

# Monitoring of Harmful Interference to the HF Broadcasting Service: III. Results of the June 1986 Coordinated Monitoring Period

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MONITORING OF HARMFUL INTERFERENCE TO THE  
HF BROADCASTING SERVICE: III. RESULTS OF THE  
JUNE 1986 COORDINATED MONITORING PERIOD

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This is the third in a series of reports describing the results of studies to determine the location of sources of harmful interference to the HF broadcasting service. Using observations recorded during the June 1986 monitoring program conducted under the auspices of the International Frequency Registration Board, and observations from monitoring stations coordinated by the Institute for Telecommunication Sciences, the report identifies frequently observed emitters of harmful interference and their locations, notes the extent of such interference with programs of leading international broadcast organizations, and examines the extent of such interference on programs not specifically targeted for harmful interference.

Key words: direction finding; harmful interference; HF broadcasting;  
HF jamming; HF propagation

## 1. INTRODUCTION

This is the third in a series of reports (Sowers et al., 1985 and 1986) describing the results of studies undertaken by the Institute for Telecommunication Sciences (ITS) to determine the location of emitters that cause harmful interference to the high frequency broadcast service. The studies have been made possible because of monitoring programs that have been organized under the auspices of the International Frequency Registration Board (IFRB) of the International Telecommunication Union (ITU). Resolution COM 5/1 of the First Session of the World Administrative Radio Conference on High Frequency Broadcasting (WARC-HFBC) in February 1984 directed the IFRB, with the cooperation of the administrations, "to organize monitoring programs in the bands allocated to the high frequency broadcasting service with a view to identifying stations causing interference" and to report the results to the Second Session of WARC-HFBC in 1987 (ITU, 1984). Four such monitoring

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programs have been organized, and the IFRB has distributed the results of the first three programs in Circular Letters 609 (IFRB, 1985a), 630 (IFRB, 1985b), and 657 (IFRB, 1986a). The results of the first two monitoring programs that were conducted in October 1984 and March/April 1985 were described in detail by Sowers et al. (1985). The results of the third monitoring program, conducted in January 1986, were described in Sowers et al. (1986). In this report we describe the results of the June 1986 monitoring program.

The reports of Sowers et al. (1985, 1986) show that there are more than 90 locations in the Soviet Union and Eastern bloc countries that are sources of harmful interference to the high frequency broadcast service of Western administrations. The locations described in these reports show a high degree of correlation between the three monitoring periods. In addition to the IFRB monitoring results, the Sowers et al. (1986) report described the results of two 5-day monitoring programs that were coordinated by ITS in order to obtain specific information on selected jammed broadcasts. The most significant feature of the analysis of data from these two 5-day monitoring periods was the fact that several jammers--up to 10 in a few cases--were operating on a single frequency supposedly directed against a specific broadcast. The results described in the reports were made possible through observations sent to ITS by the organizations in Australia, Brazil, Canada, Israel, Italy, the Federal Republic of Germany, Japan, The Netherlands, Norway, Republic of Korea, United Kingdom, and the United States.

In addition to providing the results of the June 1986 monitoring program, this report gives the results of a survey designed to look at the effect of jamming on broadcasts that were not expected to be jammed directly. This monitoring survey was termed indirect or "third party" monitoring because of the purported effect of jamming on third-party broadcasts. The Institute coordinated the collection of observations for the third-party monitoring by providing a separate report form to the cooperating administrations and to specific broadcast organizations that also contributed to this survey.

In the next section, the types of observations that have been obtained and the locations of the monitoring sites performing the observations are given. In addition to the types of data and location of the sites, the analysis procedures that have been employed are briefly touched upon in Section 2. Section 3 presents the results of the analysis conducted in this study. The locations obtained from the June 1986 monitoring are compared with the January

1986, March/April 1985, and October 1984 monitoring periods. Also in Section 3, we provide a discussion of the statistics of occurrence of interference to specific broadcasters and broadcast languages. Section 4 describes the results of the third-party monitoring survey. The results observed at a few stations in Europe, North Africa, and the Middle East are presented in some detail. Section 5 provides a summary of the results presented.

## 2. DATA COLLECTION AND ANALYSIS

The fourth IFRB monitoring program to collect data on harmful interference to the HF broadcasting service was conducted between June 9 and June 29, 1986 (IFRB, 1986b). As was the case in the previous three IFRB monitoring programs, a specific frequency schedule was adopted during the monitoring period and the participating administrations were requested to forward their data to the IFRB. Several administrations have continued to cooperate with ITS by also sending their data directly to the Institute. These data were used to locate the emitters giving rise to harmful interference. Observations used by ITS were collected from stations located within Australia, Brazil, Canada, Europe, Korea, and the United States. Data from the United States were collected from 13 Federal Communications Commission stations located in the continental United States, Puerto Rico, Hawaii, and Alaska. Participating administrations in Europe include Federal Republic of Germany, The Netherlands, Norway, Italy, and United Kingdom. A list of all participating stations and their locations is given in Table 1. Table 1 also lists the type of equipment in use at the monitoring stations.

The collection of data was coordinated among the monitoring stations by the use of a frequency schedule for all of the participating stations to follow. Table 2 is a copy of the schedule followed during the June 1986 monitoring period. Specific frequency bands allocated to the HF broadcasting service were assigned by the IFRB for monitoring in each of the 3 weeks observations were collected. From these bands specific frequencies were assigned to each of the half-hour time blocks in the day. These frequencies were assigned based on the results of ionospheric predictions that were used to maximize the likelihood that a large number of stations would be able to receive a particular frequency at the same time.

The stations listed in Table 1 that are equipped with direction-finding systems (i.e., Wullenweber arrays or Adcock systems) recorded the bearing of

Table 1. Station Locations and Antenna Types

STATION	CODE	LATITUDE	LONGITUDE	ANTENNA TYPE
ANCHORAGE, ALASKA	AN	61°09'43"N	149°59'55"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
BELFAST, MAINE	BE	44°26'42"N	69°04'58"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
DOUGLAS, ARIZONA	DS	31°30'02"N	109°39'12"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
FERNDALE, WASHINGTON	FE	48°57'21"N	122°33'12"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
FT. LAUDERDALE, FLORIDA	FL	26°06'08"N	80°16'42"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
GRAND ISLAND, NEBRASKA	GI	40°55'21"N	98°25'42"W	ROTATING ADCOCK TYPE
KINGSVILLE, TEXAS	KI	27°26'29"N	97°53'00"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
LAUREL, MARYLAND	LR	39°09'54"N	76°49'17"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
LIVERMORE, CALIFORNIA	LV	37°43'30"N	121°45'12"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
POWDER SPRINGS, GEORGIA	PS	33°51'44"N	84°43'26"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
SABANA SECA, PUERTO RICO	SS	18°27'23"N	66°13'37"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
HONOLULU, HAWAII	WP	21°22'45"N	157°59'54"W	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
FT. SMITH, ALBERTA, CANADA	FS	59°52'00"N	111°43'00"W	BANDWIDTH MEASUREMENT ONLY
LANGLEY, B.C., CANADA	LA	49°04'00"N	122°41'00"W	BANDWIDTH MEASUREMENT ONLY
ST. REMI, QUEBEC, CANADA	SR	45°17'00"N	73°39'00"W	BANDWIDTH MEASUREMENT ONLY
NEDHORST DEN BERG, NETH	NE	52°14'31"N	05°04'38"E	RHOMBIC ANTENNA
BOCKHAKEN, FEDERAL REPUBLIC OF GERMANY	BK	51°06'00"N	07°16'00"E	ADCOCK ANTENNA
BERLIN, FEDERAL REPUBLIC OF GERMANY	BL	52°34'00"N	13°18'00"E	ADCOCK ANTENNA



Table 1. Station Locations and Antenna Types  
(cont.)

