	144 50	13 10	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		58.38	27M0F8W		15	P	
USA	GUM33101	122 00	6	144 50	13.10	0 60	0 60	0 00	R13TSS		48.88		MODRES	CL		58.38	27M0F8W		15	P	
YEM	YEM26600	11 00	6	44 00	15 67	0.80	0 60	114.88	R13TSS		47.66		MODRES	CR		58.86	27M0F8W			P	7
ZAI	ZAI32300	-19 00	6	21 30	-8 80	2 80	1 52	149.00	R13TSS		38.16		MODRES	CR		59.66	27M0F8W			P	
AFG	AFG24500	50 00	7	70 20	35 50	1 32	1.13	53 00	R13TSS		42.71		MODRES	CR		57.91	27M0F8W			P	
AUS	AUS00400	152 00	7	123 00	-24 20	3 06	2.17	102 00	R13TSS		36 22		MODRES	CR		58.22	27M0F8W		76	P	
AUS	AUS0040A	152 00	7	96 83	-12 19	0.60	0 60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	7
AUS	AUS0040B	152 00	7	105 69	-10.45	0 60	0.60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	7
AUS	AUS0040C	152 00	7	110 52	-66 28	0 60	0 60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	7
AUS	AUS00700	164 00	7	145 20	-36 10	2.12	1 02	147.00	R13TSS		41.09		MODRES	CR		58 49	27M0F8W		77	P	
AUS	AUS0070A	164 00	7	158 94	-54.50	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		77	P	7
BEN	BEN23300	-19 00	7	2 20	9 50	1 44	0.68	97.00	R13TSS		44.54		MODRES	CL		58.34	27M0F8W			P	
CHN	CHN15700	62 00	7	102 30	27.80	2 56	1.58	127.00	R13TSS		38.38		MODRES	CL		60.08	27M0F8W			P	
CHN	CHN16000	92 00	7	122 80	45 30	2 50	1.45	150.00	R13TSS		38.85		MODRES	CL		60.05	27M0F8W			P	
COM	COM20700	29 00	7	44 10	-12.10	0 76	0 60	149 00	R13TSS		47.86		MODRES	CL		58.06	27M0F8W			P	
E	HISPASA2	-30.00	7	-8 80	35.40	3 00	1 90	45.00	R13TSS		36.90		MODRES	CL		59.00	27M0F8W	HISPASAT-2		A	5, 7
F	F2_A2733	-7.00	7	2 60	45 90	2 50	0 98	160.00	R13TSS		41.60		MODRES	CR		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2773	-7 00	7	2 60	45.90	2 50	0.98	160 00	R13TSS		41.60		MODRES	CR		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2773	-7.00	7	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41 60		MODRES	LE	68.00	56 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3373	-7 00	7	2 60	45 90	2.50	0.98	160.00	RAD_TSS		41 60		MODRES	LE	68.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2773	-7 00	7	2 60	45.90	2 50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3373	-7.00	7	2 60	45 90	2 50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	58 00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29.00	7	1 90	49 00	1 82	1 82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	7	12 70	44.50	1.82	1.82	0.00	R13TSS		40 40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	7	8 90	61.30	3.06	0 71	9.00	R13TSS		41 50		R13RES	CR		60 50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	7	17 50	40.40	2 54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	7	-12 50	35 50	3 75	1.27	25.00	R13TSS		38 30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	7	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29.00	7	8 00	49.70	2 84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FSM	FSM00000	146.00	7	151 67	5 42	5 34	1.51	166 52	R13TSS		35 37		MODRES	CL		58.67	27M0F8W			P	5, 7
GAB	GAB26000	-13 00	7	11 80	-0.60	1 43	1 12	64.00	R13TSS		42.40		MODRES	CR		58.40	27M0F8W			P	
GMB	GMB30200	-37 00	7	-15.10	13 40	0 79	0.60	4 00	R13TSS		47.69		MODRES	CL		58 39	27M0F8W			P	
GRC	GRC10500	5 00	7	24 70	38.20	1 78	0 98	156.00	R13TSS		42 03		MODRES	CR		58.43	27M0F8W			P	
IND	IND04301	56.00	7	77 80	11.10	1.36	1 28	172.00	R13TSS		42 04		MODRES	CR		58.44	27M0F8W			P	
IND	IND04700	68 00	7	93 30	11 10	1.92	0 60	96.00	R13TSS		43 83		MODRES	CR		58.53	27M0F8W			P	
INS	INS03600	104 00	7	135 20	-3 80	2.46	2 00	147 00	R13TSS		37.53		MODRES	CR		58.83	27M0F8W			P	
IRN	IRN10900	34 00	7	54 20	32 40	3 82	1 82	149.00	R13TSS		36 03		MODRES	CL		57 83	27M0F8W		72	P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
IRN	IRN10901	34 00	7	54 20	32 40	3 82	1 82	149 00	R13TSS		36 03		MODRES	CL		57 83	27M0F8W		72	P	
J	000BS-3N	109 85	7	134 50	31 50	3 52	3 30	68 00	R13TSS		33 80		R13RES	CR		64 20	27M0F8W	BS-3N	33	AE	
J	J 11100	110 00	7	134 50	31 50	3 52	3 30	68 00	R13TSS		33 80		R13RES	CR		64 20	27M0F8W		33	PE	
KIR	KIR00001	176 00	7	177 16	-0 79	4 47	1 27	163.00	R13TSS		36 91		MODRES	CL		58.91	27M0F8W			P	5, 7
LBN	LBN27900	11 00	7	35 80	33 90	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		56 66	27M0F8W			P	
LBR	LBR24400	-33 50	7	-9 30	6 60	1 22	0 70	133 00	R13TSS		45 13		MODRES	CR		58 33	27M0F8W			P	7
LBY	LBY32100	-25 00	7	13 10	27 20	2 36	1.12	129 00	R13TSS		40 23		MODRES	CL		58.13	27M0F8W			P	
LIE	LIE25300	-37 00	7	9 50	47.10	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		57.48	27M0F8W			P	
LTU	LTU06100	23 00	7	23.79	55 66	0 70	0 60	178.00	R13TSS		48 21		MODRES	CL		58.91	27M0F8W			P	7
LUX	LUX11400	-19 00	7	6 00	49 80	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		57.98	27M0F8W			P	
NRU	NRU30900	134 00	7	167 00	-0 50	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		57.58	27M0F8W			P	
ROU	ROU13600	-1 00	7	25 00	45 70	1.38	0 66	155 00	R13TSS		44 85		MODRES	CL		58 85	27M0F8W			P	5, 7
SMO	SMO05700	158 00	7	-172 30	-13 70	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 68	27M0F8W			P	
SNG	SNG15100	74 00	7	103 80	1 30	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		58 58	27M0F8W			P	
SOM	SOM31200	23 00	7	45 00	6 40	3.26	1 54	71 00	R13TSS		37 44		MODRES	CR		57.44	27M0F8W			P	
SVK	SVK14400	17 00	7	19 65	48 69	0 82	0 60	5 20	R13TSS		47.53		MODRES	CR		58 93	27M0F8W			P	
UGA	UGA05100	11 00	7	32 30	1 20	1 46	1 12	60 00	R13TSS		42.31		MODRES	CR		58 31	27M0F8W			P	
UKR	UKR06300	38 00	7	31 74	48 22	2 29	0 96	177.78	R13TSS		41 01		MODRES	CL		58.91	27M0F8W			P	5, 7
USA	MRA33200	122 00	7	145 90	16 90	1 20	0 60	76 00	R13TSS		45 87		MODRES	CR		58 47	27M0F8W		14	P	
USA	MRA33201	122 00	7	145 90	16 90	1 20	0 60	76 00	R13TSS		45 87		MODRES	CR		58 47	27M0F8W		14	P	
UZB	UZB07100	44 00	7	64 01	41 21	2 67	0 96	163 32	R13TSS		40 37		MODRES	CL		58 87	27M0F8W			P	5, 7
VTN	VTN32500	86 00	7	108 00	14 80	3 80	1 90	126 00	R123FR		35 86		MODRES	CL		58.36	27M0F8W			P	7
VUT	VUT12800	140 00	7	168 00	-16 40	1 52	0 68	87 00	R13TSS		44 30		MODRES	CL		57.90	27M0F8W			P	
ZMB	ZMB31400	-1 00	7	27 50	-13 10	2 38	1 48	39 00	R13TSS		38 98		MODRES	CR		58.78	27M0F8W			P	
ALG	ALG25200	-25 00	8	1 60	25 50	3 64	2 16	152 00	R13TSS		35 49		MODRES	CR		57 79	27M0F8W			P	
AND	AND34100	-37 00	8	1 60	42 50	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		56.48	27M0F8W			P	
ARS	ARS00300	17 00	8	41 10	23 80	3 52	1.68	134 00	R13TSS		36.73		MODRES	CL		57.83	27M0F8W		70	P	
AUS	AUS00500	152 00	8	133 90	-18 40	2.82	1 74	105 00	R13TSS		37 53		MODRES	CL		59 43	27M0F8W			P	
AUT	AUT01600	-19 00	8	12 20	47.50	1.14	0 83	166 00	R13TSS		45 88		MODRES	CL		59.18	27M0F8W			P	
AZE	AZE06400	23 00	8	47 47	40 14	0 93	0 60	158 14	R13TSS		46.98		MODRES	CR		58 88	27M0F8W			P	5, 7
BUL	BUL02000	-1 00	8	25 00	43 00	1 04	0 60	165 00	R13TSS		46.50		MODRES	CR		58.70	27M0F8W			P	
CHN	CHN15600	62 00	8	97 80	36 30	2 56	1.58	157.00	R13TSS		38 38		MODRES	CR		58 48	27M0F8W			P	
CHN	CHN17300	92 00	8	115 70	27 40	1.14	0.94	99 00	R13TSS		44.15		MODRES	CR		59.05	27M0F8W			P	
EGY	EGY02600	-7.00	8	29 70	26 80	2 33	1 72	136 00	R13TSS		38.42		MODRES	CL		58.22	27M0F8W			P	
F	F2_A2744	-7.00	8	3 40	45 60	2 00	0 95	155.00	R13TSS		42.70		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2784	-7 00	8	3 40	45.60	2 00	0 95	155 00	R13TSS		42.70		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2784	-7 00	8	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3384	-7 00	8	3 40	45 60	2.00	0.95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2784	-7.00	8	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3384	-7 00	8	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F	OCE10100	-160 00	8	-145 00	-16 30	4.34	3.54	4.00	R13TSS		32.58		MODRES	CL		58.58	27M0F8W			P	
F /EUT	E2WA7DA2	29 00	8	1 90	49 00	1 82	1 82	0 00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29.00	8	12.70	44.50	1.82	1 82	0.00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	8	8 90	61.30	3 06	0.71	9 00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29.00	8	17 50	40 40	2 54	1 07	168 00	R13TSS		40.70		R13RES	CL		53 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	8	-12 50	35 50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
F /EUT	E2WA7DF2	29 00	8	35 40	38 70	2 25	0 93	174 00	R13TSS		41 70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	8	8 00	49 70	2 84	1 45	26 00	R13TSS		39 30		R13RES	CL		51 30	27M0F9W	EUROPESAT-1	16	AE	8
G	G 02700	-33 50	8	-3 50	53 80	1 84	0.72	142.00	R13TSS		43.23		MODRES	CR		60.13	27M0F8W			P	7
IND	IND04000	56 00	8	73 00	25 00	1 82	1 48	58 00	R13TSS		40.14		MODRES	CL		58 74	27M0F8W			P	
IND	IND04801	68 00	8	86 20	25 00	1 56	0 90	120 00	R13TSS		42 97		MODRES	CL		58 67	27M0F8W			P	
INS	INS02800	80 20	8	101 50	0 00	3 00	1 20	133.00	R13TSS		38.88		MODRES	CL		58.38	27M0F8W			P	
KOR	KO11201D	116 00	8	127 50	36 00	1 24	1 02	168 00	R13TSS		43.40		R13RES	CL		63.70	27M0G7W	KOREASAT-1	20	AE	
KOR	KOR11200	110 00	8	127 50	36.00	1 24	1 02	168 00	R13TSS		43 43		MODRES	CL		58.73	27M0F8W		20	P	
KOR	KOR11201	116 00	8	127 50	36 00	1 24	1.02	168.00	R13TSS		43.40		R13RES	CL		63.70	27M0F8W	KOREASAT-1	20	AE	
LAO	LAO28400	74 00	8	103 70	18 10	2 16	0.78	133 00	R13TSS		42.18		MODRES	CR		58.78	27M0F8W			P	
MAU	MAU24300	29 00	8	56 80	-13 90	1 56	1 38	65.00	R13TSS		41.12		MODRES	CR		58.82	27M0F8W			P	
MDA	MDA06300	38 00	8	28 41	46 99	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W			P	5, 7
MLA	MLA22800	86 00	8	114 10	3 90	2 34	1.12	45 00	R13TSS		40.28		MODRES	CR		58 66	27M0F8W			P	
MLD	MLD3060A	44 00	8	73 10	6 00	0 96	0 60	90.00	R13TSS		46.84		MODRES	CR		58.74	27M0F8W			P	7
MLI	MLI32800	-37 00	8	-7 60	13 20	1.74	1 24	171.00	R13TSS		41.11		MODRES	CR		58.81	27M0F8W			P	
MLT	MLT14700	-13 00	8	14 30	35 90	0 60	0.60	0 00	R13TSS		48.88		MODRES	CR		55.98	27M0F8W			P	
MOZ	MOZ30700	-1 00	8	34 00	-18 00	3 57	1 38	55 00	R13TSS		37.52		MODRES	CL		59 22	27M0F8W			P	
NZL	CKH05300	158 00	8	-163 00	-11 20	1 76	0.72	30 00	R13TSS		43 42		MODRES	CL		59.32	27M0F8W		4	P	
NZL	CKH05301	158 00	8	-163 00	-11 20	1 76	0.72	30 00	R13TSS		43.42		MODRES	CL		59.32	27M0F8W		4	P	
PAK	PAK28300	38 00	8	74 70	33 90	1 34	1.13	160 00	R13TSS		42 65		MODRES	CR		59 35	27M0F8W		75	P	
PAK	PAK28301	38 00	8	74 70	33 90	1 34	1 13	160.00	R13TSS		42 65		MODRES	CR		59.35	27M0F8W		75	P	
PLW	PLW00000	146 00	8	132 99	5.52	1 29	0 60	55 84	R13TSS		45.55		MODRES	CR		58.85	27M0F8W			P	7
PNG	PNG27100	128 00	8	148 00	-6 70	2 80	2.05	155 00	R13TSS		36.86		MODRES	CR		58.36	27M0F8W			P	
RRW	RRW31000	11 00	8	30 00	-2.10	0 66	0.60	42.00	R13TSS		48.47		MODRES	CL		59.87	27M0F8W			P	
S	S 13800	5.00	8	16 20	61 00	1 04	0 98	14.00	R13TSS		44 36		MODRES	CL		62.06	27M0F8W		27	P	
S	SIRIUS01	5 20	8	14 00	63 00	1 30	0.70	142 00	R13TSS		42.50		R13RES	CR		59.50	27M0F8W	SIRIUS	27	AE	
STP	STP24100	-13 00	8	7 00	0 80	0 60	0 60	0.00	R13TSS		48.88		MODRES	CL		56.48	27M0F8W			P	
SVN	SVN14800	34 00	8	15 01	46.18	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			P	5, 7
TON	TON21500	170 00	8	-174 70	-18 00	1 41	0 68	85.00	R13TSS		44.63		MODRES	CR		58 33	27M0F8W			P	
ZAI	ZAI32200	-19 00	8	22 40	0 00	2 16	1.88	48 00	R13TSS		38.38		MODRES	CR		59.76	27M0F8W			P	
AFG	AFG24600	50 00	9	64 50	33 10	1 44	1.40	21.00	R13TSS		41.40		MODRES	CR		58 40	27M0F8W			P	
AUS	AUS00900	164.00	9	147.50	-32 10	2 31	1 43	187.00	R13TSS		39 25		MODRES	CR		59.25	27M0F8W		78	P	
AUS	AUS0090A	164.00	9	159 06	-31 52	0 60	0 60	0.00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W		78	P	7
AUS	AUS0090B	164 00	9	167 93	-29 02	0 60	0 60	0.00	R13TSS		48.88		MODRES	CR		58 88	27M0F8W		78	P	7
BLR	BLR06200	38 00	9	27.91	53 06	1 21	0.60	11.47	R13TSS		45.83		MODRES	CL		58.93	27M0F8W			P	5, 7
BTN	BTN03100	86 00	9	90 44	27 05	0 72	0.60	175.47	R13TSS		48.11		MODRES	CR		58 91	27M0F8W			P	5, 7
CHN	CHN15500	62 00	9	88 30	31.50	3.38	1 45	162 00	R13TSS		37.54		MODRES	CL		58 04	27M0F8W			P	
CHN	CHN16200	92 00	9	115 90	21 00	2.74	2 42	23 00	R13TSS		36 23		MODRES	CL		59 03	27M0F8W			P	
CHN	CHN16500	79 80	9	111 40	41 80	1.58	1.20	15.00	R13TSS		41 67		MODRES	CR		58 57	27M0F8W			P	
CHN	CHN19000	122 00	9	114 17	23.32	0 91	0 60	2.88	R13TSS		47 08		MODRES	CR		58 88	27M0F8W			P	5
CME	CME30000	-13 00	9	12 70	6.20	2 54	1 68	87.00	R13TSS		38 15		MODRES	CR		58 55	27M0F8W			P	
E	HISPASA2	-30 00	9	-8 80	35 40	3 00	1.90	45 00	R13TSS		36 90		MODRES	CL		59 00	27M0F8W	HISPASAT-2		A	5, 7
EST	EST06100	23 00	9	25 01	58.47	0 72	0 60	9 93	R13TSS		48 09		MODRES	CL		58 89	27M0F8W			P	5, 7
F	F 09300	-19 00	9	2 60	45.90	2 50	0 98	160 00	R13TSS		40 56		R13RES	CR		63 86	27M0F8W		19	PE	
F	F 09306	-7 00	9	2 60	45 90	2 50	0 98	160 00	R13TSS		41 00		MODRES	CR		58 90	27M0F8W	RADIOSAT	19	A	
F	F3_A2751	-7 00	9	2 60	45 90	2 50	0.98	160 00	RAD_TSS		41 60		MODRES	LE	68 00	58 00	27M0F9W	RADIOSAT-3	19	A	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm	Beam	Orbital	Chan	Boresight		Space Antenna Character			Space	Shap	Space Ant. Gain		Earth	Polarization		EIRP	Designation	Satellite	Group	Status	Re-
Symb	Identification	Position°	nel	Long °	Lat °	Major°	Minor°	Orient.°	Antenna	Beam	Co-pol.	X-pol	Antenna	Typ.	Angle°	dBW	of Emission	Identification	Code		marks
F	F3_A3351	-7.00	9	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2751	-7.00	9	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3351	-7.00	9	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29.00	9	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	9	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	9	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29.00	9	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	9	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	9	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29.00	9	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FJI	FJI19300	152.00	9	179.40	-17.90	1.04	0.98	67.00	R13TSS		44.36		MODRES	CR		58.76	27M0F8W			P	