STATION	CODE	LATITUDE	LONGITUDE	ANTENNA TYPE
ITZEHOE, FEDERAL REPUBLIC OF GERMANY	IT	53°54'00"N	09°31'00"E	ADCOCK ANTENNA
KONSTANZ, FEDERAL REPUBLIC OF GERMANY	KO	47°41'00"N	09°12'00"E	ADCOCK ANTENNA
KREFELD, FEDERAL REPUBLIC OF GERMANY	KR	51°26'00"N	06°28'00"E	ADCOCK ANTENNA
NORWAY	NO	58°48'48"N	05°40'09"E	ADCOCK ANTENNA
NORWAY, STATION 1	N1	66°10'48"N	12°33'33"E	ADCOCK ANTENNA
NORWAY, STATION 2	N2	69°16'34"N	16°08'40"E	ADCOCK ANTENNA
NORWAY, STATION 3	N3	71°04'34"N	24°06'58"E	ADCOCK ANTENNA
CROUSELY PARK, U.K.	U1	51°30'55"N	00°57'13"W	BANDWIDTH MEASUREMENTS ONLY
BALDOCK, U.K.	U2	52°00'00"N	00°08'00"E	FIXED MONOPOLES WITH GONIOMETER (WIDE APERTURE)
MONZA, ITALY	MN	45°36'00"N	09°16'00"E	BANDWIDTH MEASUREMENT ONLY
QUOIN RIDGE, AUSTRALIA	QU	42°44'00"S	147°20'00"E	SIGNAL STRENGTH ONLY
BRAZIL, STATION 1	B1	01°22'00"S	48°18'00"W	SIGNAL STRENGTH ONLY
BRAZIL, STATION 2	B2	15°45'00"S	47°47'00"W	SIGNAL STRENGTH ONLY
BRAZIL, STATION 3	B3	02°48'00"N	53°35'00"W	SIGNAL STRENGTH ONLY
BRAZIL, STATION 4	B4	25°05'00"S	50°35'00"W	SIGNAL STRENGTH ONLY
BRAZIL, STATION 5	B5	29°58'00"S	50°52'00"W	SIGNAL STRENGTH ONLY
BRAZIL, STATION 6	B6	22°42'00"S	42°48'00"W	SIGNAL STRENGTH ONLY
SEOUL, SOUTH KOREA	SO	37°30'00"N	128°54'00"E	LOG PERIODIC ANTENNA
TEL AVIV, ISRAEL	TV	32°04'00"N	34°47'00"	UNKNOWN

Table 2. Monitoring Schedule for June 1986

TIME	MON JUN 9	TUE JUN10	WED JUN11	THU JUN21	FRI JUN13	SAT JUN14	SUN JUN15
0000-0029	6015	11725	5955	6050	6015	6170	11780
0030-0059	5955	6050	11975	6170	6170	11725	11770
0100-0129	6025	6090	6105	6125	6150	6160	6180
0130-0159	11790	6170	11935	11925	11840	11780	11760
0200-0229	6195	6090	11740	11825	5955	11875	11885
0230-0259	11725	6160	6025	11725	6180	6160	11725
0300-0329	11875	11725	5955	11885	11725	5955	11875
0330-0359	11875	11875	11725	5955	11875	11725	5955
0400-0429	11855	5905	11855	11875	11855	11875	11855
0430-0459	5955	11855	11875	11855	5955	11855	11875
0500-0529	11885	11875	11875	6140	11885	11885	6060
0530-0559	6140	6160	11935	6170	11945	11895	11970
0600-0629	11815	11855	11970	11885	11725	6105	6115
0630-0659	11885	6105	11725	5985	6115	11895	11970
0700-0729	11970	11930	6105	11965	11725	5970	11815
0730-0759	11725	5970	11965	6105	11895	11930	5985
0800-0829	5985	11965	11725	11930	5970	11885	11865
0830-0859	11930	11725	11865	11895	11965	11970	11875
0900-0929	6105	11725	5970	11930	5985	11965	11970
0930-0959	11875	11965	11830	6105	11850	5985	11930
1000-1029	5970	11850	11680	11830	5970	11770	11895
1030-1059	11895	5970	6020	5995	11770	5970	11875
1100-1129	5955	11800	5970	11805	6020	11705	5970
1130-1159	11885	11770	11705	5970	11805	11725	11800
1200-1229	11780	5985	11835	11705	11970	11805	11780
1230-1259	6105	11705	11805	11725	11770	5970	11895
1300-1329	11680	11845	11705	11720	11725	11805	6105
1330-1359	11720	11840	11770	6010	11705	11725	11805
1400-1429	11680	11875	11720	11760	11865	11805	11725
1430-1459	11945	11835	11925	11700	11680	11760	11805
1500-1529	11960	11865	11720	11855	11945	11845	11700
1530-1559	6105	11815	11680	11905	6010	11780	6050
1600-1629	11845	6105	11905	11780	11915	6125	11865
1630-1659	11945	11905	6105	6180	11805	11915	6120
1700-1729	11725	11945	11915	6105	11780	11925	11960
1730-1759	11915	11725	11905	6030	6105	11680	6050
1800-1829	11710	11805	11725	11680	11845	6105	6085
1830-1859	11935	11855	11750	11725	6120	11925	6105
1900-1929	6170	11935	11945	11925	11725	11790	11865
1930-1959	5990	11915	11935	11680	6085	11725	11935
2000-2029	6115	11805	6030	11935	6115	6085	11725
2030-2059	11970	6115	11710	11970	11935	6115	6160
2100-2129	6125	11970	6115	6195	11970	11935	11970
2130-2159	11710	6125	11970	6115	6060	11970	6115
2200-2229	6095	11935	6140	11965	11845	6160	6050
2230-2259	6140	6060	6170	6150	5955	11855	11845
2300-2329	6170	5985	5955	11945	6115	11935	11825
2330-2359	11825	6050	11945	11895	5985	6105	11770

\* Time is in universal time; frequency is in kilohertz

Table 2. Monitoring Schedule for June 1986  
(cont.)

TIME	MON JUN16	TUE JUN17	WED JUN18	THU JUN19	FRI JUN20	SAT JUN21	SUN JUN22
0000-0029	7155	7105	7165	7180	15130	15355	15510
0030-0059	7220	7190	15130	15445	7220	7225	7295
0100-0129	7120	15445	7220	7240	15370	7270	15355
0130-0159	15105	7235	7270	15380	7105	7240	7220
0200-0229	7105	15355	7120	7240	7220	15105	15130
0230-0259	7240	7220	15510	15445	15105	7270	7295
0300-0329	7105	15405	7130	7285	15275	7140	7240
0330-0359	7285	7130	15275	7105	7230	15405	7325
0400-0429	15355	7155	15355	15235	7155	15355	7130
0430-0459	7285	15355	7155	15355	7260	7155	7140
0500-0529	21455	7140	7260	7155	15235	15130	7155
0530-0559	15165	15130	7130	15170	7140	7320	15130
0600-0629	7220	15340	15170	15370	15215	15355	7165
0630-0659	7165	15170	7165	15130	7165	15170	15130
0700-0729	15325	7165	15410	7165	15170	7160	15430
0730-0759	15130	21625	15130	15290	15130	15115	7190
0800-0829	15355	15185	15340	15205	15410	21650	21625
0830-0859	21650	7190	15185	15215	15325	15185	7220
0900-0929	7220	15325	7115	15430	15370	15130	21455
0930-0959	15340	7190	15410	15290	21625	7220	15330
1000-1029	21530	15390	15380	7115	15170	15330	7220
1030-1059	7130	15145	7190	21665	7150	15380	21735
1100-1129	15145	7130	15340	7150	15120	21570	15280
1130-1159	21720	15225	15340	21720	21745	15215	21720
1200-1229	15270	21720	15205	15255	21720	7220	15435
1230-1259	15235	15120	21720	21520	7190	21720	15355
1300-1329	7140	15145	15180	15215	21540	15280	15380
1330-1359	15340	7140	7180	15340	15180	7245	15270
1400-1429	7140	15340	15180	7245	15340	15390	15340
1430-1459	15340	7145	15340	15540	7245	15335	15225
1500-1529	21455	15115	21455	7255	21455	15115	15115
1530-1559	15115	21455	7255	21455	15115	21455	15405
1600-1629	15350	7180	15120	15115	15405	15245	15340
1630-1659	15380	15355	7255	7160	15160	15405	15245
1700-1729	7130	15380	15355	7270	15380	15390	15405
1730-1759	21650	15180	15380	15405	15355	7255	15340
1800-1829	15355	15340	7130	15380	15235	15355	15380
1830-1859	15340	15355	7255	15355	7295	15180	15355
1900-1929	7220	15340	7220	15160	15380	15340	15340
1930-1959	15340	7220	15340	7270	15225	7220	7220
2000-2029	7120	7220	7255	15340	7220	15340	7105
2030-2059	7220	7270	15340	15355	7255	7240	7155
2100-2129	7200	15355	7220	7180	15235	15290	7240
2130-2159	7245	7105	7180	15340	15170	15355	7220
2200-2229	15145	7245	15115	7220	7130	7220	7265
2230-2259	7190	7130	7245	7220	7280	7220	15130
2300-2329	7255	7165	7105	7245	7220	7255	15255
2330-2359	15355	7135	7140	7215	7245	15205	15115

\* Time is in universal time; frequency is in kilohertz

Table 2. Monitoring Schedule for June 1986  
(cont.)

TIME	MON JUN23	TUE JUN24	WED JUN25	THU JUN26	FRI JUN27	SAT JUN28	SUN JUN29
0000-0029	9725	9635	9530	9705	9505	9750	9660
0030-0059	9520	9705	9725	9625	9725	9680	9705
0100-0129	9570	9770	9715	9635	9760	9725	9595
0130-0159	9760	9715	9635	9540	9770	9960	9750
0200-0229	9505	9555	9530	9600	9520	9625	9725
0230-0259	9760	9750	9540	9705	9750	9660	9750
0300-0329	9555	9690	17810	9615	17760	9650	9680
0330-0359	9705	9555	9590	17740	9615	9555	9565
0400-0429	9520	9660	9555	9760	9625	9825	9530
0430-0459	9760	9590	9660	9555	9650	9705	9825
0500-0529	9825	9520	9530	9060	9520	9590	9725
0530-0559	11750	9760	9590	9825	9060	17750	17895
0600-0629	17725	17750	17895	17725	9705	9760	17725
0630-0659	17895	17770	17750	17760	17735	17835	9760
0700-0729	17805	17895	17760	17805	17725	17740	17865
0730-0759	17740	17805	17865	17750	17805	17835	17735
0800-0829	17835	17780	9520	17750	17815	17875	17825
0830-0859	17805	9705	17740	17865	17750	17770	9695
0900-0929	9520	17835	17895	9520	17750	9705	17740
0930-0959	17805	9725	9680	17895	9705	17750	17760
1000-1029	9680	17750	17835	9610	9520	17855	9705
1030-1059	17735	9725	9705	17725	17805	9695	17750
1100-1129	17865	9705	17855	17835	9725	9520	9695
1130-1159	17750	17895	9695	9705	9500	17750	9725
1200-1229	17770	17750	17780	17695	17835	9705	9520
1230-1259	17895	9705	9725	17750	9695	17865	17725
1300-1329	9625	17770	17805	17750	9725	9705	9695
1330-1359	17735	9605	9735	9625	17715	17835	9705
1400-1429	9520	9735	17770	9670	9625	9565	9670
1430-1459	9725	9660	9530	17770	9505	17715	17835
1500-1529	9705	9595	9520	9505	17865	9725	9695
1530-1559	17715	9520	9715	17795	17770	9625	9530
1600-1629	9635	9705	9750	9585	9735	9725	9645
1630-1659	17875	17795	9715	9750	9530	17770	9690
1700-1729	17750	9715	9520	17760	9705	9635	17770
1730-1759	9660	17760	17745	9530	17750	9585	9770
1800-1829	17795	9715	17750	17945	9565	17760	17855
1830-1859	17770	17695	9705	9520	17855	17725	9695
1900-1929	9740	9530	17695	17855	17835	9505	17735
1930-1959	9770	17760	9125	9705	17885	9520	17750
2000-2029	17855	17865	17695	17770	9705	17895	17805
2030-2059	9605	9125	9750	9635	17725	9585	9625
2100-2129	9705	9735	9605	9505	17805	9705	17760
2130-2159	17735	9530	9695	9525	9520	9735	9565
2200-2229	9655	9680	9725	9665	9610	9660	9725
2230-2259	9725	9555	9670	9530	9565	17845	9680
2300-2329	9680	9530	9725	9595	9760	9680	9750
2330-2359	9520	9680	9680	9625	9725	9555	9505

\* Time is in universal time; frequency is in kilohertz

the signals that caused harmful interference to the broadcast services. In addition to the bearing information, the monitoring stations collected information on the signal strength, bandwidth, time of day, and frequency of the signal causing harmful interference. The two-character Morse code identifier characteristic of jamming of Western broadcasts by Eastern bloc countries was also recorded for those signals so identified. The sample data set shown in Table 3 illustrates a subset of the information that was recorded.

Having gathered data for four separate monitoring periods has resulted in more than 95,000 observations being sent to ITS by the participating stations. Approximately 28,000 of these observations were recorded during the June 1986 monitoring with more than 19,000 of these containing bearing information. The increasing numbers of observations available to ITS as a result of increasing number of monitoring periods has made it possible to isolate the locations of the sources of harmful interference with greater accuracy.

Through the use of geolocation procedures developed at ITS (Sowers et al., 1985 and 1986), sources of harmful interference have been located in Bulgaria, China, Czechoslovakia, Iraq, Poland, and the Soviet Union. The geolocation procedures rely on the use of a computer algorithm FFIX (Sowers et al., 1985), which utilizes the bearings from three or more stations to locate the emitter at a point termed the best point estimate or BPE. Because the data are statistical in nature, an error ellipse (confidence ellipse) is associated with the BPE.

As described in the report by Sowers et al. (1985), the geolocation process produces an initial estimate of the locations for each of the individual markers observed during a single time block. Results of this type for the June 1986 period are found in Appendix A of this report. Combining the results from Appendix A in the manner described in the report by Sowers et al. (1985) yields more accurate estimates of the location for the emitters. The more accurate estimation of the emitter location is called the composite location because observations from several time blocks and frequencies are combined or composited to locate the emitters. The composite locations for the June 1986 data are found in Appendix B of this report.

Table 3. Example of Monitoring Data Obtained During the June 1986 Monitoring Period

Monitoring Station	Date	Time (UTC)	Frequency (kHz)	Class of Emission	Identification	Class of Station	Signal Strength	Bearing	Class of Bearing
BL	060986	0016	5955	AXX	BG	HARM-INF	SS	068	B
KR	060986	0016	5955	AXX	BG	HARM-INF	SS	085	C
U2	060986	0016	5955	AXX	MP	HARM-INF	40	092	B
U2	060986	0031	5955	AXX	MP	HARM-INF	40	092	B
BE	060986	0049	5955	AXX	MP	HARM-INF	S2	050	D
CA	060986	0049	5955	AXX	MP	HARM-INF	S3	058	D
FL	060986	0049	5955	AXX	MP	HARM-INF	S2	037	D
N2	060986	0045	5955	AXX	NI	HARM-INF	SS	146	C
N2	060986	0036	5955	AXX	RQ	HARM-INF	SS	145	C
N0	060986	0031	5955	AXX	WA	HARM-INF	SS	090	C
N0	060986	0056	5960	AXX	WD	HARM-INF	SS	106	C
N0	060986	0015	6015	AXX	PB	HARM-INF	SS	096	C
BL	060986	0016	6050	AXX	BG	HARM-INF	SS	068	A
KR	060986	0016	6050	AXX	BG	HARM-INF	SS	085	C
BL	060986	0016	6050	AXX	TU	HARM-INF	SS	068	A
KO	060986	0016	6050	AXX	TU	HARM-INF	SS	053	A
KR	060986	0016	6050	AXX	TU	HARM-INF	SS	066	A
U2	060986	0046	6050	AXX	TU	HARM-INF	30	068	B
U2	060986	0101	6025	AXX	BG	HARM-INF	35	063	A
N0	060986	0101	6025	AXX	BG	HARM-INF	SS	083	C
N2	060986	0112	6025	AXX	BG	HARM-INF	SS	141	C
U2	060986	0101	6025	AXX	KD	HARM-INF	35	065	B
N0	060986	0106	6025	AXX	KD	HARM-INF	SS	090	C
U2	060986	0101	6025	AXX	TU	HARM-INF	35	065	C
N2	060986	0116	6045	AXX	NI	HARM-INF	SS	146	C