GUI	GUI19200	-37.00	9	-11.00	10.20	1.58	1.04	147.00	R13TSS		42.29		MODRES	CL		58.49	27M0F8W			P	
HRV	HRV14800	34.00	9	16.74	44.54	0.88	0.69	5.30	R13TSS		46.57		MODRES	CL		58.87	27M0F8W			P	5, 7
IND	IND03900	56.00	9	72.70	11.20	1.26	0.60	107.00	R13TSS		45.66		MODRES	CR		58.16	27M0F8W			P	
IND	IND04401	68.00	9	79.50	22.30	2.19	1.42	146.00	R13TSS		39.52		MODRES	CR		58.52	27M0F8W			P	
INS	INS03500	104.00	9	124.30	-3.20	3.34	1.94	82.00	R13TSS		36.33		MODRES	CR		58.33	27M0F8W			P	
J	000BS-3N	109.85	9	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		R13RES	CR		64.30	27M0F8W	BS-3N	33	AE	
J	J 11100	110.00	9	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		R13RES	CR		64.30	27M0F8W		33	PE	
LBY	LBY28000	-25.00	9	21.40	26.00	2.50	1.04	119.00	R13TSS		40.30		MODRES	CL		58.60	27M0F8W			P	
MDG	MDG23600	29.00	9	46.60	-18.80	2.72	1.14	65.00	R13TSS		39.53		MODRES	CL		58.43	27M0F8W			P	
NZL	NZL05500	158.00	9	172.30	-39.70	2.88	1.56	47.00	R13TSS		37.92		MODRES	CR		58.42	27M0F8W			P	
POL	POL13200	-1.00	9	19.30	51.80	1.46	0.64	162.00	R13TSS		44.74		MODRES	CL		59.24	27M0F8W			P	
QAT	QAT24700	17.00	9	51.10	25.30	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	
SLM	SLM00000	146.00	9	159.32	-8.40	1.50	1.18	140.48	R13TSS		41.98		MODRES	CL		58.88	27M0F8W			P	5, 7
SMR	SMR31100	-37.00	9	12.60	43.70	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W			P	
SWZ	SWZ31300	-1.00	9	31.50	-26.50	0.62	0.60	68.00	R13TSS		48.74		MODRES	CR		57.94	27M0F8W			P	
THA	THA14200	74.00	9	100.70	13.20	2.82	1.54	106.00	R13TSS		38.07		MODRES	CL		58.67	27M0F8W			P	
TJK	TJK06900	44.00	9	71.14	38.37	1.25	0.76	159.15	R13TSS		44.65		MODRES	CL		58.85	27M0F8W			P	5, 7
TUR	TUR14500	5.00	9	34.40	38.90	2.68	1.04	168.00	R13TSS		40.00		MODRES	CR		58.80	27M0F8W			P	
USA	PLM33700	170.00	9	-161.40	7.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W		9	P	
USA	PLM33701	170.00	9	-161.40	7.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W		9	P	
USA	SMA33500	170.00	9	-170.10	-14.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.28	27M0F8W		13	P	
USA	SMA33501	170.00	9	-170.10	-14.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.28	27M0F8W		13	P	
USA	WAK33400	140.00	9	166.50	19.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.68	27M0F8W		11	P	
USA	WAK33401	140.00	9	166.50	19.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.68	27M0F8W		11	P	
YEM	YEM26700	11.00	9	48.61	14.42	1.68	1.44	157.35	R13TSS		40.61		MODRES	CL		58.91	27M0F8W			P	7
	YYY00001	11.00	9	34.99	31.86	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	3, 5, 7
ALG	ALG25100	-25.00	10	4.20	33.20	2.45	1.25	172.00	R13TSS		39.59		MODRES	CR		58.49	27M0F8W			P	
ARS	ARS27500	17.00	10	48.30	24.60	3.84	1.20	138.00	R13TSS		37.81		MODRES	CL		57.91	27M0F8W			P	
AUS	AUS00600	152.00	10	136.60	-30.90	2.41	1.52	161.00	R13TSS		38.60		MODRES	CL		58.40	27M0F8W			P	
AUS	AUS00800	164.00	10	145.90	-21.70	3.62	1.63	136.00	R13TSS		36.73		MODRES	CL		58.83	27M0F8W			P	
BIH	BIH14600	34.00	10	17.77	44.32	0.62	0.60	166.84	R13TSS		48.71		MODRES	CR		58.91	27M0F8W			P	5, 7
BOT	BOT29700	-1.00	10	23.30	-22.20	2.13	1.50	36.00	R13TSS		39.40		MODRES	CL		58.90	27M0F8W			P	
CHN	CHN15400	62.00	10	83.90	40.50	2.75	2.05	177.00	R13TSS		36.94		MODRES	CR		58.34	27M0F8W			P	
CHN	CHN17100	92.00	10	117.20	32.00	1.20	0.74	126.00	R13TSS		44.96		MODRES	CR		59.16	27M0F8W			P	
CHN	CHN18700	79.80	10	106.60	26.70	1.14	0.94	179.00	R13TSS		44.15		MODRES	CL		59.05	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm. Symb	Beam Identification	Orbital Position°	Chan nel	Boresight Long °	Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
CLN	CLN21900	50 00	10	80 60	7 70	1 18	0 60	106.00	R13TSS		45.95		MODRES	CR		58.75	27M0F8W			P	
D	D 08700	-19 00	10	9 60	49 90	1 62	0.72	147.00	R13TSS		43.78		MODRES	CL		60.58	27M0F8W			P	7
F	F2_A2722	-7 00	10	3 40	45 60	2 00	0 95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2722	-7 00	10	3 40	45 60	2.00	0 95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2762	-7 00	10	3 40	45 60	2 00	0.95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2722	-7 00	10	3 40	45 60	2 00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2762	-7 00	10	3 40	45 60	2 00	0 95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3322	-7 00	10	3 40	45 60	2 00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3362	-7.00	10	3 40	45.60	2.00	0 95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2722	-7.00	10	3 40	45.60	2 00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2762	-7 00	10	3 40	45 60	2 00	0.95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	56 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3322	-7.00	10	3 40	45 60	2 00	0.95	155 00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3362	-7.00	10	3 40	45 60	2 00	0 95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F	NCL10000	140.00	10	166 00	-21.00	1.14	0.72	146.00	R13TSS		45.30		MODRES	CR		58.80	27M0F8W		6	P	
F	NCL10001	140 00	10	166 00	-21.00	1.14	0.72	146 00	R13TSS		45.30		MODRES	CR		58.80	27M0F8W		6	P	
F	WAL10200	140 00	10	-176.80	-14 00	0 74	0.60	29.00	R13TSS		47.97		MODRES	CR		59.47	27M0F8W		6	P	
F	WAL10201	140 00	10	-176 80	-14 00	0.74	0 60	29.00	R13TSS		47.97		MODRES	CR		59.47	27M0F8W		6	P	
F /EUT	E2WA7DA2	29 00	10	1 90	49 00	1.82	1.82	0 00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	10	12 70	44 50	1 82	1 82	0.00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	10	8 90	61 30	3 06	0.71	9.00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29.00	10	17.50	40 40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	10	-12 50	35 50	3 75	1.27	25.00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29 00	10	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	10	8 00	49 70	2.84	1 45	26.00	R13TSS		39.30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FIN	FIN10300	5 00	10	22.50	64.50	1.38	0.76	171.00	R13TSS		44.24		MODRES	CL		62.94	27M0F8W			P	
GNB	GNB30400	-30.00	10	-15.00	12.00	0.90	0.60	172.00	R13TSS		47.12		MODRES	CL		58.22	27M0F8W			P	7
IND	IND03700	68 00	10	93.00	25.50	1.46	1.13	40.00	R13TSS		42.27		MODRES	CL		58.97	27M0F8W			P	
IND	IND04501	56.00	10	76.20	19 50	1.58	1.58	21.00	R13TSS		40.47		MODRES	CL		58.57	27M0F8W			P	
IRL	IRL21100	-33 50	10	-8 20	53.20	0 64	0.60	162.00	R13TSS		47.42		MODRES	CR		59 42	27M0F8W			P	7
KOR	KO11201D	116.00	10	127.50	36 00	1.24	1.02	168.00	R13TSS		43.40		R13RES	CL		63.70	27M0G7W	KOREASAT-1	20	AE	
KOR	KOR11200	110.00	10	127.50	36 00	1.24	1.02	168.00	R13TSS		43.43		MODRES	CL		58.73	27M0F8W		20	P	
KOR	KOR11201	116 00	10	127.50	36.00	1 24	1.02	168.00	R13TSS		43.40		R13RES	CL		63.70	27M0F8W	KOREASAT-1	20	AE	
LAO	LAO28400	74 00	10	103.70	18.10	2.16	0.78	133.00	R13TSS		42.18		MODRES	CR		58.88	27M0F8W			P	
MAU	MAU24200	29.00	10	59.80	-18 90	1.62	1.24	55.00	R13TSS		41.42		MODRES	CR		59.12	27M0F8W			P	
MHL	MHL00000	146.00	10	167.84	9 83	2.07	0.90	157.42	R13TSS		41.75		MODRES	CR		58.95	27M0F8W			P	7
MKD	MKD14800	23.00	10	21.61	41.56	0.60	0.60	90.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	5, 7
MLA	MLA2280A	86.00	10	114 10	3 90	2.34	1.12	45.00	R13TSS		40.26		MODRES	CR		58.66	27M0F8W			P	5, 7
MLI	MLI32700	-37.00	10	-2 00	19.00	2.66	1.26	127.00	R13TSS		39.19		MODRES	CR		58.19	27M0F8W			P	
NOR	BIFROS22	-0 80	10	17.00	61.50					NO9	32.00	6.00	MODRES	CR		54 50	27M0FXF	BIFROST-2		A	
NZL	CKH05200	158 00	10	-161.00	-19.80	1.02	0.64	132.00	R13TSS		46.30		MODRES	CL		59.70	27M0F8W		3	P	
NZL	CKH05201	158.00	10	-161 00	-19.80	1 02	0.64	132.00	R13TSS		46.30		MODRES	CL		59.70	27M0F8W		3	P	
PAK	PAK12700	38 00	10	69 60	29.50	2 30	2.16	14.00	R13TSS		37.49		MODRES	CR		58.99	27M0F8W		73	P	
PNG	PNG13100	110 00	10	147.70	-6 30	2.50	2.18	169.00	R13TSS		37.08		MODRES	CR		59 48	27M0F8W			P	
TCD	TCD14300	-13.00	10	18.10	15 50	3 40	1.72	107.00	R13TSS		36.78		MODRES	CL		59.08	27M0F8W			P	
TGO	TGO22600	-25.00	10	0.80	8 60	1 52	0 60	105.00	R13TSS		44.65		MODRES	CL		58.55	27M0F8W			P	
TUV	TUV00000	176.00	10	177 61	-7.11	0 94	0 60	137 58	R13TSS		46.93		MODRES	CR		58.93	27M0F8W			P	7

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long.°	Boresight Lat.°	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap. Beam	Space Ant. Gain Co-pol	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
USA	GUM33100	122.00	10	144.50	13.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		58.38	27M0F8W		15	P	
USA	GUM33101	122.00	10	144.50	13.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		58.38	27M0F8W		15	P	
YEM	YEM26600	11.00	10	44.00	15.67	0.80	0.60	114.88	R13TSS		47.66		MODRES	CR		58.88	27M0F8W			P	7
ZAI	ZAI32300	-19.00	10	21.30	-8.80	2.80	1.52	149.00	R13TSS		38.16		MODRES	CR		59.66	27M0F8W			P	
AFG	AFG24500	50.00	11	70.20	35.50	1.32	1.13	53.00	R13TSS		42.71		MODRES	CR		57.91	27M0F8W			P	
AUS	AUS00400	152.00	11	123.00	-24.20	3.06	2.17	102.00	R13TSS		36.22		MODRES	CR		58.22	27M0F8W		76	P	
AUS	AUS0040A	152.00	11	96.83	-12.19	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	7
AUS	AUS0040B	152.00	11	105.69	-10.45	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	7
AUS	AUS0040C	152.00	11	110.52	-66.28	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	7
AUS	AUS00700	164.00	11	145.20	-38.10	2.12	1.02	147.00	R13TSS		41.09		MODRES	CR		58.49	27M0F8W		77	P	
AUS	AUS0070A	164.00	11	158.94	-54.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		77	P	7
BEN	BEN23300	-19.00	11	2.20	9.50	1.44	0.68	97.00	R13TSS		44.54		MODRES	CL		58.44	27M0F8W			P	
CHN	CHN15700	62.00	11	102.30	27.80	2.56	1.58	127.00	R13TSS		38.38		MODRES	CL		60.18	27M0F8W			P	
CHN	CHN16000	92.00	11	122.80	45.30	2.50	1.45	150.00	R13TSS		38.85		MODRES	CL		60.15	27M0F8W			P	
COM	COM20700	29.00	11	44.10	-12.10	0.76	0.60	149.00	R13TSS		47.86		MODRES	CL		58.16	27M0F8W			P	
E	HISPASA2	-30.00	11	-8.80	35.40	3.00	1.90	45.00	R13TSS		36.90		MODRES	CL		59.00	27M0F8W	HISPASAT-2		A	5, 7
F	F2_A2733	-7.00	11	2.60	45.90	2.50	0.98	160.00	R13TSS		41.60		MODRES	CR		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2773	-7.00	11	2.60	45.90	2.50	0.98	160.00	R13TSS		41.60		MODRES	CR		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2773	-7.00	11	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3373	-7.00	11	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2773	-7.00	11	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3373	-7.00	11	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29.00	11	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	11	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	11	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29.00	11	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	11	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	11	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29.00	11	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FSM	FSM00000	146.00	11	151.67	5.42	5.34	1.51	166.52	R13TSS		35.37		MODRES	CL		58.67	27M0F8W			P	5, 7
GAB	GAB26000	-13.00	11	11.80	-0.60	1.43	1.12	64.00	R13TSS		42.40		MODRES	CR		58.40	27M0F8W			P	
GMB	GMB30200	-37.00	11	-15.10	13.40	0.79	0.60	4.00	R13TSS		47.69		MODRES	CL		58.39	27M0F8W			P	
GRC	GRC10500	5.00	11	24.70	38.20	1.78	0.98	156.00	R13TSS		42.03		MODRES	CR		58.43	27M0F8W			P	
IND	IND04300	56.00	11	77.80	11.10	1.36	1.28	172.00	R13TSS		42.04		MODRES	CR		58.54	27M0F8W			P	
IND	IND04701	68.00	11	93.30	11.10	1.92	0.60	96.00	R13TSS		43.83		MODRES	CR		58.53	27M0F8W			P	
INS	INS03600	104.00	11	135.20	-3.80	2.46	2.00	147.00	R13TSS		37.53		MODRES	CR		58.93	27M0F8W			P	
IRN	IRN10900	34.00	11	54.20	32.40	3.82	1.82	149.00	R13TSS		36.03		MODRES	CL		57.93	27M0F8W		72	P	
IRN	IRN10901	34.00	11	54.20	32.40	3.82	1.82	149.00	R13TSS		36.03		MODRES	CL		57.93	27M0F8W		72	P	
J	000BS-3N	109.85	11	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		R13RES	CR		64.30	27M0F8W	BS-3N	33	AE	
J	J 11100	110.00	11	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		R13RES	CR		64.30	27M0F8W		33	PE	
KIR	KIR00001	176.00	11	177.16	-0.79	4.47	1.27	163.00	R13TSS		36.91		MODRES	CL		58.91	27M0F8W			P	5, 7
LBN	LBN27900	11.00	11	35.80	33.90	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		58.88	27M0F8W			P	
LBR	LBR24400	-33.50	11	-9.30	6.60	1.22	0.70	133.00	R13TSS		45.13		MODRES	CR		58.33	27M0F8W			P	7
LBY	LBY32100	-25.00	11	13.10	27.20	2.36	1.12	129.00	R13TSS		40.23		MODRES	CL		58.13	27M0F8W			P	
LIE	LIE25300	-37.00	11	9.50	47.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W			P	
LTU	LTU06100	23.00	11	23.79	55.66	0.70	0.60	176.00	R13TSS		48.21		MODRES	CL		58.91	27M0F8W			P	7

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
LUX	LUX11400	-19 00	11	6 00	49 80	0 60	0 60	0.00	R13TSS		48 88		MODRES	CR		57.98	27M0F8W			P	
NRU	NRU30900	134 00	11	167 00	-0 50	0 60	0 60	0.00	R13TSS		48 88		MODRES	CL		57.58	27M0F8W			P	
ROU	ROU13600	-1 00	11	25 00	45 70	1 38	0.66	155 00	R13TSS		44.85		MODRES	CL		58.85	27M0F8W			P	5, 7
SMO	SMO05700	158 00	11	-172 30	-13 70	0 60	0 60	0.00	R13TSS		48 88		MODRES	CR		58.78	27M0F8W			P	
SNG	SNG15100	74 00	11	103 80	1 30	0.60	0.60	0.00	R13TSS		48 88		MODRES	CL		58.68	27M0F8W			P	
SOM	SOM31200	23.00	11	45 00	6 40	3 26	1 54	71 00	R13TSS		37.44		MODRES	CR		57.44	27M0F8W			P	
SVK	SVK14400	17 00	11	19 65	48 69	0 82	0 80	5 20	R13TSS		47 53		MODRES	CR		58.93	27M0F8W			P	
UGA	UGA05100	11 00	11	32 30	1 20	1 46	1.12	60 00	R13TSS		42.31		MODRES	CR		58.31	27M0F8W			P	
UKR	UKR06300	36 00	11	31 74	48 22	2 29	0 96	177.78	R13TSS		41.01		MODRES	CL		58.91	27M0F8W			P	5, 7
USA	MRA33200	122 00	11	145 90	16 90	1 20	0.60	76 00	R13TSS		45.87		MODRES	CR		58 57	27M0F8W		14	P	
USA	MRA33201	122 00	11	145 90	16 90	1 20	0 60	76.00	R13TSS		45 87		MODRES	CR		58 57	27M0F8W		14	P	
UZB	UZB07100	44 00	11	64 01	41 21	2 67	0 96	163.32	R13TSS		40.37		MODRES	CL		58 87	27M0F8W			P	5, 7
VTN	VTN32500	86 00	11	108 00	14 80	3 80	1 90	126.00	R123FR		35 86		MODRES	CL		58 36	27M0F8W			P	7
VUT	VUT12800	140 00	11	168 00	-16 40	1.52	0 68	87.00	R13TSS		44 30		MODRES	CL		58.00	27M0F8W			P	
ZMB	ZMB31400	-1 00	11	27 50	-13 10	2 38	1 48	39.00	R13TSS		38.98		MODRES	CR		58.78	27M0F8W			P	
ALG	ALG25200	-25 00	12	1 60	25 50	3 64	2.16	152 00	R13TSS		35 49		MODRES	CR		57.89	27M0F8W			P	
AND	AND34100	-37 00	12	1 60	42 50	0 60	0 60	0.00	R13TSS		48 88		MODRES	CL		56.58	27M0F8W			P	
ARS	ARS00300	17 00	12	41 10	23 80	3 52	1 68	134.00	R13TSS		36.73		MODRES	CL		57.83	27M0F8W		70	P	
AUS	AUS00500	152 00	12	133 90	-18 40	2 82	1.74	105 00	R13TSS		37.53		MODRES	CL		59.43	27M0F8W			P	
AUT	AUT01600	-19 00	12	12 20	47 50	1 14	0 63	166 00	R13TSS		45.88		MODRES	CL		59.18	27M0F8W			P	
AZE	AZE06400	23 00	12	47 47	40 14	0 93	0 60	158.14	R13TSS		46.98		MODRES	CR		58.88	27M0F8W			P	5, 7
BRU	BRU3300A	74 00	12	114 70	4 40	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W			P	5, 7
BUL	BUL02000	-1 00	12	25 00	43 00	1 04	0 60	165 00	R13TSS		46 50		MODRES	CR		58.80	27M0F8W			P	
CHN	CHN15600	62 00	12	97 80	36 30	2 56	1 58	157 00	R13TSS		38 38		MODRES	CR		58.58	27M0F8W			P	
CHN	CHN17000	92 00	12	119 50	33 00	1 34	0 64	155 00	R13TSS		45.11		MODRES	CR		59.41	27M0F8W			P	
CHN	CHN17800	79 80	12	111 50	27.40	1.22	0 86	130.00	R13TSS		44.24		MODRES	CL		59.44	27M0F8W			P	
DNK	DNK08900	5 00	12	12 30	57.10	1.20	0 60	177 00	R13TSS		45.87		MODRES	CL		59.27	27M0F8W		28	P	
EGY	EGY02600	-7 00	12	29 70	26 80	2 33	1.72	136.00	R13TSS		38.42		MODRES	CL		58.22	27M0F8W			P	
F	F2_A2744	-7.00	12	3 40	45 60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2784	-7 00	12	3 40	45.60	2.00	0 95	155 00	R13TSS		42 70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2784	-7.00	12	3 40	45 60	2.00	0.95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3384	-7.00	12	3 40	45 60	2 00	0.95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	56 00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2784	-7 00	12	3 40	45.60	2 00	0 95	155.00	RAD_TSS		42.70		MODRES	LE	158 00	56 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3384	-7.00	12	3 40	45.60	2 00	0 95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F	OCE10100	-160.00	12	-145 00	-16 30	4.34	3.54	4 00	R13TSS		32.58		MODRES	CL		58.58	27M0F8W			P	
F /EUT	E2WA7DA2	29 00	12	1 90	49.00	1 82	1.82	0 00	R13TSS		40 40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	12	12.70	44.50	1 82	1.82	0 00	R13TSS		40 40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29.00	12	8 90	61.30	3 06	0 71	9 00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29 00	12	17 50	40.40	2.54	1 07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	12	-12 50	35 50	3.75	1.27	25.00	R13TSS		38 30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29.00	12	35 40	38.70	2 25	0.93	174.00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29.00	12	8 00	49 70	2 84	1 45	26.00	R13TSS		39 30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
G	G 02700	-33 50	12	-3 50	53 80	1.84	0 72	142 00	R13TSS		43.23		MODRES	CR		60.13	27M0F8W			P	7
IND	IND04001	56.00	12	73 00	25 00	1 82	1.48	58.00	R13TSS		40.14		MODRES	CL		58.84	27M0F8W			P	
IND	IND04800	68.00	12	86 20	25 00	1 56	0.90	120.00	R13TSS		42.97		MODRES	CL		58 77	27M0F8W			P	
KOR	KO11201D	116 00	12	127 50	36 00	1 24	1 02	168 00	R13TSS		43 40		R13RES	CL		63.70	27M0G7W	KOREASAT-1	20	AE	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap. Beam	Space Ant. Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
KOR	KOR11200	110 00	12	127 50	36 00	1 24	1 02	168 00	R13TSS		43 43		MODRES	CL		58 73	27M0F8W		20	P	
KOR	KOR11201	116 00	12	127 50	36 00	1 24	1 02	168 00	R13TSS		43 40		R13RES	CL		63.70	27M0F8W	KOREASAT-1	20	AE	
MAU	MAU24300	29 00	12	56 80	-13 90	1 56	1 38	65 00	R13TSS		41 12		MODRES	CR		58 82	27M0F8W			P	
MDA	MDA06300	38 00	12	28 41	46 99	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W			P	5, 7
MLD	MLD30600	44 00	12	73 10	6 00	0 96	0 60	90 00	R13TSS		46 84		MODRES	CR		58.74	27M0F8W			P	
MLI	MLI32800	-37 00	12	-7 60	13 20	1 74	1 24	171 00	R13TSS		41 11		MODRES	CR		58.81	27M0F8W			P	
MLT	MLT14700	-13 00	12	14 30	35 90	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		56.08	27M0F8W			P	
MOZ	MOZ30700	-1 00	12	34 00	-18 00	3 57	1 38	55 00	R13TSS		37 52		MODRES	CL		59.32	27M0F8W			P	
NZL	CKH05300	158 00	12	-163 00	-11 20	1 76	0 72	30 00	R13TSS		43 42		MODRES	CL		59.42	27M0F8W		4	P	
NZL	CKH05301	158 00	12	-163 00	-11 20	1 76	0.72	30 00	R13TSS		43 42		MODRES	CL		59.42	27M0F8W		4	P	
PAK	PAK21000	38 00	12	72 10	30 80	1.16	0 72	90 00	R13TSS		45 23		MODRES	CR		58.53	27M0F8W		74	P	
PAK	PAK21001	38.00	12	72 10	30 80	1 16	0 72	90.00	R13TSS		45 23		MODRES	CR		58.53	27M0F8W		74	P	
PLW	PLW00000	146 00	12	132 99	5 52	1 29	0 60	55 84	R13TSS		45.55		MODRES	CR		58.85	27M0F8W			P	7
PNG	PNG27100	128 00	12	148 00	-6 70	2.80	2 05	155.00	R13TSS		36.88		MODRES	CR		58.46	27M0F8W			P	
RRW	RRW31000	11.00	12	30.00	-2 10	0 68	0 60	42 00	R13TSS		48.47		MODRES	CL		59.87	27M0F8W			P	
S	SIRIUS02	5 20	12	14 00	63 00	1 30	0 70	142 00	R13TSS		42 50		R13RES	CR		58.00	27M0F8W	SIRIUS	28	AE	
STP	STP24100	-13.00	12	7.00	0 80	0 60	0 60	0 00	R13TSS		48.88		MODRES	CL		56.48	27M0F8W			P	
SVN	SVN14800	34 00	12	15 01	46 18	0 60	0 60	90.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	5, 7
TON	TON21500	170 00	12	-174 70	-18 00	1 41	0 68	85 00	R13TSS		44 63		MODRES	CR		58.43	27M0F8W			P	
ZAI	ZAI32200	-19 00	12	22 40	0 00	2 16	1 88	48 00	R13TSS		38 36		MODRES	CR		59.76	27M0F8W			P	
AFG	AFG24600	50 00	13	64 50	33 10	1 44	1 40	21.00	R13TSS		41.40		MODRES	CR		58.40	27M0F8W			P	
AUS	AUS00900	164 00	13	147.50	-32 10	2.31	1 43	187 00	R13TSS		39.25		MODRES	CR		59.25	27M0F8W		78	P	
AUS	AUS0090A	164.00	13	159 06	-31 52	0 60	0 60	0.00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W		78	P	7
AUS	AUS0090B	164.00	13	167 93	-29 02	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		78	P	7
BLR	BLR06200	38.00	13	27.91	53.06	1.21	0.60	11 47	R13TSS		45.83		MODRES	CL		58.93	27M0F8W			P	5
BTN	BTN03100	86.00	13	90 44	27.05	0.72	0 60	175.47	R13TSS		48 11		MODRES	CR		58.91	27M0F8W			P	5
CHN	CHN15501	62.00	13	88 30	31 50	3 38	1 45	162 00	R13TSS		37.54		MODRES	CL		58.04	27M0F8W			P	
CHN	CHN18000	92.00	13	113.70	12 90	3.76	2.18	72.00	R13TSS		35.31		MODRES	CL		58.61	27M0F8W			P	
CHN	CHN19000	122 00	13	114 17	23.32	0.91	0 60	2 88	R13TSS		47.08		MODRES	CR		58 88	27M0F8W			P	5
CME	CME30000	-13.00	13	12 70	6 20	2.54	1 68	87 00	R13TSS		38.15		MODRES	CR		58.65	27M0F8W			P	
E	HISPASA2	-30 00	13	-8 80	35.40	3 00	1 90	45 00	R13TSS		36.90		MODRES	CL		59.00	27M0F8W	HISPASAT-2		A	5, 7
EST	EST06100	23.00	13	25.01	58.47	0.72	0.60	9.93	R13TSS		48.09		MODRES	CL		58.89	27M0F8W			P	5
F	F 09300	-19 00	13	2 60	45 90	2.50	0.98	160.00	R13TSS		40 56		R13RES	CR		63.96	27M0F8W		19	PE	
F	F 09306	-7.00	13	2 60	45 90	2.50	0.98	160.00	R13TSS		41 00		MODRES	CR		58.90	27M0F8W	RADIOSAT	19	A	
F	F3_A2751	-7.00	13	2 60	45.90	2.50	0.98	160 00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3351	-7.00	13	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2751	-7.00	13	2 60	45.90	2.50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3351	-7.00	13	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29.00	13	1.90	49.00	1 82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	13	12.70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	13	8 90	61 30	3 06	0 71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29.00	13	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	13	-12.50	35 50	3.75	1.27	25 00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	13	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	13	8.00	49.70	2 84	1.45	26.00	R13TSS		39.30		R13RES	CR		51 30	27M0F9W	EUROPESAT-1	16	AE	8
FJI	FJI1930A	152 00	13	179 40	-17.90	1 04	0 98	67.00	R13TSS		44.36		MODRES	CR		58.76	27M0F8W			P	5, 7

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm. Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
GUI	GUI19200	-37 00	13	-11 00	10 20	1 58	1.04	147.00	R13TSS		42.29		MODRES	CL		58.59	27M0F8W			P	
HRV	HRV14800	34 00	13	16 74	44 54	0 88	0.69	5.30	R13TSS		46.57		MODRES	CL		58.87	27M0F8W			P	5
IND	IND03901	56 00	13	72 70	11 20	1 26	0 80	107.00	R13TSS		45.66		MODRES	CR		58.26	27M0F8W			P	
IND	IND04400	68 00	13	79 50	22 30	2 19	1.42	146.00	R13TSS		39.52		MODRES	CR		58.52	27M0F8W			P	
INS	INS03500	104 00	13	124 30	-3 20	3 34	1.94	82.00	R13TSS		36.33		MODRES	CR		58.43	27M0F8W			P	
J	000BS-3N	109 85	13	134 50	31 50	3 52	3.30	68.00	R13TSS		33.80		R13RES	CR		64.30	27M0F8W	BS-3N	33	AE	
J	J 11100	110 00	13	134 50	31 50	3 52	3.30	68 00	R13TSS		33.80		R13RES	CR		64.30	27M0F8W		33	PE	
LBY	LBY28000	-25 00	13	21 40	26 00	2 50	1 04	119.00	R13TSS		40.30		MODRES	CL		56.60	27M0F8W			P	
MDG	MDG23600	29 00	13	46 60	-18 80	2 72	1.14	65.00	R13TSS		39.53		MODRES	CL		58.53	27M0F8W			P	
NZL	NZL05500	158 00	13	172 30	-39 70	2 86	1.56	47.00	R13TSS		37.92		MODRES	CR		58.52	27M0F8W			P	
NZL	NZL28700	128 00	13	173 00	-41 00	3 30	1.28	48 00	R13TSS		38.19		MODRES	CR		59.79	27M0F8W			P	
POL	POL13200	-1 00	13	19 30	51 80	1 46	0.64	162.00	R13TSS		44.74		MODRES	CL		59.34	27M0F8W			P	
QAT	QAT24700	17 00	13	51 10	25 30	0 60	0 60	0.00	R13TSS		48.88		MODRES	CR		56.98	27M0F8W			P	
SLM	SLM00000	146 00	13	159 32	-8 40	1 50	1.18	140 48	R13TSS		41.98		MODRES	CL		58.88	27M0F8W			P	5, 7
SMR	SMR31100	-37 00	13	12 60	43 70	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	
SWZ	SWZ31300	-1 00	13	31 50	-26 50	0 62	0.60	66.00	R13TSS		48.74		MODRES	CR		58.04	27M0F8W			P	
THA	THA14200	74 00	13	100 70	13 20	2 82	1.54	106.00	R13TSS		38.07		MODRES	CL		58.77	27M0F8W			P	
TJK	TJK06900	44 00	13	71 14	38 37	1.25	0.76	159 15	R13TSS		44.65		MODRES	CL		58.85	27M0F8W			P	5
TUR	TUR14500	5 00	13	34 40	38 90	2 68	1.04	168 00	R13TSS		40.00		MODRES	CR		58.90	27M0F8W			P	
USA	PLM33700	170 00	13	-161 40	7 00	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W		9	P	
USA	PLM33701	170 00	13	-161 40	7 00	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W		9	P	
USA	SMA33500	170 00	13	-170 10	-14 20	0 60	0 60	0.00	R13TSS		48.88		MODRES	CL		56.28	27M0F8W		13	P	
USA	SMA33501	170 00	13	-170 10	-14 20	0 60	0 60	0 00	R13TSS		48.88		MODRES	CL		56.28	27M0F8W		13	P	
USA	WAK33400	140.00	13	166 50	19 20	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		58.68	27M0F8W		11	P	
USA	WAK33401	140 00	13	166 50	19 20	0 60	0 60	0.00	R13TSS		48.88		MODRES	CR		58.68	27M0F8W		11	P	
YEM	YEM26700	11 00	13	48 61	14 42	1.68	1.44	157 35	R13TSS		40.61		MODRES	CL		58.91	27M0F8W			P	7
	YYY00001	11.00	13	34 99	31 86	0 60	0.60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	3, 5, 7
ALG	ALG25100	-25 00	14	4 20	33 20	2 45	1 25	172 00	R13TSS		39.59		MODRES	CR		58.59	27M0F8W			P	
ARS	ARS27500	17 00	14	48 30	24 60	3 84	1.20	138 00	R13TSS		37.81		MODRES	CL		58.01	27M0F8W			P	
AUS	AUS00600	152 00	14	136 60	-30 90	2 41	1.52	161.00	R13TSS		38.60		MODRES	CL		58.40	27M0F8W			P	
AUS	AUS00800	164 00	14	145 90	-21 70	3 62	1.63	136 00	R13TSS		36.73		MODRES	CL		58.83	27M0F8W			P	
BIH	BIH14800	34 00	14	17 77	44 32	0.62	0.60	166.84	R13TSS		48.71		MODRES	CR		58.91	27M0F8W			P	5
BOT	BOT29700	-1 00	14	23 30	-22 20	2 13	1.50	36 00	R13TSS		39.40		MODRES	CL		58.90	27M0F8W			P	
BRU	BRU3300A	74 00	14	114 70	4 40	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	5
CHN	CHN15401	62 00	14	83 90	40 50	2.75	2 05	177.00	R13TSS		36.94		MODRES	CR		58.44	27M0F8W			P	
CHN	CHN17200	92 00	14	120 40	29 10	0 96	0.84	123.00	R13TSS		45.38		MODRES	CR		59.28	27M0F8W			P	
CHN	CHN18100	79.80	14	108 50	23.80	1 41	1.08	153.00	R13TSS		42.62		MODRES	CL		59.12	27M0F8W			P	
CLN	CLN21900	50.00	14	80.60	7.70	1.18	0.60	106.00	R13TSS		45.95		MODRES	CR		58.85	27M0F8W			P	
D	D 08700	-19.00	14	9 60	49.90	1 62	0.72	147.00	R13TSS		43.78		MODRES	CL		60.68	27M0F8W			P	
F	F2_A2722	-7.00	14	3 40	45 60	2.00	0 95	155.00	R13TSS		42.70		MODRES	CL		57.70	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2722	-7.00	14	3 40	45 60	2.00	0 95	155.00	R13TSS		42.70		MODRES	CL		57.70	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2762	-7 00	14	3.40	45 60	2 00	0 95	155.00	R13TSS		42.70		MODRES	CL		57.70	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2722	-7.00	14	3 40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2762	-7.00	14	3 40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3322	-7.00	14	3 40	45.60	2 00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3362	-7 00	14	3 40	45 60	2 00	0 95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant Gain Co-pol	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
F	F3_D2722	-7 00	14	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	56 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2762	-7 00	14	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	56 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3322	-7 00	14	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	56 00	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3362	-7 00	14	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	56 00	33M0G9W	RADIOSAT-3	19	A	
F	NCL10000	140 00	14	166 00	-21 00	1 14	0 72	146 00	R13TSS		45 30		MODRES	CR		58 90	27M0F8W		6	P	
F	NCL10001	140 00	14	166 00	-21 00	1 14	0 72	146 00	R13TSS		45 30		MODRES	CR		58 90	27M0F8W		6	P	
F	WAL10200	140 00	14	-176 80	-14 00	0 74	0 60	29 00	R13TSS		47 97		MODRES	CR		59 57	27M0F8W		8	P	
F	WAL10201	140 00	14	-176 80	-14 00	0 74	0 60	29 00	R13TSS		47.97		MODRES	CR		59 57	27M0F8W		8	P	