### 3. ANALYSIS RESULTS

#### 3.1 Locations of Emitters

The locations of the emitters of harmful interference that were observed during the June monitoring period are illustrated in Figures 1 and 2. In these figures the alphanumeric marker associated with the Morse code jamming observations is centered on the best point estimate of the emitter. Most of these emitters are located in the Soviet Union and Eastern bloc countries. The majority of the markers tend to group in the western portion of the Soviet Union around major cities such as Moscow, Leningrad, and Kiev. There are also a few markers to the south near the city of Tashkent. In addition to the Soviet markers, there are groupings of markers that appear to be located in Czechoslovakia (D3, R9, U7, B1) and Bulgaria (K7, R6, G3). Another group of markers is located in the eastern portion of the Soviet Union near the cities of Khabarovsk and Komsomolsk.

Also contained within the data set are observations that do not have Morse code identifiers. These signals are designated by a \*\* where the normal marker would be indicated. During this monitoring period, the FCC was able to recognize distinguishing characteristics among a few of the so-called unidentified emissions and mark them with a numeric code of their own. In particular the FCC was able to identify characteristics of jamming transmissions that originated in Iraq and China. The locations of these transmitters are also illustrated in Figures 1 and 2 and are marked with a \*\*.

The markers shown in Figures 1 and 2 are associated with confidence ellipses which give an indication of the amount of uncertainty in the BPE. The confidence ellipses are given in Appendixes A and B. For purposes of clarity, these confidence ellipses are not shown on Figures 1 and 2. To visualize the size of the ellipses, Figure 3 shows a few of the markers from Figure 1 with the associated 90-percent confidence region. The markers chosen for Figures 1 and 2 were limited to those locations from Appendix B that were contained within a metric (800 by 400 nmi) confidence region.

Table 4 provides a listing of the locations of the emitters of harmful interference arranged by marker for the October 1984, March/April 1985, January 1986, and June 1986 monitoring periods. This table lists the same subset of markers displayed in Figures 1 and 2. The country in which the emitter is contained is indicated by the appropriate ITU country code. When

Table 4. Location of Emitters of Harmful Interference

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
UN-BUL	43.6 N, 24.0 E	BUL						
UN-ARM	56.6 N, 32.5 E	URS						
UN-UKR	50.7 N, 20.4 E	POL						
1D			50.2 N, 31.3 E	URS	52.9 N, 29.8 E	URS	51.2 N, 28.8 E	URS
1G	55.1 N, 20.0 E	URS	58.4 N, 27.7 E	URS	59.7 N, 30.6 E	URS	59.6 N, 31.5 E	URS
4F	47.2 N, 65.4 E	URS	43.6 N, 51.0 E	URS	41.5 N, 66.8 E	URS	41.2 N, 67.5 E	URS
4N	54.4 N, 26.5 E	URS	55.9 N, 55.5 E	URS	57.1 N, 57.9 E	URS	56.6 N, 55.0 E	URS
7K	52.4 N, 27.4 E	URS	43.9 N, 67.9 E	URS	43.5 N, 66.5 E	URS	43.2 N, 66.8 E	URS
8L							53.3 N, 49.6 E	URS
A5							43.8 N, 23.5 E	BUL
AD	46.1 N, 36.5 E	URS	44.8 N, 46.8 E	URS			41.5 N, 48.9 E	URS
AG	57.2 N, 48.4 E	URS	53.4 N, 69.2 E	URS	56.2 N, 58.1 E			
AN	54.2 N, 28.1 E	URS					55.6 N, 39.0 E	URS
AR			54.9 N, 40.9 E	URS			54.7 N, 41.3 E	URS
AS			47.4 N, 54.1 E	URS			51.5 N, 38.4 E	URS
AW			64.9 N, 175.5 E	URS				



Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
BI	49.3 N, 19.3 E	POL	49.7 N, 19.5 E	POL	50.5 N, 18.4 E	POL	50.5 N, 15.5 E	TCH
BA							47.6 N, 136.5 E	URS
BD	52.1 N, 17.7 E	POL	49.7 N, 24.9 E	POL	50.5 N, 28.3 E	POL	54.4 N, 26.7 E	URS
BG	54.6 N 40.4 E	URS	55.9 N, 38.5 E	URS	55.8 N, 36.4 E	URS	55.6 N 39.0 E	URS
BI							54.7 N, 19.0 E	POL
BL			54.5 N, 28.8 E	URS			55.1 N, 26.7 E	URS
BN							54.5 N 58.4 E	URS
BQ	50.4 N, 19.1 E	POL	45.3 N, 43.7 E	URS	48.2 N, 36.7 E	URS		
BR	52.3 N, 16.4 E	POL						
BU			49.8 N, 37.9 E	URS	50.9 N, 34.4 E	URS	50.1 N, 35.7 E	URS
CB	53.6 N, 35.9 E	URS	50.7 N, 51.5 E	URS	49.6 N, 54.6 E	URS	53.4 N, 46.0 E	URS
CG							55.5 N, 76.6 E	URS
D3	49.0 N, 16.2 E	TCH	49.6 N, 17.0 E	TCH	50.5 N, 15.8 E	TCH	50.4 N, 14.7 E	TCH
DA	50.6 N, 24.5 E	URS					54.8 N, 65.9 E	URS
DB					48.4 N, 78.6 E	URS	58.9 N, 68.5 E	URS
DG	55.5 N, 27.2 E	URS						
DR	54.3 N, 19.4 E	URS	54.8 N, 20.2 E	URS	54.9 N, 21.0 E	URS	55.3 N, 23.4 E	URS
DU			57.9 N, 25.9 E	URS	58.8 N, 31.4 E	URS	59.0 N, 31.6 E	URS

Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
FA	62.2 N, 177.2 E	URS	49.6 N, 134.8 E	URS			47.5 N, 134.9 E	URS
FG	52.2 N, 17.6 E	POL	49.8 N, 36.9 E	URS	49.1 N, 33.1 E	URS		
FL	50.3 N, 29.7 E	URS	49.4 N, 37.7 E	URS	50.6 N, 35.6 E	URS	48.9 N, 37.2 E	URS
FM							53.0 N, 143.4 E	URS
FR							43.6 N, 63.7 E	URS
FU	53.0 N, 23.9 E	URS	54.0 N, 17.7 E	POL	47.3 N, 67.0 E	URS	44.3 N, 73.4 E	URS
G1	48.8 N, 23.5 E	URS						
G3			43.3 N, 22.7 E	BUL			42.8 N, 25.5 E	BUL
GI	55.3 N, 38.8 E	URS	56.4 N, 37.8 E	URS	56.5 N, 36.6 E	URS	56.6 N, 37.8 E	URS
GJ	55.5 N, 36.2 E	URS						
GM	49.9 N, 137.5 E	URS	49.8 N, 134.3 E	URS			49.2 N, 134.5 E	URS
GR	50.6 N, 133.3 E	URS	47.7 N, 134.7 E 50.0 N, 138.5 E	URS URS	50.2 N, 137.1 E	URS	50.7 N, 136.9 E	URS
GS	54.4 N, 40.4 E	URS						
HM			52.8 N, 52.2 E	URS			56.2 N, 37.1 E	URS
HP	50.1 N, 17.0 E	TCH	48.0 N, 35.5 E	URS	45.4 N, 37.2 E	URS	54.5 N, 23.6 E	URS
IB							55.1 N, 54.8 E	URS
IG	48.5 N, 135.5 E	URS	50.0 N, 136.5 E	URS	50.1 N, 136.9 E	URS	50.3 N, 136.8 E	URS

Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country- Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
IN	49.3 N, 30.3 E	URS						
IR			58.0 N, 33.3 E	URS			53.5 N, 48.5 E	URS
K7			42.8 N, 25.1 E	BUL	43.5 N, 24.2 E	BUL	43.0 N, 23.9 E	BUL
KB	51.9 N, 133.5 E 47.8 N	URS	48.5 N 135.2E	URS	48.6 N 134.8 E	URS	48.7 N, 134.8 E	URS
KD	54.7 N, 24.9 E	URS	56.5 N, 35.9 E	URS	56.2 N, 34.3 E	URS	56.0 N, 35.7 E	URS
KF	50.3 N, 16.0 E	TCH						
KM	46.2 N, 39.4 E	URS					41.2 N, 43.8 E	URS
KU							53.5 N, 145.5 E	URS
KV	58.2 N, 25.8 E	URS	56.2 N, 30.9 E	URS	57.8 N, 27.9 E	URS	58.0 N, 32.4 E	URS
L4							43.2 N, 26.0 E	BUL
L8							47.9 N, 18.0 E	TCH
LG					52.6 N, 20.9 E	POL	50.5 N, 22.9 E	POL
LK	53.3 N, 19.6 E	POL	54.8 N, 31.5 E	URS	46.4 N, 67.1 E	URS	50.1 N, 60.8 E	URS
LM							49.0 N, 26.3 E	URS
M3							50.0 N, 16.1 E	URS
M7							42.8 N, 23.5 E	BUL
MA	53.2 N, 18.7 E	POL						
MF	52.6 N, 13.3 E	DDR	55.6 N, 29.3 E	URS	53.4 N, 48.5 E	URS	54.5 N, 40.6 E	URS

Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
MG					46.9 N, 34.2 E	URS	45.2 N, 36.2 E	URS
MP	51.6 N, 15.5 E	POL	50.9 N, 16.8 E	POL	52.4 N, 24.9 E	URS		
MS	49.8 N, 16.0 E	TCH						
MU			47.5 N, 56.1 E	URS	45.6 N, 63.9 E	URS	44.7 N, 63.9 E	URS
MX	53.3 N, 15.5 E	POL					55.0 N, 22.0 E	URS
NI					59.9 N, 31.7 E	URS	59.5 N, 31.4 E	URS
NS	47.6 N, 27.9 E	URS	47.9 N, 27.5 E	URS			46.6 N, 32.5 E	URS
PA			54.8 N, 16.4 E	POL				
PB	48.1 N, 26.0 E	URS	49.7 N, 25.5 E	URS	49.5 N, 26.9 E	URS	47.8 N, 29.8 E	URS
PF					60.6 N, 162.5 E	URS	59.7 N, 152.8 E	URS
PK	56.8 N, 41.0 E	URS					57.7 N, 47.3 E	URS
PL	52.0 N, 18.8 E	POL	51.4 N, 35.9 E	URS			49.6 N, 37.6 E	URS
R6			43.0 N, 26.4 E	BUL	46.4 N, 22.9 E	BUL/ROU	42.4 N, 25.1 E	BUL
R9	51.1 N, 14.9 E	DDR	50.3 N, 16.7 E	POL	49.6 N, 16.9 E	TCH	48.4 N, 19.9 E	TCH
RB	55.4 N, 23.6 E	URS	54.8 N, 21.5 E	URS	54.6 N, 21.3 E	POL	54.9 N, 20.4 E	URS
RQ							59.6 N, 30.5 E	URS
RT	54.7 N, 19.0 E	URS	56.5 N, 27.7 E	URS	57.1 N, 24.4 E	URS	56.9 N, 25.3 E	URS
S5			49.4 N, 13.1 E	TCH			50.3 N, 12.9 E	TCH

Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
S7							53.2 N, 14.9 E	POL
SB					68.2 N, 34.1 E	URS		
SF					55.9 N, 59.3 E	URS	56.6 N, 56.0 E	URS
SM					51.0 N, 38.9 E	URS	49.9 N, 41.8 E	URS
ST	55.6 N, 26.9 E	URS	57.3 N, 24.2 E	URS			58.5 N, 27.7 E	URS
SU	50.2 N, 38.9 E	URS					48.1 N, 50.7 E	URS
TK	62.2 N, 24.8 E	URS	40.9 N, 67.6 E	URS	41.9 N, 64.5 E	URS	41.5 N, 65.3 E	URS
TR	51.0 N, 19.2 E	POL	46.0 N, 33.4 E	URS	52.4 N, 28.7 E	URS	47.4 N, 31.6 E	URS
TU	54.9 N, 36.6 E	URS	55.7 N, 36.1 E	URS	55.6 N, 35.1 E	URS	55.7 N, 37.4 E	URS
U7	50.0 N, 15.7 E	TCH	49.5 N, 16.1 E	TCH	50.2 N, 16.2 E	TCH	50.0 N, 16.0 E	TCH
UA	49.1 N, 136.6 E	URS	47.1 N, 134.6 E	URS	49.2 N, 135.8 E	URS		
UB	47.5 N, 26.1 E	ROU	52.8 N, 27.8 E	URS				
UM					46.9 N, 42.4 E	URS		
UN	57.4 N, 33.2 E	URS						
UQ			52.2 N, 79.2 E	URS	42.2 N, 56.8 E	URS	46.1 N, 74.8 E	URS
UR							61.5 N, 70.8 E	URS
US			52.6 N, 28.7 E	URS	51.5 N, 27.4 E	URS	51.0 N, 29.9 E	URS
VF	47.3 N, 41.1 E	URS						

Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
VG			59.0 N, 30.4 E	URS	59.7 N, 31.1 E	URS	61.2 N, 32.7 E	URS
VI							45.3 N, 66.9 E	URS
VL					53.8 N, 24.0 E	URS	59.9 N, 54.2 E	URS
VM					51.3 N, 50.2 E	URS		
VN	58.6 N, 43.8 E	URS						
VR	53.7 N, 15.5 E	POL	59.1 N, 26.5 E	URS	58.9 N, 31.0 E	URS	59.1 N, 30.9 E	URS
W1	48.5 N, 18.6 E	TCH						
WA			54.7 N, 43.9 E	URS	53.2 N, 51.0 E	URS	54.0 N, 46.9 E	URS
WD	55.1 N, 38.5 E	URS	52.9 N, 34.8 E	URS	52.6 N, 26.9 E	URS	50.6 N, 36.9 E	URS
WG							55.6 N 38.7 E	URS
WI	55.6 N, 30.8 E	URS	55.1 N, 24.8 E	URS	55.9 N, 36.0 E	URS	55.7 N, 37.8 E	URS
WM			49.2 N, 55.4 E	URS	43.6 N, 67.5 E	URS	47.9 N, 58.8 E	URS
WQ	46.7 N, 24.7 E	ROU	50.3 N, 20.1 E	POL	48.7 N, 22.5 E	URS	48.9 N, 22.1 E	TCH
XI							49.0 N, 38.3 E	URS
XN					51.6 N, 19.9 E	POL	51.4 N, 30.4 E	URS
XW							42.7 N, 45.9 E	URS
Z1			49.0 N, 15.4 E	TCH	48.7 N, 18.5 E	TCH		
ZD					63.5 N, 44.7 E	URS	64.9 N, 42.1 E	URS