F /EUT	E2WA7DA2	29 00	14	1 90	49 00	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	14	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		52 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	14	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29 00	14	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29 00	14	-12 50	35 50	3 75	1 27	25 00	R13TSS		38 30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29 00	14	35 40	38 70	2 25	0 93	174 00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	14	8 00	49 70	2 84	1 45	26 00	R13TSS		39.30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
GNB	GNB30400	-30 00	14	-15 00	12 00	0 90	0 60	172 00	R13TSS		47.12		MODRES	CL		58.32	27M0F8W			P	7
IND	IND03701	68 00	14	93 00	25 50	1 46	1 13	40 00	R13TSS		42 27		MODRES	CL		59 07	27M0F8W			P	
IND	IND04500	56 00	14	76 20	19 50	1 58	1 58	21 00	R13TSS		40 47		MODRES	CL		58.67	27M0F8W			P	
IRL	IRL21100	-33 50	14	-8 20	53 20	0 84	0 60	162 00	R13TSS		47.42		MODRES	CR		59.42	27M0F8W			P	7
KRE	KRE28600	110 00	14	127 00	39 10	1 30	1 10	31 00	R13TSS		42 89		MODRES	CL		58.99	27M0F8W			P	
MAU	MAU24200	29.00	14	59 80	-18 90	1 82	1 24	55 00	R13TSS		41.42		MODRES	CR		59.12	27M0F8W			P	
MHL	MHL00000	146 00	14	167 64	9 83	2 07	0 90	157 42	R13TSS		41.75		MODRES	CR		58.95	27M0F8W			P	7
MKD	MKD14800	23 00	14	21 61	41 56	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W			P	5
MLI	MLI32700	-37 00	14	-2 00	19 00	2 66	1 26	127 00	R13TSS		39 19		MODRES	CR		58.19	27M0F8W			P	
NOR	BIFROS22	-0 80	14	17 00	61 50					NO9	32.00	6.00	MODRES	CR		54.50	27M0FXF	BIFROST-2		A	
NOR	NOR12000	5.00	14	13 10	64 10	1 84	0 88	10 00	R13TSS		42 35		MODRES	CL		59.95	27M0F8W			P	
NZL	CKH05200	158 00	14	-161 00	-19 80	1 02	0.64	132.00	R13TSS		46.30		MODRES	CL		59.80	27M0F8W		3	P	
NZL	CKH05201	158 00	14	-161 00	-19 80	1 02	0 64	132 00	R13TSS		46.30		MODRES	CL		59.80	27M0F8W		3	P	
PAK	PAK21000	38.00	14	72 10	30 80	1 16	0 72	90 00	R13TSS		45.23		MODRES	CR		58.63	27M0F8W		74	P	
PNG	PNG13100	110.00	14	147 70	-6 30	2.50	2 18	169 00	R13TSS		37.08		MODRES	CR		59.58	27M0F8W			P	
TCD	TCD14300	-13 00	14	18 10	15 50	3 40	1 72	107 00	R13TSS		36.78		MODRES	CL		59.08	27M0F8W			P	
TGO	TGO22600	-25.00	14	0 80	8 60	1 52	0 60	105 00	R13TSS		44 85		MODRES	CL		58.55	27M0F8W			P	
TUV	TUV00000	176 00	14	177 61	-7 11	0 94	0 60	137 58	R13TSS		46.93		MODRES	CR		58.93	27M0F8W			P	
USA	GUM33100	122.00	14	144 50	13 10	0 60	0 60	0 00	R13TSS		48.88		MODRES	CL		58.48	27M0F8W		15	P	
USA	GUM33101	122.00	14	144 50	13 10	0 60	0 60	0.00	R13TSS		48.88		MODRES	CL		58.48	27M0F8W		15	P	
YEM	YEM26600	11.00	14	44 00	15.67	0.80	0.60	114.88	R13TSS		47.66		MODRES	CR		58.66	27M0F8W			P	
ZAI	ZAI32300	-19.00	14	21 30	-6.80	2.80	1.52	149 00	R13TSS		38.16		MODRES	CR		59.76	27M0F8W			P	
AFG	AFG24500	50 00	15	70 20	35.50	1.32	1.13	53.00	R13TSS		42.71		MODRES	CR		58.01	27M0F8W			P	
AUS	AUS00400	152 00	15	123 00	-24 20	3.06	2.17	102.00	R13TSS		36.22		MODRES	CR		58.22	27M0F8W		76	P	
AUS	AUS0040A	152 00	15	96 83	-12 19	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS0040B	152.00	15	105 69	-10 45	0 60	0.60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS0040C	152.00	15	110 52	-66 28	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS00700	164.00	15	145 20	-38 10	2.12	1.02	147.00	R13TSS		41.09		MODRES	CR		58.49	27M0F8W		77	P	
AUS	AUS0070A	164 00	15	158 94	-54.50	0.60	0 60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		77	P	7
BEN	BEN23300	-19.00	15	2 20	9 50	1.44	0.68	97.00	R13TSS		44.54		MODRES	CL		58.44	27M0F8W			P	
BGD	BGD22000	74 00	15	90.30	23 60	1 46	0 84	135.00	R13TSS		43.56		MODRES	CR		58.66	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
CHN	CHN15800	79 80	15	111 80	38 00	2 60	1 74	124 00	R13TSS		37 89		MODRES	CR		59 89	27M0F8W			P	
CHN	CHN17400	92 00	15	118 10	25 90	1 02	0 84	82 00	R13TSS		45.12		MODRES	CL		59.12	27M0F8W			P	
COM	COM20700	29 00	15	44 10	-12 10	0 76	0 60	149 00	R13TSS		47.88		MODRES	CL		58.26	27M0F8W			P	
E	HISPASA2	-30 00	15	-8 80	35 40	3 00	1 90	45 00	R13TSS		36 90		MODRES	CL		59.00	27M0F8W	HISPASAT-2		A	5
F	F2_A2733	-7 00	15	2 60	45 90	2 50	0 98	160 00	R13TSS		41.60		MODRES	CR		57.70	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2773	-7 00	15	2 60	45 90	2 50	0 98	160 00	R13TSS		41.60		MODRES	CR		57.70	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2773	-7 00	15	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3373	-7 00	15	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2773	-7 00	15	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	68.00	56 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3373	-7 00	15	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	68.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29 00	15	1 90	49 00	1 82	1 82	0 00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	15	12 70	44 50	1 82	1 82	0 00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	15	8 90	61 30	3 06	0 71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	15	17 50	40 40	2 54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	15	-12 50	35 50	3 75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29 00	15	35 40	38 70	2 25	0 93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	15	8 00	49.70	2 84	1.45	26 00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FSM	FSM00000	146 00	15	151 67	5 42	5 34	1 51	168 52	R13TSS		35 37		MODRES	CL		58 87	27M0F8W			P	5, 7
GAB	GAB26000	-13 00	15	11 80	-0 60	1.43	1.12	64.00	R13TSS		42.40		MODRES	CR		58.50	27M0F8W			P	
GMB	GMB30200	-37 00	15	-15 10	13 40	0 79	0.60	4 00	R13TSS		47.69		MODRES	CL		58.49	27M0F8W			P	
GRC	GRC10500	5 00	15	24 70	38 20	1.78	0 98	156 00	R13TSS		42.03		MODRES	CR		58 53	27M0F8W			P	
IND	IND04301	58 00	15	77 80	11 10	1 36	1.28	172.00	R13TSS		42.04		MODRES	CR		58.54	27M0F8W			P	
IND	IND04700	68 00	15	93 30	11.10	1 92	0 60	96.00	R13TSS		43.83		MODRES	CR		58.63	27M0F8W			P	
INS	INS03600	104 00	15	135 20	-3 80	2 46	2 00	147.00	R13TSS		37.53		MODRES	CR		58.93	27M0F8W			P	
IRN	IRN10900	34 00	15	54 20	32 40	3 82	1.82	149.00	R13TSS		36.03		MODRES	CL		58.03	27M0F8W		72	P	
J	000BS-3N	109 85	15	134 50	31.50	3.52	3.30	68.00	R13TSS		33.80		R13RES	CR		64.40	27M0F8W	BS-3N	33	AE	
J	J 11100	110 00	15	134 50	31 50	3.52	3 30	68 00	R13TSS		33.80		R13RES	CR		64.40	27M0F8W		33	PE	
KIR	KIR00002	176 00	15	-157.78	-0.33	2.40	0.64	110.62	R13TSS		42.60		MODRES	CL		58.90	27M0F8W			P	5
LBN	LBN27900	11.00	15	35 80	33.90	0 60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.78	27M0F8W			P	
LBR	LBR24400	-33 50	15	-9 30	6.60	1.22	0.70	133.00	R13TSS		45.13		MODRES	CR		58.43	27M0F8W			P	7
LBY	LBY32100	-25.00	15	13 10	27.20	2.36	1 12	129.00	R13TSS		40.23		MODRES	CL		58.23	27M0F8W			P	
LIE	LIE25300	-37.00	15	9 50	47.10	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	
LTU	LTU06100	23 00	15	23 79	55 66	0.70	0.60	176.00	R13TSS		48.21		MODRES	CL		58.91	27M0F8W			P	
LUX	LUX11400	-19 00	15	6 00	49 80	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58 06	27M0F8W			P	
NRU	NRU30900	134 00	15	167.00	-0.50	0 60	0.60	0.00	R13TSS		48.88		MODRES	CL		57.88	27M0F8W			P	
ROU	ROU13600	-1 00	15	25 00	45.70	1.38	0.66	155.00	R13TSS		44 85		MODRES	CL		58.95	27M0F8W			P	5
SMO	SMO05700	158.00	15	-172 30	-13.70	0 60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.78	27M0F8W			P	
SNG	SNG15100	74 00	15	103 80	1.30	0 60	0 60	0.00	R13TSS		48.88		MODRES	CL		58.68	27M0F8W			P	
SOM	SOM31200	23.00	15	45 00	6.40	3.26	1.54	71.00	R13TSS		37.44		MODRES	CR		57.54	27M0F8W			P	
SVK	SVK14400	17.00	15	19 65	48.69	0.82	0.60	5.20	R13TSS		47.53		MODRES	CR		58.93	27M0F8W			P	
UGA	UGA05100	11.00	15	32 30	1.20	1.46	1 12	60.00	R13TSS		42.31		MODRES	CR		58.41	27M0F8W			P	
UKR	UKR06300	38.00	15	31.74	48.22	2 29	0.98	177.76	R13TSS		41.01		MODRES	CL		58.91	27M0F8W			P	5
USA	MRA33200	122.00	15	145.90	16.90	1 20	0.60	76.00	R13TSS		45.87		MODRES	CR		58.57	27M0F8W		14	P	
USA	MRA33201	122.00	15	145 90	16.90	1.20	0.60	76.00	R13TSS		45.87		MODRES	CR		58.57	27M0F8W		14	P	
UZB	UZB07100	44.00	15	64 01	41.21	2.67	0.98	163.32	R13TSS		40.37		MODRES	CL		58.87	27M0F8W			P	5
VTN	VTN32500	86.00	15	108 00	14 80	3 80	1.90	126 00	R123FR		35.86		MODRES	CL		58.36	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm. Symb	Beam Identification	Orbital Position°	Channel	Boresight Long.°	Boresight Lat.°	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap. Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
VUT	VUT12800	140.00	15	168.00	-16.40	1.52	0.68	87.00	R13TSS		44.30		MODRES	CL		58.00	27M0F8W			P	
ZMB	ZMB31400	-1.00	15	27.50	-13.10	2.38	1.48	39.00	R13TSS		38.98		MODRES	CR		58.88	27M0F8W			P	
ALG	ALG25200	-25.00	16	1.60	25.50	3.64	2.16	152.00	R13TSS		35.49		MODRES	CR		57.99	27M0F8W			P	
AND	AND34100	-37.00	16	1.60	42.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.58	27M0F8W			P	
ARS	ARS00300	17.00	16	41.10	23.80	3.52	1.68	134.00	R13TSS		36.73		MODRES	CL		57.83	27M0F8W		70	P	
AUS	AUS00500	152.00	16	133.90	-18.40	2.82	1.74	105.00	R13TSS		37.53		MODRES	CL		59.43	27M0F8W			P	
AUT	AUT01600	-19.00	16	12.20	47.50	1.14	0.63	166.00	R13TSS		45.88		MODRES	CL		59.28	27M0F8W			P	
AZE	AZE06400	23.00	16	47.47	40.14	0.93	0.60	158.14	R13TSS		46.98		MODRES	CR		58.88	27M0F8W			P	5
BRU	BRU3300A	74.00	16	114.70	4.40	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	5
BUL	BUL02000	-1.00	16	25.00	43.00	1.04	0.60	165.00	R13TSS		46.50		MODRES	CR		58.80	27M0F8W			P	
CHN	CHN16900	92.00	16	118.50	36.40	1.16	0.76	11.00	R13TSS		44.99		MODRES	CR		59.69	27M0F8W			P	
CHN	CHN18600	62.00	16	102.50	30.20	1.91	1.23	147.00	R13TSS		40.74		MODRES	CL		60.54	27M0F8W			P	
DNK	DNK08900	5.00	16	12.30	57.10	1.20	0.60	177.00	R13TSS		45.87		MODRES	CL		59.37	27M0F8W		28	P	
EGY	EGY02600	-7.00	16	29.70	26.80	2.33	1.72	136.00	R13TSS		38.42		MODRES	CL		58.32	27M0F8W			P	
F	F2_A2744	-7.00	16	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2784	-7.00	16	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2784	-7.00	16	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3384	-7.00	16	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2784	-7.00	16	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3384	-7.00	16	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F	OCE10100	-160.00	16	-145.00	-16.30	4.34	3.54	4.00	R13TSS		32.58		MODRES	CL		58.68	27M0F8W			P	
F /EUT	E2WA7DA2	29.00	16	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29.00	16	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29.00	16	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29.00	16	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	16	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29.00	16	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29.00	16	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
G	G 02700	-33.50	16	-3.50	53.80	1.84	0.72	142.00	R13TSS		43.23		MODRES	CR		60.23	27M0F8W			P	7
IND	IND04000	56.00	16	73.00	25.00	1.82	1.48	58.00	R13TSS		40.14		MODRES	CL		58.84	27M0F8W			P	
IND	IND04801	68.00	16	86.20	25.00	1.56	0.90	120.00	R13TSS		42.97		MODRES	CL		60.47	27M0F8W			P	
KRE	KRE28600	110.00	16	127.00	39.10	1.30	1.10	31.00	R13TSS		42.89		MODRES	CL		58.99	27M0F8W			P	
MAU	MAU24300	29.00	16	56.80	-13.90	1.56	1.38	65.00	R13TSS		41.12		MODRES	CR		58.92	27M0F8W			P	
MDA	MDA06300	36.00	16	28.41	46.99	0.60	0.60	90.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	5
MLA	MLA22700	86.00	16	102.10	4.10	1.62	0.82	135.00	R13TSS		43.21		MODRES	CR		58.21	27M0F8W			P	1
MLD	MLD30600	44.00	16	73.10	6.00	0.96	0.60	90.00	R13TSS		46.84		MODRES	CR		58.74	27M0F8W			P	
MLI	MLI32800	-37.00	16	-7.60	13.20	1.74	1.24	171.00	R13TSS		41.11		MODRES	CR		58.91	27M0F8W			P	
MLT	MLT14700	-13.00	16	14.30	35.90	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		56.18	27M0F8W			P	
MOZ	MOZ30700	-1.00	16	34.00	-18.00	3.57	1.38	55.00	R13TSS		37.52		MODRES	CL		59.42	27M0F8W			P	
NZL	CKH05300	158.00	16	-163.00	-11.20	1.76	0.72	30.00	R13TSS		43.42		MODRES	CL		59.52	27M0F8W		4	P	
NZL	CKH05301	158.00	16	-163.00	-11.20	1.76	0.72	30.00	R13TSS		43.42		MODRES	CL		59.52	27M0F8W		4	P	
PHL	PHL28500	98.00	16	121.30	11.10	3.46	1.76	99.00	R13TSS		36.60		MODRES	CL		58.70	27M0F8W			P	
PLW	PLW00000	146.00	16	132.99	5.52	1.29	0.60	55.84	R13TSS		45.55		MODRES	CR		58.85	27M0F8W			P	7
RRW	RRW31000	11.00	16	30.00	-2.10	0.66	0.60	42.00	R13TSS		46.47		MODRES	CL		59.97	27M0F8W			P	
S	SIRIUS02	5.20	16	14.00	63.00	1.30	0.70	142.00	R13TSS		42.50		R13RES	CR		58.00	27M0F8W	SIRIUS	28	AE	
STP	STP24100	-13.00	16	7.00	0.80	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.58	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm. Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap Beam	Space Ant Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
SVN	SVN14800	34 00	16	15 01	46 18	0 60	0 60	90.00	R13TSS		46.66		MODRES	CR		58.88	27M0F8W			P	5
TON	TON21500	170.00	16	-174 70	-18 00	1 41	0 68	85.00	R13TSS		44 63		MODRES	CR		58.53	27M0F8W			P	
ZAI	ZAI32200	-19 00	16	22 40	0 00	2 16	1 88	48 00	R13TSS		38.36		MODRES	CR		59 86	27M0F8W			P	
AUS	AUS00900	164 00	17	147 50	-32 10	2 31	1.43	187.00	R13TSS		39.25		MODRES	CR		59.25	27M0F8W		78	P	
AUS	AUS0090A	164 00	17	159 06	-31 52	0 60	0 60	0 00	R13TSS		46.88		MODRES	CR		58.68	27M0F8W		78	P	7
AUS	AUS0090B	164 00	17	167 93	-29 02	0 60	0 60	0.00	R13TSS		46.66		MODRES	CR		58.88	27M0F8W		78	P	7
BLR	BLR06200	38 00	17	27 91	53 06	1 21	0 60	11.47	R13TSS		45.83		MODRES	CL		58.93	27M0F8W			P	5
BRM	BRM29800	74 00	17	97.10	19 10	3 58	1.48	104.00	R13TSS		37.21		MODRES	CL		58.91	27M0F8W			P	
BTN	BTN03100	86 00	17	90 44	27 05	0 72	0.60	175.47	R13TSS		48 11		MODRES	CR		58 91	27M0F8W			P	5
CHN	CHN16700	92 00	17	124 30	43 70	1 98	0 72	156.00	R13TSS		42.91		MODRES	CL		59.71	27M0F8W			P	
CHN	CHN18200	79 80	17	108 70	35 10	1.42	0 88	109 00	R13TSS		43.48		MODRES	CR		59.18	27M0F8W			P	
CME	CME30000	-13 00	17	12 70	6.20	2 54	1.68	87.00	R13TSS		38.15		MODRES	CR		58.65	27M0F8W			P	
E	HISPASA2	-30 00	17	-8 80	35 40	3 00	1.90	45.00	R13TSS		36.90		MODRES	CL		59.00	27M0F8W	HISPASAT-2		A	5
EST	EST06100	23.00	17	25 01	58 47	0 72	0 60	9.93	R13TSS		46.09		MODRES	CL		58.89	27M0F8W			P	5
F	F 09300	-19 00	17	2 60	45 90	2.50	0 98	160.00	R13TSS		40.56		R13RES	CR		63.96	27M0F8W		19	PE	
F	F 09306	-7 00	17	2 60	45 90	2 50	0 98	160.00	R13TSS		41.00		MODRES	CR		58 90	27M0F8W	RADIOSAT	19	A	
F	F3_A2751	-7 00	17	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3351	-7 00	17	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56 00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2751	-7 00	17	2 60	45 90	2 50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3351	-7 00	17	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29 00	17	1.90	49.00	1 82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	17	12 70	44 50	1 82	1.82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	17	8 90	61 30	3 06	0.71	9 00	R13TSS		41.50		R13RES	CR		60 50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	17	17 50	40 40	2 54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	17	-12 50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29 00	17	35 40	38 70	2 25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	17	8 00	49.70	2 84	1.45	26 00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
GUI	GUI19200	-37.00	17	-11 00	10.20	1.58	1.04	147.00	R13TSS		42.29		MODRES	CL		58.69	27M0F8W			P	
HRV	HRV14800	34 00	17	16.74	44 54	0.88	0.69	5.30	R13TSS		46.57		MODRES	CL		58.87	27M0F8W			P	5
IND	IND03801	56 00	17	75.90	33.40	1.52	1.08	33.00	R13TSS		42.29		MODRES	CR		59.29	27M0F8W			P	
IND	IND04600	68 00	17	84 70	20.50	1 60	0.86	30.00	R13TSS		43.06		MODRES	CR		58.56	27M0F8W			P	
INS	INS03200	80 20	17	112.30	-0.30	2 66	2.32	109.00	R13TSS		36.54		MODRES	CL		59.04	27M0F8W			P	
LBY	LBY28000	-25.00	17	21 40	26.00	2.50	1.04	119.00	R13TSS		40.30		MODRES	CL		58.70	27M0F8W			P	
MDG	MDG23600	29 00	17	46 60	-18 80	2 72	1.14	65.00	R13TSS		39.53		MODRES	CL		58.53	27M0F8W			P	
NPL	NPL12200	50.00	17	83.70	28 30	1.72	0.60	163 00	R13TSS		44.31		MODRES	CL		59.61	27M0F8W			P	
NZL	NZL28700	128.00	17	173.00	-41.00	3 30	1.28	48.00	R13TSS		38.19		MODRES	CR		59.79	27M0F8W			P	
POL	POL13200	-1.00	17	19.30	51.80	1.46	0 64	162.00	R13TSS		44.74		MODRES	CL		59.34	27M0F8W			P	
QAT	QAT24700	17.00	17	51.10	25.30	0 60	0 60	0.00	R13TSS		48.88		MODRES	CR		56.98	27M0F8W			P	1
SMR	SMR31100	-37.00	17	12 60	43.70	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.68	27M0F8W			P	
SWZ	SWZ31300	-1.00	17	31.50	-26 50	0.62	0.60	66.00	R13TSS		48.74		MODRES	CR		58.04	27M0F8W			P	
TJK	TJK06900	44 00	17	71 14	38.37	1.25	0.76	159.15	R13TSS		44.65		MODRES	CL		58.65	27M0F8W			P	5
TUR	TUR14500	5 00	17	34 40	38.90	2.68	1.04	168.00	R13TSS		40.00		MODRES	CR		58.90	27M0F8W			P	
USA	PLM33700	170.00	17	-161.40	7.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W		9	P	
USA	PLM33701	170.00	17	-161.40	7.00	0.60	0.60	0 00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W		9	P	
USA	SMA33500	170.00	17	-170 10	-14.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.38	27M0F8W		13	P	
USA	SMA33501	170.00	17	-170.10	-14.20	0.60	0 60	0 00	R13TSS		48.88		MODRES	CL		56 38	27M0F8W		13	P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm. Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
USA	WAK33400	140.00	17	166.50	19.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.78	27M0F8W		11	P	
USA	WAK33401	140.00	17	166.50	19.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.78	27M0F8W		11	P	
YEM	YEM26700	11.00	17	48.61	14.42	1.68	1.44	157.35	R13TSS		40.61		MODRES	CL		58.91	27M0F8W			P	
	YYY00001	11.00	17	34.99	31.86	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	3, 5
ALG	ALG25100	-25.00	18	4.20	33.20	2.45	1.25	172.00	R13TSS		39.59		MODRES	CR		58.59	27M0F8W			P	
ARS	ARS27500	17.00	18	48.30	24.60	3.84	1.20	136.00	R13TSS		37.81		MODRES	CL		58.01	27M0F8W			P	
AUS	AUS00600	152.00	18	136.60	-30.90	2.41	1.52	161.00	R13TSS		38.80		MODRES	CL		58.40	27M0F8W			P	
AUS	AUS00800	164.00	18	145.90	-21.70	3.62	1.63	136.00	R13TSS		36.73		MODRES	CL		58.83	27M0F8W			P	
BGD	BGD22000	74.00	18	90.30	23.60	1.46	0.84	135.00	R13TSS		43.56		MODRES	CR		58.66	27M0F8W			P	
BIH	BIH14800	34.00	18	17.77	44.32	0.62	0.60	166.84	R13TSS		48.71		MODRES	CR		58.91	27M0F8W			P	5
BOT	BOT29700	-1.00	18	23.30	-22.20	2.13	1.50	36.00	R13TSS		39.40		MODRES	CL		59.00	27M0F8W			P	
BRU	BRU3300A	74.00	18	114.70	4.40	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	5
CBG	CBG29900	68.00	18	105.00	12.70	1.01	0.90	110.00	R13TSS		44.86		MODRES	CR		59.26	27M0F8W			P	
CHN	CHN15900	79.80	18	109.40	27.30	2.14	1.72	107.00	R13TSS		38.79		MODRES	CL		59.49	27M0F8W			P	
CHN	CHN18500	62.00	18	95.70	35.40	2.10	1.14	156.00	R13TSS		40.66		MODRES	CR		58.36	27M0F8W			P	
D	D 08700	-19.00	18	9.60	49.90	1.62	0.72	147.00	R13TSS		43.78		MODRES	CL		60.68	27M0F8W			P	
F	F2_A2722	-7.00	18	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		57.20	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2722	-7.00	18	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		57.20	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2762	-7.00	18	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		57.20	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2722	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2762	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3322	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3362	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2722	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2762	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3322	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3362	-7.00	18	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA2	29.00	18	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29.00	18	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29.00	18	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29.00	18	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	18	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29.00	18	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29.00	18	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
GNB	GNB30400	-30.00	18	-15.00	12.00	0.90	0.60	172.00	R13TSS		47.12		MODRES	CL		58.32	27M0F8W			P	7
IND	IND04100	56.00	18	78.40	16.00	2.08	1.38	35.00	R13TSS		39.87		MODRES	CL		58.77	27M0F8W			P	
IND	IND04201	68.00	18	79.30	27.70	2.14	1.16	147.00	R13TSS		40.50		MODRES	CL		58.80	27M0F8W			P	
INS	INS03000	80.20	18	112.30	-8.10	3.14	1.46	169.00	R13TSS		37.83		MODRES	CR		59.23	27M0F8W			P	
IRL	IRL21100	-33.50	18	-8.20	53.20	0.84	0.60	162.00	R13TSS		47.42		MODRES	CR		59.52	27M0F8W			P	7
KRE	KRE28600	110.00	18	127.00	39.10	1.30	1.10	31.00	R13TSS		42.89		MODRES	CL		58.99	27M0F8W			P	
MAU	MAU24200	29.00	18	59.80	-18.90	1.62	1.24	55.00	R13TSS		41.42		MODRES	CR		59.22	27M0F8W			P	
MHL	MHL00000	146.00	18	167.64	9.83	2.07	0.90	157.42	R13TSS		41.75		MODRES	CR		58.95	27M0F8W			P	7
MKD	MKD14800	23.00	18	21.61	41.56	0.60	0.60	90.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	5
MLA	MLA22700	86.00	18	102.10	4.10	1.62	0.82	135.00	R13TSS		43.21		MODRES	CR		58.31	27M0F8W			P	
MLI	MLI32700	-37.00	18	-2.00	19.00	2.66	1.26	127.00	R13TSS		39.19		MODRES	CR		58.19	27M0F8W			P	
NOR	BIFROS22	-0.80	18	17.00	61.50					NO9	32.00	6.00	MODRES	CR		54.50	27M0FXF	BIFROST-2		A	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long.°	Boresight Lat.°	Space Antenna Character. Major°	Space Antenna Character. Minor°	Space Antenna Character. Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	Space Ant. Gain X-pol.	Earth Antenna	Polarization Typ.	Polarization Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
NOR	NOR12000	5.00	18	13.10	64.10	1.84	0.88	10.00	R13TSS		42.35		MODRES	CL		59.95	27M0F8W			P	
PAK	PAK28100	38.00	18	65.20	27.90	1.52	1.42	28.00	R13TSS		41.11		MODRES	CR		58.01	27M0F8W			P	
PHL	PHL28500	98.00	18	121.30	11.10	3.46	1.76	99.00	R13TSS		36.60		MODRES	CL		58.70	27M0F8W			P	
TCD	TCD14300	-13.00	18	18.10	15.50	3.40	1.72	107.00	R13TSS		36.76		MODRES	CL		59.18	27M0F8W			P	
TGO	TGO22600	-25.00	18	0.80	8.60	1.52	0.60	105.00	R13TSS		44.65		MODRES	CL		58.65	27M0F8W			P	
USA	GUM33100	122.00	18	144.50	13.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		58.48	27M0F8W		15	P	
USA	GUM33101	122.00	18	144.50	13.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		58.48	27M0F8W		15	P	
YEM	YEM26600	11.00	18	44.00	15.67	0.80	0.60	114.88	R13TSS		47.66		MODRES	CR		58.66	27M0F8W			P	
ZAI	ZAI32300	-19.00	18	21.30	-6.80	2.80	1.52	149.00	R13TSS		38.16		MODRES	CR		59.86	27M0F8W			P	
AUS	AUS00400	152.00	19	123.00	-24.20	3.06	2.17	102.00	R13TSS		36.22		MODRES	CR		58.22	27M0F8W		76	P	
AUS	AUS0040A	152.00	19	96.63	-12.19	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS0040B	152.00	19	105.69	-10.45	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS0040C	152.00	19	110.52	-66.28	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS00700	164.00	19	145.20	-38.10	2.12	1.02	147.00	R13TSS		41.09		MODRES	CR		58.49	27M0F8W		77	P	
AUS	AUS0070A	164.00	19	158.94	-54.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		77	P	7
BEN	BEN23300	-19.00	19	2.20	9.50	1.44	0.68	97.00	R13TSS		44.54		MODRES	CL		58.54	27M0F8W			P	
BRM	BRM29800	74.00	19	97.10	19.10	3.58	1.48	104.00	R13TSS		37.21		MODRES	CL		58.91	27M0F8W			P	
CHN	CHN15800	79.80	19	111.80	38.00	2.60	1.74	124.00	R13TSS		37.89		MODRES	CR		59.89	27M0F8W			P	
CHN	CHN17900	92.00	19	112.20	21.90	1.84	1.22	37.00	R13TSS		40.94		MODRES	CL		58.84	27M0F8W			P	
COM	COM2070A	29.00	19	44.10	-12.10	0.76	0.60	149.00	R13TSS		47.86		MODRES	CL		58.26	27M0F8W			P	5
E	HISPASA2	-30.00	19	-8.80	35.40	3.00	1.90	45.00	R13TSS		36.90		MODRES	CL		59.00	27M0F8W	HISPASAT-2		A	5
F	F2_A2733	-7.00	19	2.60	45.90	2.50	0.98	160.00	R13TSS		41.60		MODRES	CR		57.20	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2773	-7.00	19	2.60	45.90	2.50	0.98	160.00	R13TSS		41.60		MODRES	CR		57.20	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2773	-7.00	19	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3373	-7.00	19	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2773	-7.00	19	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3373	-7.00	19	2.60	45.90	2.50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	68.00	56.00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29.00	19	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	19	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	19	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29.00	19	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	19	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	19	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29.00	19	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FSM	FSM00000	146.00	19	151.67	5.42	5.34	1.51	166.52	R13TSS		35.37		MODRES	CL		58.87	27M0F8W			P	5, 7
GAB	GAB26000	-13.00	19	11.80	-0.60	1.43	1.12	64.00	R13TSS		42.40		MODRES	CR		58.60	27M0F8W			P	
GMB	GMB30200	-37.00	19	-15.10	13.40	0.79	0.60	4.00	R13TSS		47.69		MODRES	CL		58.49	27M0F8W			P	
GRC	GRC10500	5.00	19	24.70	38.20	1.76	0.98	156.00	R13TSS		42.03		MODRES	CR		58.53	27M0F8W			P	
IND	IND03800	56.00	19	75.90	33.40	1.52	1.08	33.00	R13TSS		42.29		MODRES	CR		59.29	27M0F8W			P	
IND	IND04601	68.00	19	84.70	20.50	1.60	0.86	30.00	R13TSS		43.06		MODRES	CR		58.56	27M0F8W			P	
INS	INS03200	80.20	19	112.30	-0.30	2.66	2.32	109.00	R13TSS		36.54		MODRES	CL		59.14	27M0F8W			P	
INS	INS03600	104.00	19	135.20	-3.80	2.46	2.00	147.00	R13TSS		37.53		MODRES	CR		59.03	27M0F8W			P	1
IRN	IRN10900	34.00	19	54.20	32.40	3.82	1.82	149.00	R13TSS		36.03		MODRES	CL		58.03	27M0F8W		72	P	
KIR	KIR00002	176.00	19	-157.78	-0.33	2.40	0.64	110.82	R13TSS		42.60		MODRES	CL		58.90	27M0F8W			P	5
LBN	LBN27900	11.00	19	35.80	33.90	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.78	27M0F8W			P	
LBR	LBR2440A	-33.50	19	-9.30	6.60	1.22	0.70	133.00	R13TSS		45.13		MODRES	CR		58.43	27M0F8W			P	5, 7

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
LBY	LBY32100	-25.00	19	13.10	27.20	2.36	1.12	129.00	R13TSS		40.23		MODRES	CL		58.33	27M0F8W			P	
LIE	LIE25300	-37.00	19	9.50	47.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	
LTU	LTU06100	23.00	19	23.79	55.66	0.70	0.60	176.00	R13TSS		48.21		MODRES	CL		58.91	27M0F8W			P	
LUX	LUX11400	-19.00	19	6.00	49.80	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.08	27M0F8W			P	
NPL	NPL12200	50.00	19	83.70	28.30	1.72	0.60	163.00	R13TSS		44.31		MODRES	CL		59.61	27M0F8W			P	
NZL	NIU05400	158.00	19	-169.80	-19.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		59.08	27M0F8W		2	P	
NZL	NIU05401	158.00	19	-169.80	-19.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		59.08	27M0F8W		2	P	
ROU	ROU13600	-1.00	19	25.00	45.70	1.38	0.66	155.00	R13TSS		44.85		MODRES	CL		58.95	27M0F8W			P	5
SOM	SOM31200	23.00	19	45.00	6.40	3.26	1.54	71.00	R13TSS		37.44		MODRES	CR		57.84	27M0F8W			P	
SVK	SVK14400	17.00	19	19.65	48.69	0.82	0.60	5.20	R13TSS		47.53		MODRES	CR		58.93	27M0F8W			P	
UGA	UGA05100	11.00	19	32.30	1.20	1.46	1.12	60.00	R13TSS		42.31		MODRES	CR		58.41	27M0F8W			P	
UKR	UKR06300	38.00	19	31.74	48.22	2.29	0.96	177.78	R13TSS		41.01		MODRES	CL		58.91	27M0F8W			P	5
USA	MRA33200	122.00	19	145.90	16.90	1.20	0.60	76.00	R13TSS		45.87		MODRES	CR		58.67	27M0F8W		14	P	
USA	MRA33201	122.00	19	145.90	16.90	1.20	0.60	76.00	R13TSS		45.87		MODRES	CR		58.67	27M0F8W		14	P	
UZB	UZB07100	44.00	19	64.01	41.21	2.67	0.96	163.32	R13TSS		40.37		MODRES	CL		58.87	27M0F8W			P	5