Table 4. Location of Emitters of Harmful Interference  
(cont.)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code	June 86	ITU Country Code
ZM	53.6 N, 22.7 E	POL	51.9 N, 17.3 E	POL	51.1 N, 29.8 E	URS	50.1 N, 32.7 E	URS
ZT	47.3 N, 138.2 E	URS			49.3 N, 142.7 E	URS	51.5 N, 144.4 E	URS
**							28.0 N, 116.9 E	CHN
**							33.4 N, 44.3 E	IRQ





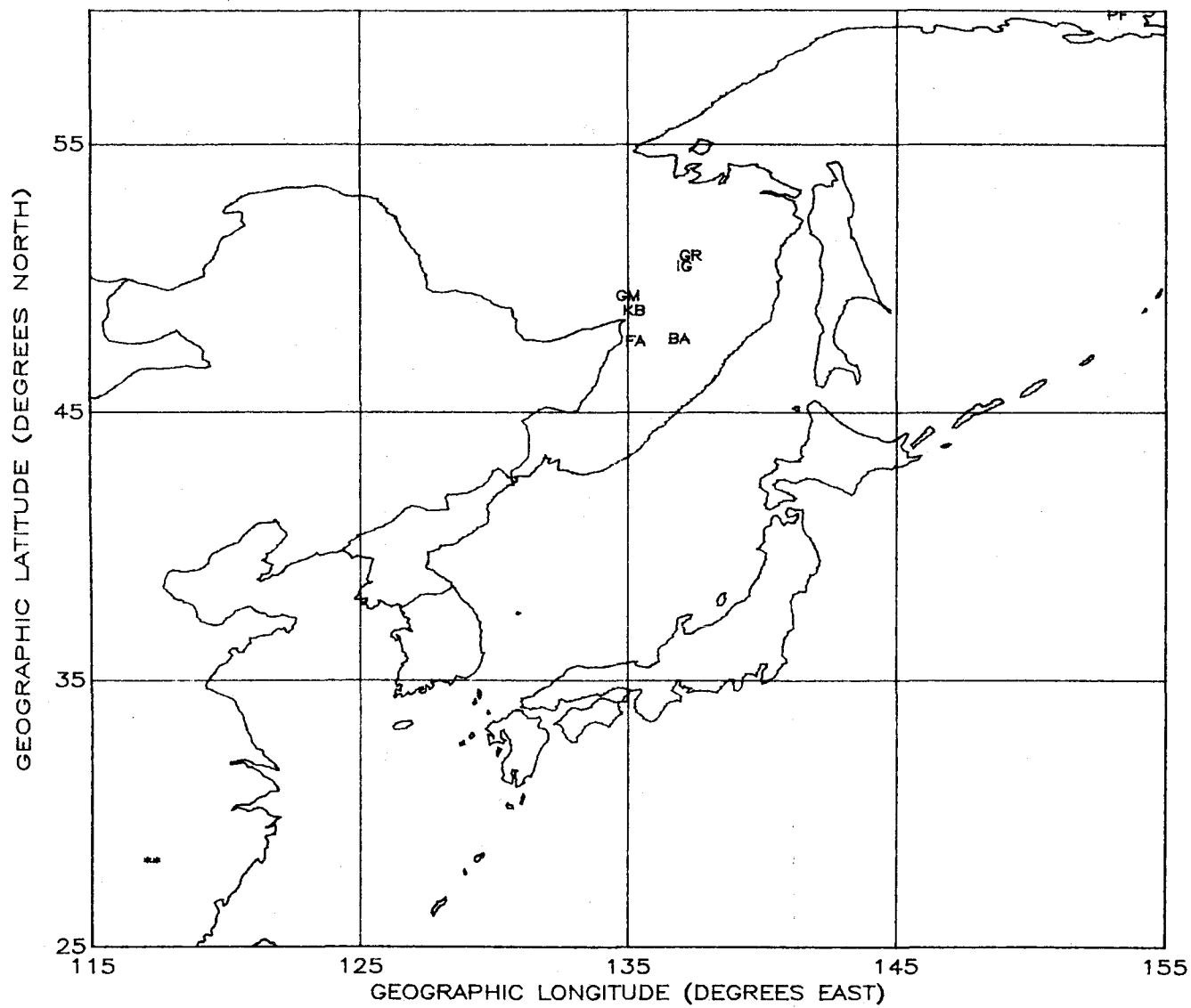


Figure 2. Locations of emitters of harmful interference, indicated by marker ID, in the Eastern Soviet Union and China during June 1986.

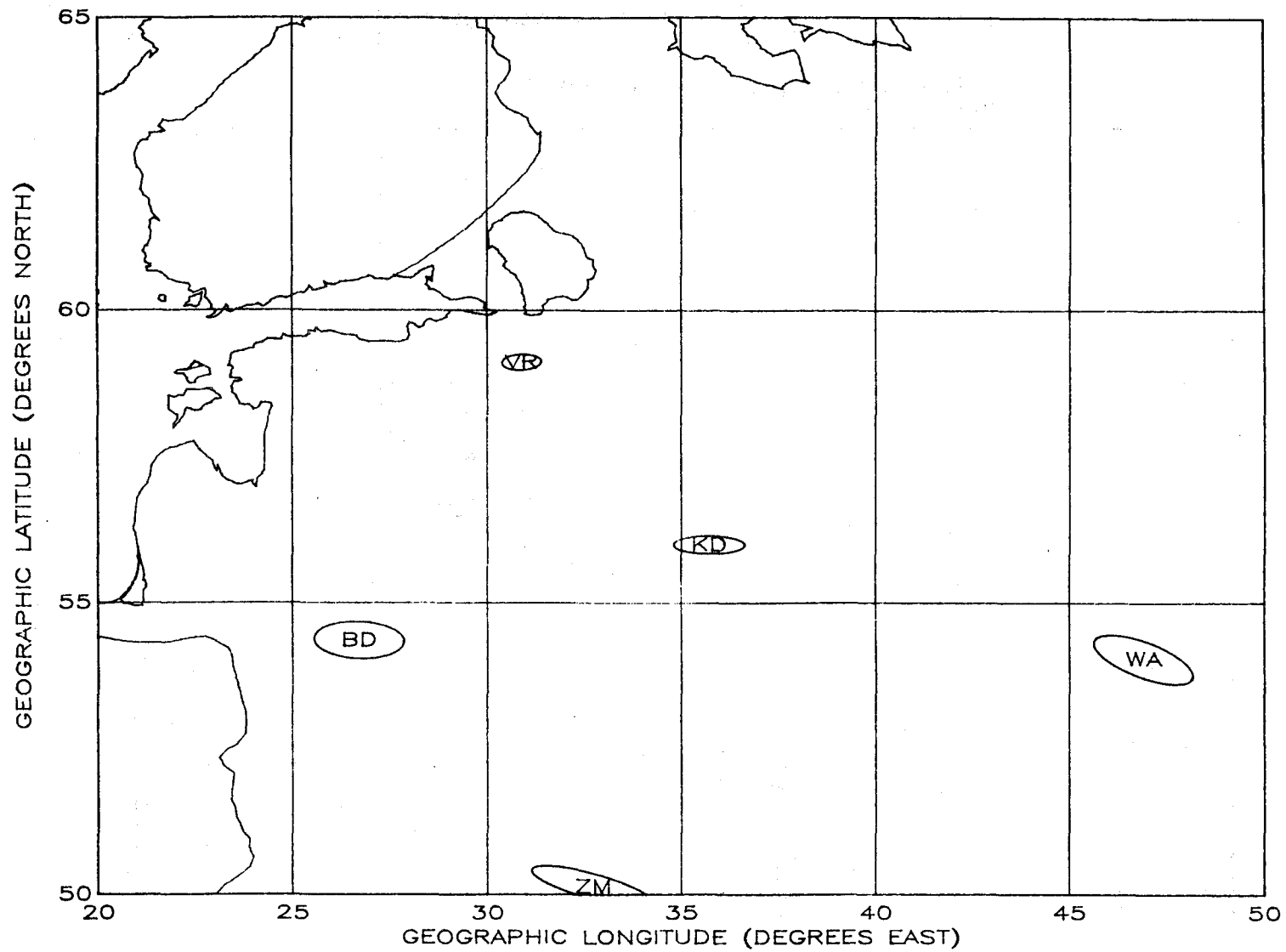
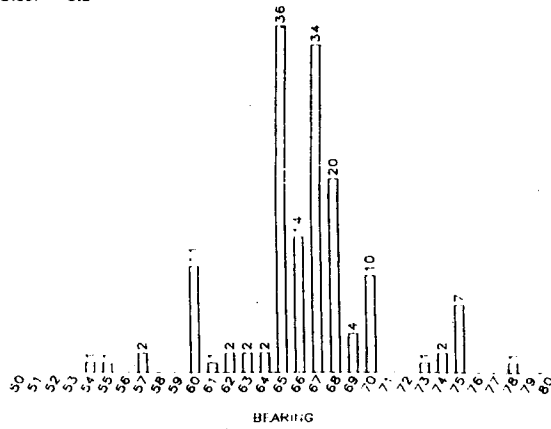