ZMB	ZMB31400	-1.00	19	27.50	-13.10	2.38	1.48	39.00	R13TSS		38.98		MODRES	CR		58.88	27M0F8W			P	
ALG	ALG25200	-25.00	20	1.60	25.50	3.64	2.16	152.00	R13TSS		35.49		MODRES	CR		57.99	27M0F8W			P	
AND	AND34100	-37.00	20	1.60	42.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.68	27M0F8W			P	
ARS	ARS00300	17.00	20	41.10	23.80	3.52	1.68	134.00	R13TSS		36.73		MODRES	CL		57.93	27M0F8W		70	P	
AUS	AUS00500	152.00	20	133.90	-16.40	2.82	1.74	105.00	R13TSS		37.53		MODRES	CL		59.43	27M0F8W			P	
AUT	AUT01600	-19.00	20	12.20	47.50	1.14	0.63	166.00	R13TSS		45.88		MODRES	CL		59.28	27M0F8W			P	
AZE	AZE06400	23.00	20	47.47	40.14	0.93	0.60	158.14	R13TSS		46.98		MODRES	CR		58.88	27M0F8W			P	5
BGD	BGD22000	74.00	20	90.30	23.60	1.46	0.84	135.00	R13TSS		43.56		MODRES	CR		58.66	27M0F8W			P	
BUL	BUL02000	-1.00	20	25.00	43.00	1.04	0.60	165.00	R13TSS		46.50		MODRES	CR		58.90	27M0F8W			P	
CBG	CBG29900	68.00	20	105.00	12.70	1.01	0.90	110.00	R13TSS		44.86		MODRES	CR		59.26	27M0F8W			P	
CHN	CHN15900	79.80	20	109.40	27.30	2.14	1.72	107.00	R13TSS		38.79		MODRES	CL		59.59	27M0F8W			P	
CHN	CHN18400	62.00	20	101.00	37.90	2.78	0.82	144.00	R13TSS		40.87		MODRES	CR		58.87	27M0F8W			P	
DNK	DNK08901	5.00	20	12.30	57.10	1.20	0.60	177.00	R13TSS		45.87		MODRES	CL		59.37	27M0F8W		29	P	
EGY	EGY02600	-7.00	20	29.70	26.80	2.33	1.72	136.00	R13TSS		38.42		MODRES	CL		58.32	27M0F8W			P	
F	F2_A2744	-7.00	20	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2784	-7.00	20	3.40	45.60	2.00	0.95	155.00	R13TSS		42.70		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2784	-7.00	20	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3384	-7.00	20	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2784	-7.00	20	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	55.20	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3384	-7.00	20	3.40	45.60	2.00	0.95	155.00	RAD_TSS		42.70		MODRES	LE	158.00	54.70	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA2	29.00	20	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29.00	20	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29.00	20	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29.00	20	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	20	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29.00	20	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29.00	20	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
G	G 02700	-33.50	20	-3.50	53.80	1.84	0.72	142.00	R13TSS		43.23		MODRES	CR		60.23	27M0F8W			P	7
IND	IND04101	56.00	20	78.40	16.00	2.08	1.38	35.00	R13TSS		39.87		MODRES	CL		58.77	27M0F8W			P	
IND	IND04200	68.00	20	79.30	27.70	2.14	1.16	147.00	R13TSS		40.50		MODRES	CL		58.80	27M0F8W			P	
INS	INS03000	80.20	20	112.30	-8.10	3.14	1.46	169.00	R13TSS		37.83		MODRES	CR		59.23	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap. Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
KRE	KRE28600	110.00	20	127.00	39.10	1.30	1.10	31.00	R13TSS		42.89		MODRES	CL		58.99	27M0F8W			P	
MDA	MDA06300	38.00	20	28.41	46.99	0.60	0.60	90.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	5
MLA	MLA22700	86.00	20	102.10	4.10	1.62	0.82	135.00	R13TSS		43.21		MODRES	CR		58.31	27M0F8W			P	
MLI	MLI32800	-37.00	20	-7.60	13.20	1.74	1.24	171.00	R13TSS		41.11		MODRES	CR		58.91	27M0F8W			P	
MLT	MLT1470A	-13.00	20	14.30	35.90	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		56.18	27M0F8W			P	5, 7
MOZ	MOZ30700	-1.00	20	34.00	-18.00	3.57	1.38	55.00	R13TSS		37.52		MODRES	CL		59.42	27M0F8W			P	
NZL	TKL05800	158.00	20	-171.80	-8.90	0.70	0.60	35.00	R13TSS		48.21		MODRES	CR		58.81	27M0F8W		1	P	
NZL	TKL05801	158.00	20	-171.80	-8.90	0.70	0.60	35.00	R13TSS		48.21		MODRES	CR		58.81	27M0F8W		1	P	
PAK	PAK28200	38.00	20	68.50	25.80	1.32	0.62	133.00	R13TSS		45.32		MODRES	CR		58.32	27M0F8W			P	
PHL	PHL28500	98.00	20	121.30	11.10	3.46	1.76	99.00	R13TSS		36.60		MODRES	CL		58.70	27M0F8W			P	
PLW	PLW00000	146.00	20	132.99	5.52	1.29	0.60	55.84	R13TSS		45.55		MODRES	CR		58.85	27M0F8W			P	7
RRW	RRW31000	11.00	20	30.00	-2.10	0.66	0.60	42.00	R13TSS		48.47		MODRES	CL		59.97	27M0F8W			P	
S	SIRIUS03	5.20	20	14.00	63.00	1.30	0.70	142.00	R13TSS		42.50		R13RES	CR		58.00	27M0F8W	SIRIUS	29	AE	
STP	STP24100	-13.00	20	7.00	0.80	0.60	0.60	0.00	R13TSS		48.88		MODRES	CL		56.68	27M0F8W			P	
SVN	SVN14600	34.00	20	15.01	46.18	0.60	0.60	90.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W			P	5
ZAI	ZAI32200	-19.00	20	22.40	0.00	2.16	1.88	48.00	R13TSS		38.36		MODRES	CR		59.86	27M0F8W			P	
AFS	AFS02100	5.00	21	24.50	-28.00	3.13	1.68	27.00	R13TSS		37.24		MODRES	CL		59.14	27M0F8W			P	
AUS	AUS00900	164.00	21	147.50	-32.10	2.31	1.43	187.00	R13TSS		39.25		MODRES	CR		59.25	27M0F8W		78	P	
AUS	AUS0090A	164.00	21	159.06	-31.52	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		78	P	7
AUS	AUS0090B	164.00	21	167.93	-29.02	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		78	P	7
BEL	BEL01800	-19.00	21	4.60	50.60	0.82	0.60	167.00	R13TSS		47.53		MODRES	CR		59.23	27M0F8W			P	
BFA	BFA10700	-30.00	21	-1.50	12.20	1.45	1.14	29.00	R13TSS		42.26		MODRES	CR		58.96	27M0F8W			P	7
BRM	BRM29800	74.00	21	97.10	19.10	3.58	1.48	104.00	R13TSS		37.21		MODRES	CL		58.91	27M0F8W			P	
CHN	CHN17500	92.00	21	121.40	23.80	1.14	0.82	64.00	R13TSS		44.74		MODRES	CL		59.34	27M0F8W			P	
CHN	CHN17600	79.80	21	113.70	33.90	1.20	0.80	141.00	R13TSS		44.62		MODRES	CR		59.32	27M0F8W			P	
CYP	CYP08600	5.00	21	33.30	35.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.58	27M0F8W			P	
D	D2-21600	-1.00	21	12.60	52.10	0.83	0.63	172.00	R13TSS		47.26		MODRES	CL		59.16	27M0F8W			P	
DJI	DJI09900	23.00	21	42.50	11.60	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.46	27M0F8W			P	
F /EUT	E2WA7DA1	29.00	21	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	21	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	21	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29.00	21	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	21	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	21	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29.00	21	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
IND	IND03800	56.00	21	75.90	33.40	1.52	1.08	33.00	R13TSS		42.29		MODRES	CR		59.39	27M0F8W			P	
IND	IND04601	68.00	21	84.70	20.50	1.60	0.86	30.00	R13TSS		43.06		MODRES	CR		58.66	27M0F8W			P	
INS	INS03200	80.20	21	112.30	-0.30	2.66	2.32	109.00	R13TSS		36.54		MODRES	CL		59.14	27M0F8W			P	
ISL	ISL04900	-33.50	21	-19.00	64.90	1.00	0.60	177.00	R13TSS		46.67		MODRES	CL		60.77	27M0F8W			P	7
ISR	ISR1100A	-13.00	21	34.90	31.40	0.94	0.60	117.00	R13TSS		46.93		MODRES	CL		58.83	27M0F8W			P	5, 7
KEN	KEN24900	11.00	21	37.90	1.10	2.29	1.56	94.00	R13TSS		38.92		MODRES	CR		58.72	27M0F8W			P	
LVA	LVA06100	23.00	21	24.53	56.20	0.83	0.60	0.05	R13TSS		47.50		MODRES	CL		58.90	27M0F8W			P	5
MCO	MCO11800	-37.00	21	7.40	43.70	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.38	27M0F8W			P	
MRC	MRC20900	-25.00	21	-9.00	29.20	2.72	1.47	43.00	R13TSS		38.43		MODRES	CL		58.33	27M0F8W			P	
NMB	NMB0250A	-19.00	21	17.50	-21.60	2.66	1.90	48.00	R13TSS		37.41		MODRES	CL		59.71	27M0F8W			P	5
NPL	NPL12200	50.00	21	83.70	28.30	1.72	0.60	183.00	R13TSS		44.31		MODRES	CL		59.61	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
NZL	NZL28700	128 00	21	173 00	-41 00	3 30	1 28	48 00	R13TSS		38 19		MODRES	CR		59.89	27M0F8W			P	
POR	AZR13400	-30 00	21	-23 40	36 10	2 56	0 70	158 00	R13TSS		41 91		MODRES	CL		58.01	27M0F8W		21	P	7
POR	POR13300	-30 00	21	-8 00	39 60	0 92	0 60	112 00	R13TSS		47.03		MODRES	CL		58 43	27M0F8W		21	P	5, 7
SEN	SEN22201	-37 00	21	-14 40	13 60	1 46	1 04	139 00	R13TSS		42 63		MODRES	CL		58 63	27M0F8W			P	
UAE	UAE27400	17 00	21	53 60	24 20	0 98	0 80	162 00	R13TSS		45 50		MODRES	CR		58.20	27M0F8W			P	1
ALB	ALB29600	-7 00	22	19 80	41 30	0.68	0 60	146 00	R13TSS		46.34		MODRES	CL		58 64	27M0F8W			P	
AUS	AUS00600	152 00	22	136.60	-30 90	2.41	1 52	161.00	R13TSS		38.80		MODRES	CL		58.40	27M0F8W			P	
AUS	AUS00800	164 00	22	145 90	-21 70	3 62	1 63	136.00	R13TSS		36 73		MODRES	CL		58.83	27M0F8W			P	
BDI	BDI27000	11 00	22	29 90	-3 10	0.71	0 60	80 00	R13TSS		48 15		MODRES	CL		58.35	27M0F8W			P	
BGD	BGD22000	74 00	22	90 30	23 60	1 46	0 84	135 00	R13TSS		43 58		MODRES	CR		58.76	27M0F8W			P	
CBG	CBG29900	68 00	22	105 00	12 70	1 01	0 90	110.00	R13TSS		44 86		MODRES	CR		59.26	27M0F8W			P	
CHN	CHN15900	79 80	22	109 40	27 30	2 14	1 72	107.00	R13TSS		38.79		MODRES	CL		59.59	27M0F8W			P	
CHN	CHN16800	92 00	22	124 80	48 10	2 68	0 92	157 00	R13TSS		40.53		MODRES	CL		60.43	27M0F8W			P	
CHN	CHN18300	62 00	22	104 80	39 00	1 48	0 60	142 00	R13TSS		44.96		MODRES	CR		58.76	27M0F8W			P	
COG	COG23500	-13 00	22	14 60	-0 70	2 02	1 18	59 00	R13TSS		40 67		MODRES	CL		58.77	27M0F8W			P	
CTI	CTI23700	-30 00	22	-5 60	7 50	1 60	1 22	108 00	R13TSS		41 54		MODRES	CL		58.74	27M0F8W			P	7
ETH	ETH09200	23 00	22	39 55	8 58	2 48	1 92	128 32	R13TSS		37 67		MODRES	CL		58 87	27M0F8W			P	
F	REU09700	29 00	22	55 60	-19 20	1 56	0 78	96 00	R13TSS		43 59		MODRES	CR		58.89	27M0F8W		5	P	
F	REU09701	29 00	22	55 60	-19 20	1 56	0 78	96 00	R13TSS		43 59		MODRES	CR		58.89	27M0F8W		5	P	
F /EUT	E2WA7DA2	29 00	22	1 90	49 00	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		51 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	22	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		52 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	22	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CL		60 50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29 00	22	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29 00	22	-12 50	35 50	3 75	1 27	25 00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29 00	22	35 40	38 70	2 25	0 93	174 00	R13TSS		41 70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	22	8.00	49 70	2.84	1 45	26.00	R13TSS		39 30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
FIN	FIN10400	5 00	22	17 00	61 50	2.00	1 00	10 00	R13TSS		41 44		MODRES	CL		62.74	27M0F8W			P	
G	G UKDBS	-33 50	22	-3 50	53 60	1 84	0 72	142.00	R13TSS		43.20		MODRES	CR		60.10	27M0F8W	UKDBS-3		A	5, 7
GEO	GEO08400	23.00	22	43.35	42 27	1.11	0 60	161.21	R13TSS		46.23		MODRES	CR		58.93	27M0F8W			P	5
HNG	HNG10600	-1 00	22	19 50	47 20	0.92	0 60	176 00	R13TSS		47.03		MODRES	CR		59.03	27M0F8W			P	
IND	IND04101	56 00	22	78 40	16 00	2 08	1 38	35 00	R13TSS		39.87		MODRES	CL		58.77	27M0F8W			P	
IND	IND04200	68.00	22	79 30	27 70	2.14	1 16	147.00	R13TSS		40.50		MODRES	CL		58.80	27M0F8W			P	
INS	INS03000	80 20	22	112.30	-8 10	3.14	1 46	169 00	R13TSS		37.83		MODRES	CR		59.23	27M0F8W			P	
KGZ	KGZ07000	44 00	22	73.88	41.32	1.34	0 64	3.53	R13TSS		45.12		MODRES	CL		58.92	27M0F8W			P	
KRE	KRE28600	110 00	22	127 00	39.10	1 30	1.10	31.00	R13TSS		42.89		MODRES	CL		59.09	27M0F8W			P	
KWT	KWT11300	17.00	22	47.60	29.20	0.68	0 60	145.00	R13TSS		46.34		MODRES	CL		58.14	27M0F8W			P	
MLA	MLA22700	86 00	22	102.10	4.10	1.62	0 82	135.00	R13TSS		43.21		MODRES	CR		58.31	27M0F8W			P	
MTN	MTN22300	-37.00	22	-12.20	18.50	2.62	1.87	150 00	R13TSS		37.55		MODRES	CR		57.85	27M0F8W			P	
NIG	NIG11900	-19.00	22	7 80	9.40	2.16	2.02	45.00	R13TSS		38.05		MODRES	CR		58.95	27M0F8W			P	
PAK	PAK28100	38.00	22	65.20	27.90	1.52	1.42	28.00	R13TSS		41.11		MODRES	CR		58.11	27M0F8W			P	
PHL	PHL28500	98 00	22	121.30	11 10	3.46	1.76	99.00	R13TSS		36.60		MODRES	CL		58.70	27M0F8W			P	
SDN	SDN23100	-7.00	22	28.90	12.70	2.26	1.96	159 00	R13TSS		37.98		MODRES	CR		58.48	27M0F8W			P	
SUI	SUI14000	-19 00	22	8.20	46 60	0.98	0.70	171.00	R13TSS		46.08		MODRES	CL		59.08	27M0F8W			P	
SYR	SYR22900	11 00	22	38.30	34 90	1.04	0.90	7.00	R13TSS		44.73		MODRES	CR		58.23	27M0F8W			P	
TUN	TUN15000	-25.00	22	9.50	33.50	1.88	0.72	135 00	R13TSS		43.13		MODRES	CR		58.83	27M0F8W			P	
ZWE	ZWE13500	-1 00	22	29.60	-18.80	1.46	1.36	37.00	R13TSS		41.47		MODRES	CL		59.17	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
AGL	AGL29500	-13 00	23	16 50	-12 00	3 09	2 26	84 00	R13TSS		36 01		MODRES	CR		59 11	27M0F8W			P	
ARS	ARS34000	17 00	23	52 30	24 80	2 68	0 70	143 00	R13TSS		41.71		MODRES	CR		58.21	27M0F8W		71	P	
ARS	ARS34001	17 00	23	52 30	24 80	2 68	0 70	143 00	R13TSS		41.71		MODRES	CR		58.21	27M0F8W		71	P	
AUS	AUS00400	152 00	23	123 00	-24 20	3 06	2.17	102.00	R13TSS		36.22		MODRES	CR		58 22	27M0F8W		76	P	
AUS	AUS0040A	152 00	23	96 83	-12 19	0 60	0.60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS0040B	152 00	23	105 69	-10.45	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS0040C	152 00	23	110 52	-86 28	0 60	0 60	0.00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W		76	P	
AUS	AUS00700	164 00	23	145 20	-38 10	2 12	1.02	147.00	R13TSS		41.09		MODRES	CR		58.49	27M0F8W		77	P	
AUS	AUS0070A	164 00	23	158 94	-54 50	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58.88	27M0F8W		77	P	7
BHR	BHR2550A	17 00	23	50 50	26 10	0 60	0.60	0.00	R13TSS		48 88		MODRES	CR		55.78	27M0F8W		71	P	5
BRM	BRM29800	74 00	23	97 10	19 10	3 58	1 48	104.00	R13TSS		37.21		MODRES	CL		59.01	27M0F8W			P	
CHN	CHN15800	79 80	23	111 80	38 00	2 60	1 74	124 00	R13TSS		37.89		MODRES	CR		59.99	27M0F8W			P	
CVA	CVA08500	-37 00	23	10 80	41 50	2 00	0 60	138 00	R13TSS		43.66		MODRES	CR		58.56	27M0F8W			P	
CZE	CZE14400	17 00	23	15 50	49.79	0 92	0.60	174 55	R13TSS		47.02		MODRES	CL		58.92	27M0F8W			P	5
E	CNR13000	-30 00	23	-15 70	28 40	1 54	0 60	5 00	R13TSS		44.79		MODRES	CL		57.79	27M0F8W		17	P	
E	E 12900	-30 00	23	-3 10	39 90	2 10	1 14	154 00	R13TSS		40 66		MODRES	CL		58.66	27M0F8W		17	P	
E	HISPASA4	-30 00	23	-4 00	39 00					COP	39.60	5.50	R13RES	CL		57.60	27M0F8W	HISPASAT-1	17	AE	
E	HISPASA6	-30 00	23	-4 00	39 00					COP	39.60	5.50	R13RES	CL		57.60	27M0F8W	HISPASAT-1	17	AE	
ERI	ERI09200	23 00	23	39 41	14 98	1 67	0 95	145 48	R13TSS		42 44		MODRES	CR		58.94	27M0F8W			P	5
F /EUT	E2WA7DA1	29 00	23	1 90	49 00	1 82	1 82	0 00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	23	12 70	44 50	1 82	1 82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	23	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	23	17 50	40 40	2 54	1.07	168.00	R13TSS		40.70		R13RES	CR		53 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	23	-12 50	35 50	3 75	1 27	25.00	R13TSS		38 30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29 00	23	35 40	38 70	2 25	0.93	174 00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	23	8 00	49 70	2 84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
GHA	GHA10800	-25 00	23	-1 20	7 90	1 48	1 06	102.00	R13TSS		42.49		MODRES	CR		58.59	27M0F8W			P	
GNE	GNE30300	-19 00	23	10 30	1 50	0 68	0 60	10.00	R13TSS		48.34		MODRES	CL		58.84	27M0F8W			P	
HOL	HOL21300	-19 00	23	5 40	52 00	0.76	0 60	171.00	R13TSS		47.86		MODRES	CR		59.36	27M0F8W			P	
IND	IND03801	56 00	23	75 90	33 40	1 52	1 08	33.00	R13TSS		42.29		MODRES	CR		59.39	27M0F8W			P	
IND	IND04600	68 00	23	84 70	20 50	1 60	0 86	30.00	R13TSS		43.06		MODRES	CR		58.66	27M0F8W			P	
INS	INS03200	80 20	23	112 30	-0 30	2 66	2 32	109 00	R13TSS		36.54		MODRES	CL		59 14	27M0F8W			P	
ISL	ISL05000	5 00	23	-19 50	61 00	2 20	0 80	4 00	R13TSS		41.99		MODRES	CR		61 29	27M0F8W			P	2
JOR	JOR22400	11 00	23	35 80	31 40	0 84	0.78	114.00	R13TSS		46.28		MODRES	CL		58.08	27M0F8W			P	
KIR	KIR00002	176 00	23	-157 78	-0 33	2.40	0.64	110.62	R13TSS		42 60		MODRES	CL		58.90	27M0F8W			P	5
NOR	BIFROS21	-0 80	23	17 00	61.50					NO9	32.00	6.00	MODRES	CL		54.50	27M0FXF	BIFROST-2		A	
NPL	NPL1220A	50 00	23	83.70	28 30	1 72	0 60	163.00	R13TSS		44.31		MODRES	CL		59.61	27M0F8W			P	5
NZL	NIU05400	158 00	23	-169 80	-19 00	0 60	0 60	0.00	R13TSS		48 88		MODRES	CL		59.08	27M0F8W		2	P	
NZL	NIU05401	158.00	23	-169 80	-19 00	0.60	0 60	0.00	R13TSS		48.88		MODRES	CL		59.08	27M0F8W		2	P	
SDN	SDN23000	-7 00	23	29.20	7.50	2 34	1.12	148.00	R13TSS		40.26		MODRES	CL		59.36	27M0F8W			P	
SRL	SRL25900	-33 50	23	-11 80	8 60	0.78	0.68	114.00	R13TSS		47.20		MODRES	CR		58.40	27M0F8W			P	7
TKM	TKM06800	44 00	23	59 18	38 84	2 25	0 99	164 51	R13TSS		40.94		MODRES	CR		58.94	27M0F8W			P	5
TZA	TZA22500	11 00	23	34 60	-6 20	2 41	1.72	129.00	R13TSS		38.27		MODRES	CR		58.67	27M0F8W			P	
YUG	YUG14800	-7 00	23	20 50	43 98	0 91	0.60	145.16	R13TSS		47.07		MODRES	CR		58.87	27M0F8W			P	
ARM	ARM06400	23 00	24	44 99	39 95	0.73	0.60	148.17	R13TSS		48 02		MODRES	CR		58.92	27M0F8W			P	5
AUS	AUS00500	152 00	24	133 90	-18 40	2.82	1 74	105.00	R13TSS		37.53		MODRES	CL		59.43	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long.°	Boresight Lat.°	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap. Beam	Space Ant. Gain Co-pol.	X-pol.	Earth Antenna	Polarization Typ.	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
BGD	BGD22000	74 00	24	90 30	23 60	1 46	0 84	135 00	R13TSS		43 56		MODRES	CR		58 76	27M0F8W			P	
CAF	CAF25800	-13 00	24	21 00	6 30	2 25	1 66	31 00	R13TSS		38 67		MODRES	CL		59.27	27M0F8W			P	
CBG	CBG29900	68 00	24	105 00	12 70	1 01	0 90	110 00	R13TSS		44 66		MODRES	CR		59.26	27M0F8W			P	
CHN	CHN16600	92 00	24	121 10	41 70	1 52	0.78	154 00	R13TSS		43.71		MODRES	CL		59.51	27M0F8W			P	
CHN	CHN17700	79 80	24	111 80	30 80	1.42	0 82	160 00	R13TSS		43 79		MODRES	CL		59 69	27M0F8W			P	
CHN	CHN18800	62 00	24	101 50	25 10	1 86	1 08	132 00	R13TSS		41 42		MODRES	CL		60.02	27M0F8W			P	
CPV	CPV30100	-30 00	24	-24 00	16 00	0 86	0 70	144 00	R13TSS		46 65		MODRES	CL		57.15	27M0F8W			P	5, 7
DNK	DNK09000	5 00	24	17 00	61 50	2 00	1 00	10 00	R13TSS		41 44		MODRES	CL		62.54	27M0F8W			P	
F	F2_A2788	-7 00	24	2 60	45 90	2 50	0 98	160 00	R13TSS		41 60		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2728	-7 00	24	2 60	45 90	2 50	0 98	160 00	R13TSS		41.60		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2788	-7 00	24	2 60	45 90	2 50	0 98	160 00	R13TSS		41 60		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2728	-7 00	24	2 60	45 90	2.50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	158 00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2788	-7 00	24	2 60	45 90	2.50	0 98	160.00	RAD_TSS		41 60		MODRES	LE	158 00	56.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3328	-7 00	24	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41 60		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3388	-7 00	24	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41 60		MODRES	LE	158.00	56.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2728	-7 00	24	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	158 00	55.50	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2788	-7 00	24	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	158.00	55.50	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3328	-7 00	24	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	158.00	55.00	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3388	-7 00	24	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	158.00	55.00	33M0G9W	RADIOSAT-3	19	A	
F	MYT09800	29 00	24	45 10	-12 80	0 60	0 60	0 00	R13TSS		48 68		MODRES	CR		58.38	27M0F8W		7	P	
F	MYT09801	29 00	24	45 10	-12 80	0 60	0 60	0 00	R13TSS		48.68		MODRES	CR		58.38	27M0F8W		7	P	
F /EUT	E2WA7DA2	29 00	24	1 90	49 00	1 82	1 82	0 00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	24	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	24	8 90	61 30	3 06	0.71	9 00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29 00	24	17 50	40 40	2 54	1 07	168 00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29 00	24	-12 50	35 50	3.75	1 27	25 00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29 00	24	35.40	38 70	2.25	0 93	174 00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	24	8 00	49 70	2 84	1 45	26.00	R13TSS		39.30		R13RES	CL		51.30	27M0F9W	EUROPESAT-1	16	AE	8
I	I 08200	-19 00	24	12 30	41.30	2 38	0 98	137 00	R13TSS		40.77		MODRES	CL		59.07	27M0F8W			P	
IND	IND04100	56 00	24	78 40	16 00	2 08	1.38	35 00	R13TSS		39.87		MODRES	CL		58.87	27M0F8W			P	
IND	IND04201	68 00	24	79 30	27 70	2 14	1 16	147.00	R13TSS		40.50		MODRES	CL		58.90	27M0F8W			P	
INS	INS03000	80 20	24	112 30	-8.10	3.14	1 46	169 00	R13TSS		37.83		MODRES	CR		59.33	27M0F8W			P	
IRQ	IRQ25600	11.00	24	43.60	32.80	1.88	0.96	143.00	R13TSS		41.88		MODRES	CR		58.28	27M0F8W			P	1
KAZ	KAZ06600	44 00	24	64.72	46 40	4 31	1.70	172.22	R13TSS		35.79		MODRES	CL		58.89	27M0F8W			P	
LSO	LSO30500	5 00	24	27 80	-29.80	0 66	0 60	36.00	R13TSS		48.47		MODRES	CR		59.17	27M0F8W			P	
MLA	MLA22700	86.00	24	102 10	4 10	1.62	0 82	135 00	R13TSS		43.21		MODRES	CR		58.41	27M0F8W			P	
MTN	MTN28800	-37.00	24	-7 80	23.40	1.63	1.10	141.00	R13TSS		41.91		MODRES	CR		58.01	27M0F8W			P	
MWI	MWI30600	-1 00	24	34.10	-13.00	1.54	0 60	87.00	R13TSS		44.79		MODRES	CL		59.19	27M0F8W			P	
NGR	NGR11500	-25 00	24	8.30	16.80	2 54	2.08	44.00	R13TSS		37.22		MODRES	CL		59.52	27M0F8W			P	
NOR	BIFROS22	-0 80	24	17.00	61 50					NO9	32.00	6 00	MODRES	CR		54.50	27M0FXF	BIFROST-2		A	
NZL	TKL05800	158.00	24	-171.80	-8 90	0.70	0 60	35 00	R13TSS		48.21		MODRES	CR		58.91	27M0F8W		1	P	
NZL	TKL05801	158.00	24	-171.80	-8 90	0.70	0 60	35.00	R13TSS		48.21		MODRES	CR		58.91	27M0F8W		1	P	
OMA	OMA12300	17.00	24	55.60	21 00	1 88	1.02	100.00	R13TSS		41.62		MODRES	CL		58.32	27M0F8W			P	
PAK	PAK28200	38 00	24	68.50	25 80	1.32	0 62	133.00	R13TSS		45.32		MODRES	CR		58.42	27M0F8W			P	
PHL	PHL28500	98 00	24	121.30	11 10	3.46	1.76	99.00	R13TSS		36.60		MODRES	CL		58.80	27M0F8W			P	
SDN	SDN23200	-7.00	24	30 40	19 00	2.44	1.52	176.00	R13TSS		38.75		MODRES	CR		58.25	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight		Space Antenna Character.			Space Antenna	Shap. Beam	Space Ant. Gain		Earth Antenna	Polarization		EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
				Long °	Lat °	Major°	Minor°	Orient.°			Co-pol.	X-pol.		Typ.	Angle°						
AFS	AFS02100	5.00	25	24.50	-28.00	3.13	1.68	27.00	R13TSS		37.24		MODRES	CL		59.14	27M0F8W			P	
BEL	BEL01800	-19.00	25	4.60	50.60	0.82	0.60	167.00	R13TSS		47.53		MODRES	CR		59.13	27M0F8W			P	
BFA	BFA10700	-30.00	25	-1.50	12.20	1.45	1.14	29.00	R13TSS		42.26		MODRES	CR		58.96	27M0F8W			P	7
CYP	CYP08600	5.00	25	33.30	35.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		58.58	27M0F8W			P	
D	D2-21600	-1.00	25	12.60	52.10	0.83	0.63	172.00	R13TSS		47.26		MODRES	CL		59.26	27M0F8W			P	
DJI	DJI09900	23.00	25	42.50	11.60	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.58	27M0F8W			P	
F /EUT	E2WA7DA1	29.00	25	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29.00	25	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29.00	25	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29.00	25	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	25	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	25	35.40	38.70	2.25	0.93	174.00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29.00	25	8.00	49.70	2.84	1.45	26.00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
ISL	ISL04900	-33.50	25	-19.00	64.90	1.00	0.60	177.00	R13TSS		46.67		MODRES	CL		60.87	27M0F8W			P	7
ISR	ISR11000	-13.00	25	34.90	31.40	0.94	0.60	117.00	R13TSS		46.93		MODRES	CL		58.83	27M0F8W			P	
KEN	KEN24900	11.00	25	37.90	1.10	2.29	1.56	94.00	R13TSS		38.92		MODRES	CR		58.82	27M0F8W			P	
LVA	LVA06100	23.00	25	24.53	56.20	0.83	0.60	0.05	R13TSS		47.50		MODRES	CL		58.90	27M0F8W			P	5
MCO	MCO11600	-37.00	25	7.40	43.70	0.60	0.60	0.00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W			P	
MNG	MNG24800	74.00	25	102.20	46.60	3.60	1.13	169.00	R13TSS		38.35		MODRES	CR		59.05	27M0F8W			P	
MRC	MRC20900	-25.00	25	-9.00	29.20	2.72	1.47	43.00	R13TSS		38.43		MODRES	CL		58.33	27M0F8W			P	
NMB	NMB02500	-19.00	25	17.50	-21.60	2.66	1.90	48.00	R13TSS		37.41		MODRES	CL		59.71	27M0F8W			P	
POR	AZR13400	-30.00	25	-23.40	36.10	2.56	0.70	158.00	R13TSS		41.91		MODRES	CL		58.11	27M0F8W		21	P	7
POR	POR13300	-30.00	25	-8.00	39.60	0.92	0.60	112.00	R13TSS		47.03		MODRES	CL		58.43	27M0F8W		21	P	5, 7
RUS	RSTRSA11	36.00	25	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	CL		53.00	27M0F8W	RST-1	38	P	
RUS	RSTRSA21	56.00	25	65.00	63.00	2.20	2.20	0.00	R123FR		37.70		MODRES	CL		55.00	27M0F8W	RST-2	39	P	
RUS	RSTRSA31	86.00	25	97.00	62.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0F8W	RST-3	40	P	
RUS	RSTRSA51	140.00	25	158.00	56.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0F8W	RST-5	42	P	
RUS	RSTRSD11	36.00	25	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	CL		53.00	27M0G7W	RST-1	38	P	
RUS	RSTRSD21	56.00	25	65.00	63.00	2.20	2.20	0.00	R123FR		37.70		MODRES	CL		55.00	27M0G7W	RST-2	39	P	
RUS	RSTRSD31	86.00	25	97.00	62.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0G7W	RST-3	40	P	
RUS	RSTRSD51	140.00	25	158.00	56.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0G7W	RST-5	42	P	
RUS	RUS00400	110.00	25	127.76	57.81	3.59	1.65	165.75	R13TSS		36.73		MODRES	CL		58.93	27M0F8W			P	5, 7
SEN	SEN22201	-37.00	25	-14.40	13.80	1.46	1.04	139.00	R13TSS		42.83		MODRES	CL		58.73	27M0F8W			P	
UAE	UAE27400	17.00	25	53.60	24.20	0.98	0.80	162.00	R13TSS		45.50		MODRES	CR		58.20	27M0F8W			P	
ALB	ALB29600	-7.00	26	19.80	41.30	0.68	0.60	146.00	R13TSS		48.34		MODRES	CL		58.84	27M0F8W			P	
BDI	BDI27000	11.00	26	29.90	-3.10	0.71	0.60	80.00	R13TSS		48.15		MODRES	CL		58.35	27M0F8W			P	
COG	COG23500	-13.00	26	14.60	-0.70	2.02	1.18	59.00	R13TSS		40.67		MODRES	CL		58.77	27M0F8W			P	
CTI	CTI23700	-30.00	26	-5.60	7.50	1.60	1.22	108.00	R13TSS		41.54		MODRES	CL		58.74	27M0F8W			P	
ETH	ETH09200	23.00	26	39.55	8.58	2.48	1.92	128.32	R13TSS		37.67		MODRES	CL		58.67	27M0F8W			P	
F	REU09700	29.00	26	55.60	-19.20	1.56	0.78	96.00	R13TSS		43.59		MODRES	CR		58.99	27M0F8W		5	P	
F	REU09701	29.00	26	55.60	-19.20	1.56	0.78	96.00	R13TSS		43.59		MODRES	CR		58.99	27M0F8W		5	P	
F /EUT	E2WA7DA2	29.00	26	1.90	49.00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29.00	26	12.70	44.50	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29.00	26	8.90	61.30	3.06	0.71	9.00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29.00	26	17.50	40.40	2.54	1.07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29.00	26	-12.50	35.50	3.75	1.27	25.00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position*	Channel	Boresight Long *	Boresight Lat *	Space Antenna Character Major*	Minor*	Orient *	Space Antenna	Shap Beam	Space Ant Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ	Angle*	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
F /EUT	E2WA7DF2	29 00	26	35 40	38 70	2 25	0 93	174 00	R13TSS		41 70		R13RES	CL		54 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	26	8 00	49 70	2 84	1 45	26 00	R13TSS		39 30		R13RES	CL		51 30	27M0F9W	EUROPESAT-1	16	AE	8
FIN	FIN10400	5 00	26	17 00	61 50	2 00	1 00	10 00	R13TSS		41 44		MODRES	CL		62 54	27M0F8W			P	
G	G UKDBS	-33 50	26	-3 50	53 80	1 84	0 72	142 00	R13TSS		43 20		MODRES	CR		60.10	27M0F8W	UKDBS-3		A	5, 7
GEO	GEO06400	23 00	26	43 35	42 27	1 11	0 60	161 21	R13TSS		46 23		MODRES	CR		58 93	27M0F8W			P	5, 7
HNG	HNG10600	-1 00	26	19 50	47 20	0 92	0 60	176 00	R13TSS		47 03		MODRES	CR		59 03	27M0F8W			P	
KGZ	KGZ07000	44 00	26	73 88	41 32	1 34	0 64	3 53	R13TSS		45 12		MODRES	CL		58.92	27M0F8W			P	5, 7
KWT	KWT11300	17 00	26	47 60	29 20	0 68	0 60	145 00	R13TSS		48 34		MODRES	CL		58.14	27M0F8W			P	
MTN	MTN22300	-37 00	26	-12 20	18 50	2 62	1 87	150 00	R13TSS		37 55		MODRES	CR		57 95	27M0F8W			P	
NIG	NIG11900	-19 00	26	7 80	9 40	2 16	2 02	45 00	R13TSS		38 05		MODRES	CR		58.95	27M0F8W			P	
RUS	RSTRSA12	36 00	26	38 00	53 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		53.00	27M0F8W	RST-1	38	P	
RUS	RSTRSA22	56 00	26	65 00	63 00	2 20	2 20	0 00	R123FR		37 70		MODRES	CR		55.00	27M0F8W	RST-2	39	P	
RUS	RSTRSA32	86 00	26	97 00	62 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		55.00	27M0F8W	RST-3	40	P	