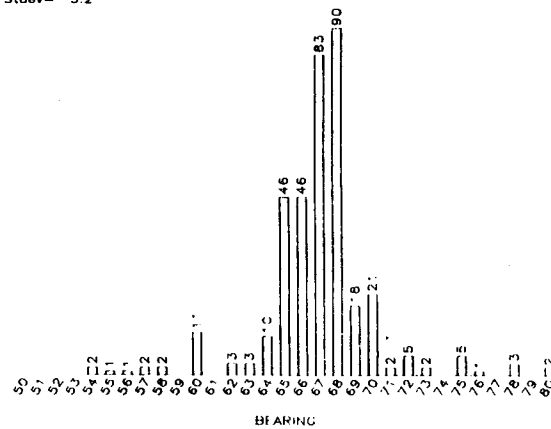
Figure 3. Example of the locations of selected jammer emitters and associated confidence ellipses for June 1986.

Median= 67  
Mean= 66.4  
Stdev= 3.8



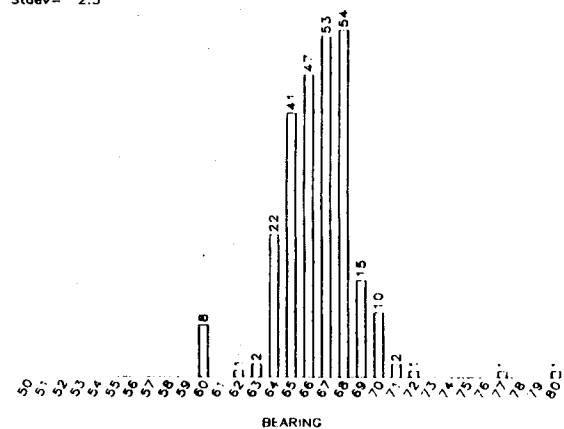
a

Median= 67  
Mean= 67.0  
Stdev= 3.2



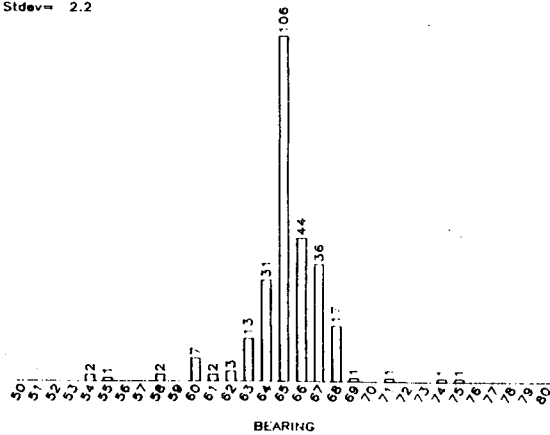
b

Median= 67  
Mean= 66.6  
Stdev= 2.3



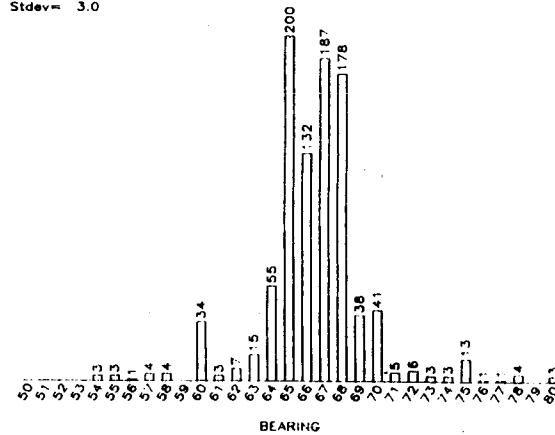
c

Median= 65  
Mean= 65.2  
Stdev= 2.2



d

Median= 67  
Mean= 66.4  
Stdev= 3.0



e

Figure 4. Histograms showing the number of bearings recorded at Baldock, United Kingdom, during the (a) October 1984, (b) March 1985, (c) January 1986, (d) June 1986, and (e) combined observations for all four monitoring periods.

Table 5. Jammer Identification Markers Observed During the June 1986 Monitoring Period.

157 MARKERS (\*\* represents unidentified and is not counted)

Sorted by Number of Occurrences

2621:TU	1587:**	914:PB	849:WI	774:LM	762:MU	650:1G
626:BG	593:VR	549:LK	515:4F	497:U7	460:TK	458:7K
450:DR	415:KD	396:WA	384:FU	369:AG	364:BD	344:RB
341:ZM	338:US	334:77	311:4N	306:MF	301:NS	296:66
294:KB	289:GI	288:DA	269:GR	265:DU	259:SF	258:SM
254:IG	248:K7	243:HM	211:FL	210:FA	208:LG	204:AN
204:WM	202:B1	194:D3	193:RQ	192:NI	185:CB	185:R9
179:PL	177:GM	173:WD	165:RT	148:L8	148:VG	143:BL
142:1D	133:PK	128:KU	122:IR	117:PF	115:ZD	113:WG
107:CG	106:ZT	104:XN	101:AD	100:G7	100:MP	98:TR
96:BU	96:SU	96:WQ	92:L4	85:UB	85:Z3	83:MG
81:A5	77:KF	76:KM	75:UQ	73:DB	73:MX	68:BQ
66:FR	66:PA	66:UN	65:8L	65:WL	62:BI	62:XR
61:MA	60:FG	59:UD	58:S5	57:G3	57:M3	56:UR
55:AR	55:R6	54:VN	54:ZA	48:XI	45:VL	42:FM
42:KV	40:BN	38:VU	34:UA	32:VI	30:HP	30:ST
29:BA	28:IB	28:LF	27:XU	25:AK	25:RD	24:RS
21:AU	21:BR	21:GS	21:GU	21:M7	18:AS	17:NU
17:SB	17:WR	16:55	15:LD	15:MB	15:MS	15:RV
15:Z1	14:WT	13:UM	12:G1	12:LT	12:MW	12:VM
12:XW	11:AW	11:GA	11:LR	11:ND	11:NM	11:S7
11:W1	10:DW	9:FS	9:GF	9:PM	9:ZK	8:GB
8:NA	8:UZ	8:WB	8:XD			