RUS	RSTRSA52	140 00	26	158 00	56 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		55.00	27M0F8W	RST-5	42	P	
RUS	RSTRSD12	36 00	26	38 00	53 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		53.00	27M0G7W	RST-1	38	P	
RUS	RSTRSD22	56 00	26	65 00	63 00	2 20	2 20	0 00	R123FR		37 70		MODRES	CR		55.00	27M0G7W	RST-2	39	P	
RUS	RSTRSD32	86 00	26	97 00	62 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		55.00	27M0G7W	RST-3	40	P	
RUS	RSTRSD52	140 00	26	158 00	56 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		55 00	27M0G7W	RST-5	42	P	
SDN	SDN23100	-7 00	26	28 90	12 70	2 26	1 96	159 00	R13TSS		37 98		MODRES	CR		58 48	27M0F8W			P	
SUI	SUI14000	-19 00	26	8 20	46 60	0 98	0 70	171 00	R13TSS		46 08		MODRES	CL		59.08	27M0F8W			P	
SYR	SYR22900	11 00	26	38 30	34 90	1 04	0 90	7 00	R13TSS		44.73		MODRES	CR		58.33	27M0F8W			P	
TUN	TUN15000	-25 00	26	9 50	33 50	1 88	0 72	135 00	R13TSS		43 13		MODRES	CR		58.93	27M0F8W			P	
ZWE	ZWE13500	-1 00	26	29 60	-18 80	1 46	1 38	37 00	R13TSS		41 47		MODRES	CL		59.17	27M0F8W			P	
AGL	AGL29500	-13 00	27	16 50	-12 00	3 09	2 26	84 00	R13TSS		36 01		MODRES	CR		59.21	27M0F8W			P	
BHR	BHR25500	17 00	27	50 50	26 10	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		55.78	27M0F8W			P	
CVA	CVA08300	-37 00	27	12 40	41 80	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		60.18	27M0F8W			P	
CZE	CZE14400	17 00	27	15 50	49 79	0 92	0 60	174 55	R13TSS		47 02		MODRES	CL		58.92	27M0F8W			P	5
DNK	DNK09100	5 00	27	-19 50	61 00	2 20	0 80	4 00	R13TSS		41.99		MODRES	CR		61.19	27M0F8W			P	2
E	CNR13000	-30 00	27	-15 70	28 40	1 54	0 60	5 00	R13TSS		44 79		MODRES	CL		57.79	27M0F8W		17	P	
E	E 12900	-30 00	27	-3 10	39 90	2 10	1 14	154 00	R13TSS		40 66		MODRES	CL		58.96	27M0F8W		17	P	
E	HISPASA4	-30 00	27	-4 00	39 00					COP	39 80	5.50	R13RES	CL		57.60	27M0F8W	HISPASAT-1	17	AE	
E	HISPASA6	-30 00	27	-4 00	39 00					COP	39.80	5 50	R13RES	CL		57.60	27M0F8W	HISPASAT-1	17	AE	
ERI	ERI09200	23 00	27	39 41	14 98	1 67	0 95	145 48	R13TSS		42 44		MODRES	CR		58.94	27M0F8W			P	5
F /EUT	E2WA7DA1	29 00	27	1 90	49 00	1 82	1 82	0 00	R13TSS		40 40		R13RES	CR		51 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	27	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	27	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	27	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	27	-12 50	35 50	3 75	1 27	25 00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29.00	27	35 40	38 70	2 25	0 93	174 00	R13TSS		41.70		R13RES	CR		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	27	8 00	49 70	2 84	1 45	26 00	R13TSS		39.30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
GHA	GHA10800	-25 00	27	-1 20	7 90	1 48	1 06	102 00	R13TSS		42.49		MODRES	CR		58.69	27M0F8W			P	
GNE	GNE30300	-19 00	27	10 30	1 50	0 68	0 60	10 00	R13TSS		48.34		MODRES	CL		58.84	27M0F8W			P	
HOL	HOL21300	-19 00	27	5 40	52 00	0.76	0 60	171 00	R13TSS		47 86		MODRES	CR		59.46	27M0F8W			P	
JOR	JOR22400	11 00	27	35 80	31 40	0 84	0 78	114 00	R13TSS		46.28		MODRES	CL		58.08	27M0F8W			P	
NOR	BIFROS21	-0 80	27	17.00	61 50					NO9	32.00	6.00	MODRES	CL		54.50	27M0FXF	BIFROST-2		A	
RUS	RSTRSA11	36 00	27	38.00	53 00	2 20	2 20	0.00	R13TSS		37.70		MODRES	CL		53.00	27M0F8W	RST-1	38	P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm. Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character. Major°	Minor°	Orient.°	Space Antenna	Shap Beam	Space Ant. Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Re-marks
RUS	RSTRSA21	56 00	27	65 00	63 00	2 20	2 20	0.00	R123FR		37.70		MODRES	CL		55.00	27M0F8W	RST-2	39	P	
RUS	RSTRSA31	86 00	27	97 00	62 00	2 20	2 20	0 00	R13TSS		37.70		MODRES	CL		55.00	27M0F8W	RST-3	40	P	
RUS	RSTRSA51	140 00	27	158 00	56 00	2 20	2 20	0 00	R13TSS		37.70		MODRES	CL		55.00	27M0F8W	RST-5	42	P	
RUS	RSTRSD11	36 00	27	38 00	53 00	2 20	2.20	0 00	R13TSS		37.70		MODRES	CL		53.00	27M0G7W	RST-1	38	P	
RUS	RSTRSD21	56 00	27	65 00	63 00	2 20	2.20	0.00	R123FR		37.70		MODRES	CL		55 00	27M0G7W	RST-2	39	P	
RUS	RSTRSD31	86 00	27	97 00	62 00	2 20	2.20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0G7W	RST-3	40	P	
RUS	RSTRSD51	140 00	27	158 00	56 00	2 20	2 20	0 00	R13TSS		37.70		MODRES	CL		55.00	27M0G7W	RST-5	42	P	
RUS	RUS00400	110 00	27	127 76	57 81	3 59	1.65	165 75	R13TSS		36.73		MODRES	CL		56 93	27M0F8W			P	5, 7
SDN	SDN23000	-7 00	27	29 20	7 50	2 34	1.12	148 00	R13TSS		40.26		MODRES	CL		59.46	27M0F8W			P	
SRL	SRL25900	-33 50	27	-11 80	8 60	0 76	0 66	114.00	R13TSS		47.20		MODRES	CR		58.50	27M0F8W			P	6
TKM	TKM06800	44 00	27	59 18	38 84	2 25	0 99	164 51	R13TSS		40.94		MODRES	CR		56 94	27M0F8W			P	5
TZA	TZA22500	11 00	27	34 60	-6 20	2 41	1.72	129 00	R13TSS		38.27		MODRES	CR		58.77	27M0F8W			P	
YUG	YUG14600	-7 00	27	20 50	43 98	0 91	0.60	145.18	R13TSS		47.07		MODRES	CR		58.87	27M0F8W			P	
ARM	ARM06400	23 00	28	44 99	39 95	0 73	0 60	148.17	R13TSS		48.02		MODRES	CR		58.92	27M0F8W			P	5, 7
CAF	CAF25600	-13 00	28	21 00	6 30	2 25	1.68	31.00	R13TSS		38.67		MODRES	CL		59.27	27M0F8W			P	
CPV	CPV30100	-30 00	28	-24 00	16 00	0 86	0 70	144 00	R13TSS		46.65		MODRES	CL		57.15	27M0F8W			P	
F	F2_A2788	-7 00	28	2 60	45 90	2 50	0 98	160.00	R13TSS		41.60		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2728	-7 00	28	2 60	45 90	2 50	0 98	160.00	R13TSS		41.60		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2788	-7 00	28	2 60	45 90	2 50	0 98	160 00	R13TSS		41.60		MODRES	CL		58.00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2728	-7 00	28	2 60	45 90	2 50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	158.00	58.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2788	-7 00	28	2 60	45 90	2 50	0.98	160 00	RAD_TSS		41 60		MODRES	LE	158 00	58.00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3328	-7 00	28	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	158.00	58 00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3388	-7 00	28	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	158.00	58.00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2728	-7 00	28	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	158.00	55.40	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2788	-7 00	28	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41.60		MODRES	LE	158.00	55.40	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3328	-7 00	28	2 60	45 90	2 50	0 98	160.00	RAD_TSS		41.60		MODRES	LE	158 00	54.80	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3388	-7 00	28	2 60	45.90	2 50	0.98	160.00	RAD_TSS		41.60		MODRES	LE	158.00	54.80	33M0G9W	RADIOSAT-3	19	A	
F	MYT09800	29 00	28	45 10	-12 80	0 60	0 60	0.00	R13TSS		48.88		MODRES	CR		58.48	27M0F8W		7	P	
F	MYT09801	29 00	28	45.10	-12 80	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		58.48	27M0F8W		7	P	
F /EUT	E2WA7DA2	29 00	28	1.90	49 00	1.82	1.82	0.00	R13TSS		40.40		R13RES	CL		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB2	29 00	28	12 70	44 50	1 82	1 82	0 00	R13TSS		40.40		R13RES	CL		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC2	29 00	28	8 90	61 30	3 06	0.71	9.00	R13TSS		41.50		R13RES	CL		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD2	29 00	28	17.50	40 40	2.54	1 07	168.00	R13TSS		40.70		R13RES	CL		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE2	29 00	28	-12 50	35 50	3.75	1 27	25 00	R13TSS		38.30		R13RES	CL		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF2	29.00	28	35.40	38.70	2 25	0.93	174.00	R13TSS		41.70		R13RES	CL		54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG2	29 00	28	8 00	49.70	2 84	1.45	26.00	R13TSS		39.30		R13RES	CL		51 30	27M0F9W	EUROPESAT-1	16	AE	8
I	I 08200	-19 00	28	12 30	41.30	2.38	0.98	137 00	R13TSS		40.77		MODRES	CL		59.17	27M0F8W			P	
IRQ	IRQ25600	11.00	28	43.60	32 80	1.88	0.96	143.00	R13TSS		41.88		MODRES	CR		58 38	27M0F8W			P	
KAZ	KAZ06600	44 00	28	64 72	46 40	4.31	1.70	172.22	R13TSS		35.79		MODRES	CL		58.89	27M0F8W			P	7
LSO	LSO30500	5.00	28	27 80	-29 80	0 66	0.60	36.00	R13TSS		48.47		MODRES	CR		59.17	27M0F8W			P	
MTN	MTN28600	-37 00	28	-7 80	23.40	1 63	1.10	141.00	R13TSS		41.91		MODRES	CR		58 01	27M0F8W			P	
MWI	MWI30800	-1.00	28	34.10	-13 00	1 54	0.60	87.00	R13TSS		44.79		MODRES	CL		59 29	27M0F8W			P	
NGR	NGR11500	-25 00	28	8.30	16.80	2 54	2.08	44.00	R13TSS		37.22		MODRES	CL		59 52	27M0F8W			P	
NOR	BIFROS22	-0.80	28	17 00	61.50					NO9	32.00	6.00	MODRES	CR		54.50	27M0FXF	BIFROST-2		A	
NOR	NOR12101	5 00	28	17 00	61 50	2 00	1.00	10.00	R13TSS		41.44		MODRES	CL		61.84	27M0F8W			P	
OMA	OMA12300	17.00	28	55 60	21 00	1 88	1 02	100 00	R13TSS		41.62		MODRES	CL		58 32	27M0F8W			P	

1	2	3	4	5		6			7	8	9		10	11		12	13	14	15	16	17
Adm Symb	Beam Identification	Orbital Position°	Channel	Boresight Long °	Boresight Lat °	Space Antenna Character Major°	Minor°	Orient °	Space Antenna	Shap. Beam	Space Ant. Gain Co-pol.	X-pol	Earth Antenna	Polarization Typ	Angle°	EIRP dBW	Designation of Emission	Satellite Identification	Group Code	Status	Remarks
RUS	RSTRSA12	36 00	28	38 00	53 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		53 00	27M0F8W	RST-1	38	P	
RUS	RSTRSA22	56 00	28	65 00	63 00	2 20	2 20	0 00	R123FR		37 70		MODRES	CR		55.00	27M0F8W	RST-2	39	P	
RUS	RSTRSA32	86 00	28	97 00	62 00	2 20	2 20	0 00	R13TSS		37.70		MODRES	CR		55.00	27M0F8W	RST-3	40	P	
RUS	RSTRSA52	140 00	28	158 00	56 00	2 20	2 20	0 00	R13TSS		37.70		MODRES	CR		55.00	27M0F8W	RST-5	42	P	
RUS	RSTRSD12	36 00	28	38 00	53 00	2 20	2 20	0 00	R13TSS		37 70		MODRES	CR		53.00	27M0G7W	RST-1	38	P	
RUS	RSTRSD22	56 00	28	65 00	63 00	2 20	2 20	0 00	R123FR		37.70		MODRES	CR		55.00	27M0G7W	RST-2	39	P	
RUS	RSTRSD32	86 00	28	97 00	62 00	2 20	2 20	0 00	R13TSS		37.70		MODRES	CR		55.00	27M0G7W	RST-3	40	P	
RUS	RSTRSD52	140 00	28	158 00	56 00	2 20	2 20	0.00	R13TSS		37 70		MODRES	CR		55.00	27M0G7W	RST-5	42	P	
SDN	SDN23200	-7 00	28	30 40	19 00	2 44	1.52	176 00	R13TSS		38 75		MODRES	CR		58.25	27M0F8W			P	
AFS	AFS02100	5 00	29	24 50	-28 00	3 13	1 68	27 00	R13TSS		37 24		MODRES	CL		59.24	27M0F8W			P	
BEL	BEL01800	-19 00	29	4 60	50 60	0 82	0.60	167.00	R13TSS		47.53		MODRES	CR		58.53	27M0F8W			P	
BFA	BFA10700	-30 00	29	-1 50	12 20	1 45	1 14	29 00	R13TSS		42 26		MODRES	CR		59 06	27M0F8W			P	
CYP	CYP08600	5 00	29	33 30	35 10	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		58 68	27M0F8W			P	
D	D2-21600	-1 00	29	12 60	52 10	0 83	0 83	172 00	R13TSS		47.26		MODRES	CL		59 26	27M0F8W			P	
DJI	DJI09900	23 00	29	42 50	11 60	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		57.58	27M0F8W			P	
F /EUT	E2WA7DA1	29 00	29	1 90	49 00	1 82	1 82	0 00	R13TSS		40.40		R13RES	CR		51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	29	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CR		52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	29	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CR		60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	29	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70		R13RES	CR		53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29.00	29	-12 50	35 50	3 75	1 27	25 00	R13TSS		38.30		R13RES	CR		57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29 00	29	35 40	38 70	2 25	0 93	174 00	R13TSS		41.70		R13RES	CR		54 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	29	8 00	49 70	2 84	1 45	26 00	R13TSS		39 30		R13RES	CR		51.30	27M0F9W	EUROPESAT-1	16	AE	8
ISL	ISL04900	-33 50	29	-19 00	64 90	1 00	0 60	177 00	R13TSS		46 67		MODRES	CL		60.87	27M0F8W			P	5, 6
ISR	ISR11000	-13 00	29	34 90	31 40	0 94	0 60	117 00	R13TSS		46.93		MODRES	CL		58 93	27M0F8W			P	
KEN	KEN24900	11 00	29	37 90	1 10	2 29	1 56	94 00	R13TSS		38 92		MODRES	CR		58 82	27M0F8W			P	
LVA	LVA06100	23 00	29	24 53	56 20	0 83	0 60	0 05	R13TSS		47.50		MODRES	CL		58.90	27M0F8W			P	5
MCO	MCO11600	-37 00	29	7 40	43 70	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR		57.48	27M0F8W			P	
MNG	MNG24800	74 00	29	102 20	46 60	3 60	1 13	169 00	R13TSS		38.35		MODRES	CR		59.15	27M0F8W			P	
MRC	MRC20900	-25 00	29	-9 00	29 20	2 72	1 47	43 00	R13TSS		38.43		MODRES	CL		58.43	27M0F8W			P	
NMB	NMB02500	-19 00	29	17 50	-21 60	2 66	1 90	48 00	R13TSS		37.41		MODRES	CL		59.81	27M0F8W			P	
POR	AZR13400	-30 00	29	-23 40	36 10	2 56	0 70	158 00	R13TSS		41 91		MODRES	CL		58.11	27M0F8W		21	P	
POR	POR13300	-30 00	29	-8 00	39 60	0 92	0.60	112 00	R13TSS		47.03		MODRES	CL		58 53	27M0F8W		21	P	5
RUS	RSTRSA11	36 00	29	38 00	53 00	2 20	2.20	0 00	R13TSS		37.70		MODRES	CL		53.00	27M0F8W	RST-1	38	P	
RUS	RSTRSA21	56.00	29	65 00	63 00	2 20	2 20	0.00	R123FR		37.70		MODRES	CL		55.00	27M0F8W	RST-2	39	P	
RUS	RSTRSA31	86 00	29	97.00	62 00	2 20	2 20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0F8W	RST-3	40	P	
RUS	RSTRSA51	140 00	29	158.00	56 00	2 20	2.20	0 00	R13TSS		37.70		MODRES	CL		55.00	27M0F8W	RST-5	42	P	
RUS	RSTRSD11	36 00	29	38 00	53.00	2 20	2 20	0.00	R13TSS		37.70		MODRES	CL		53.00	27M0G7W	RST-1	38	P	
RUS	RSTRSD21	56.00	29	65.00	63.00	2 20	2.20	0.00	R123FR		37.70		MODRES	CL		55.00	27M0G7W	RST-2	39	P	
RUS	RSTRSD31	86.00	29	97 00	62.00	2.20	2 20	0.00	R13TSS		37.70		MODRES	CL		55.00	27M0G7W	RST-3	40	P	
RUS	RSTRSD51	140.00	29	158 00	56 00	2.20	2 20	0 00	R13TSS		37.70		MODRES	CL		55.00	27M0G7W	RST-5	42	P	
SEN	SEN22200	-37 00	29	-14 40	13 80	1 46	1.04	139.00	R13TSS		42.63		MODRES	CL		58.73	27M0F8W			P	
UAE	UAE27400	17.00	29	53 60	24 20	0 98	0 80	162.00	R13TSS		45.50		MODRES	CR		58.30	27M0F8W			P	
ALB	ALB29600	-7 00	30	19 80	41 30	0 68	0 60	146 00	R13TSS		46.34		MODRES	CL		58.94	27M0F8W			P	
BDI	BDI27000	11 00	30	29 90	-3 10	0 71	0.60	80.00	R13TSS		48.15		MODRES	CL		58.45	27M0F8W			P	
COG	COG23500	-13.00	30	14.60	-0.70	2.02	1.18	59.00	R13TSS		40.67		MODRES	CL		58 87	27M0F8W			P	
CTI	CTI23700	-30.00	30	-5 60	7.50	1 60	1 22	108.00	R13TSS		41.54		MODRES	CL		58.84	27M0F8W			P	