Sorted Alphabetically

1587:**	142:1D	650:1G	515:4F	311:4N	16:55	296:66
334:77	458:7K	65:8L	81:A5	101:AD	369:AG	25:AK
204:AN	55:AR	18:AS	21:AU	11:AW	202:B1	29:BA
364:BD	626:BG	62:BI	143:BL	40:BN	68:BQ	21:BR
96:BU	185:CB	107:CG	194:D3	288:DA	73:DB	450:DR
265:DU	10:DW	210:FA	60:FG	211:FL	42:FM	66:FR
9:FS	384:FU	12:G1	57:G3	100:G7	11:GA	8:GB
9:GF	289:GI	177:GM	269:GR	21:GS	21:GU	243:HM
30:HP	28:IB	254:IG	122:IR	248:K7	294:KB	415:KD
77:KF	76:KM	128:KU	42:KV	92:L4	148:L8	15:LD
28:LF	208:LG	549:LK	774:LM	11:LR	12:LT	57:M3
21:M7	61:MA	15:MB	306:MF	83:MG	100:MP	15:MS
762:MU	12:MW	73:MX	8:NA	11:ND	192:NI	11:NM
301:NS	17:NU	66:PA	914:PB	117:PF	133:PK	179:PL
9:PM	55:R6	185:R9	344:RB	25:RD	193:RQ	24:RS
165:RT	15:RV	58:S5	11:S7	17:SB	259:SF	258:SM
30:ST	96:SU	460:TK	98:TR	2621:TU	497:U7	34:UA
85:UB	59:UD	13:UM	66:UN	75:UQ	56:UR	338:US
8:UZ	148:VG	32:VI	45:VL	12:VM	54:VN	593:VR
38:VU	11:W1	396:WA	8:WB	173:WD	113:WG	849:WI
65:WL	204:WM	96:WQ	17:WR	14:WT	8:XD	48:XI
104:XN	62:XR	27:XU	12:XW	15:Z1	85:Z3	54:ZA
115:ZD	9:ZK	341:ZM	106:ZT			

Note: Only instances with eight or more observations are included in the table.

looking through this table, bear in mind that the confidence ellipses of many of the emitters may overlap two to three different countries. This happens primarily on emitters that are located in and around the Eastern bloc countries. For markers that were observed during two or three monitoring periods, the location and the country code given for the June 1986 monitoring period is believed to be the most realistic.

The June results show that most of the sources of harmful interference have located within the Soviet Union. The locations of 81 of the 99 emitters were situated in the Soviet Union. Also located during the June monitoring were six emitters in Bulgaria, seven in Czechoslovakia, and three in Poland. Of the 66 emitters located during the January 1986 monitoring period, 56 were located within the Soviet Union. The remaining 10 emitters were located in Eastern European countries. For the October 1984 monitoring period there are 68 distinct emitters given in Table 4, 44 of which are located in the Soviet Union and 24 are located in the Eastern bloc countries. For the March/April monitoring period, 55 of the 69 emitters given in Table 4 are in the Soviet Union and the remaining 14 were located as emanating from Eastern bloc countries.

The results shown in Table 4 indicate that many of the markers do not appear to have changed locations between monitoring periods. Considering that the four monitoring periods produced data taken from four different seasons that cover nearly a 2-year time span, there is a high degree of consistency in the locations. Figure 4 serves to reinforce this point. This figure shows a histogram of bearings observed at Baldock, England, on marker TU over the course of the four monitoring periods. The figure shows that the bearings have not changed appreciably during the four monitoring periods. Also, the combined histogram for all four seasons of monitoring produces a reasonable bearing variance. This may suggest that in this case at least the marker did not move during the course of the four monitoring periods.

### 3.2 Statistical Results of Monitoring Campaigns

Table 5 provides a listing of all the markers (jammer ID's) that were observed during June 1986. Only observations made for the specific times and frequency bands given by the IFRB monitoring schedule are included in the listing. The markers included in this table were observed at least four times during the monitoring period. The numbers given beside the markers denote the

Table 6. Summary of the Specific Broadcasters and Languages that were Observed to be Jammed During the June Monitoring Period

VOA Voice of America				BBC British Broadcasting Corp				???? Miscellaneous			
	0-15	16-29	Jams		0-15	16-29	Jams		0-15	16-29	Jams
RUSS	114/114	302	3027	RUSS	49/ 51	122	1172	????	3/ 3	744	3206
POLI	26/ 26	58	502	POLI	20/ 22	38	317	ARAB	8/ 15	19	99
UKR	12/ 12	48	313	ARAB	3/ 7	8	25	TUR	0/ 0	28	75
ARM	8/ 9	11	128	BULG	4/ 6	2	21	I	0/ 0	31	58
UZBE	11/ 17	18	127	PERS	2/ 3	0	13	F	0/ 0	16	54
PASH	12/ 13	10	75	ROMA	1/ 1	2	10	TUN	0/ 0	16	25
DARI	3/ 3	18	61	CZEC	2/ 4	3	7	YUG	0/ 0	11	22
LAT	6/ 7	8	60	HUNG	2/ 7	1	4	LUX	0/ 0	8	9
LITH	5/ 5	8	60	SERB	0/ 0	3	4	MCO	0/ 0	4	9
EST	4/ 4	8	44	URDO	3/ 5	0	3	ALG	0/ 0	3	8
AZ	0/ 0	4	10	SLVN	1/ 4	0	2	BEL	0/ 0	3	8
GEOR	1/ 1	2	5	PASH	1/ 3	0	1	BFRE	2/ 2	0	8
Total	202/211	420	4412	SLVK	0/ 1	1	1	UAE	0/ 0	2	5
				TURK	0/ 0	1	1	CVA	0/ 0	3	4
				Total	88/114	157	1581	EQA	0/ 0	4	4
								FNL	0/ 0	3	4
								EGY	0/ 0	2	3
								ARG	0/ 0	1	2
								IND	0/ 0	1	2
								B	0/ 0	1	1
								NETH	0/ 1	1	1
								NOR	0/ 0	1	1
								Total	13/ 20	834	3608
RFE Radio Free Europe				DW Deutsche Welle							
	0-15	16-29	Jams		0-15	16-29	Jams				
POLI	103/105	300	2499	RUSS	34/ 34	80	991				
CZEC	72/ 72	194	1364	BULG	11/ 12	36	285				
BULG	17/ 17	39	271	CZEC	13/ 13	23	226				
LITH	7/ 7	30	238	DARI	10/ 10	11	122				
HUNG	12/ 13	71	213	PASH	4/ 6	11	48				
LAT	4/ 4	25	144	Total	72/ 75	151	1672				
EST	2/ 2	21	122								
ROMA	1/ 2	13	30								
PORT	0/ 0	1	1								
Total	218/222	498	4882								
RL Radio Liberty				IBA KOL Israel							
	0-15	16-29	Jams		0-15	16-29	Jams				
RUSS	255/256	684	8382	RUSS	18/ 19	45	425				
UKR	23/ 23	136	927	HEBR	9/ 9	8	120				
TI	13/ 13	82	517	YIDD	3/ 3	3	33				
AZ	12/ 12	31	280	Total	30/ 31	56	578				
TB	8/ 8	38	278								
BR	11/ 11	30	239								
ARM	6/ 6	26	189								
GEOR	3/ 3	26	149								
Total	331/332	743	10961								

number of observations; the two asterisks indicate that harmful interference was observed on frequencies for which no marker was present or the marker could not be identified. During the June 1986 monitoring period, 157 unique markers associated with jamming were observed. Of these, 66 were listed in Table 4 for June along with their locations. It can be seen in Table 5 that the number of observations of harmful interference for which no marker is associated is about one and a half times greater than the most frequently occurring marker.

Table 6 provides an overview of the jamming noticed for each broadcaster. These are then broken down into each of the respective languages. For example, VOA Russian was scheduled for monitoring during the first 15 minutes of the time blocks, 114 times, with jamming observed in all 114 of these time blocks. Out of the second 15-minute period of monitoring, jamming was noticed on the VOA broadcasts within the specified bands during 420 time blocks for the entire 3 week period. Broadcasts for several languages may be observed within the same time block; for example, there were 302 observations of jamming of VOA Russian, 58 observations of jamming of VOA Polish, and jamming on several of the minority languages of the Soviet Union. The number of jams on VOA Russian may exceed the number of time blocks (302) jammed because within each time block there may be more than one VOA Russian frequency jammed by multiple transmitters.

The results presented in Table 6 illustrate which of the broadcasters are the primary targets of intentional harmful interference. It can be seen that Radio Liberty (RL) and Radio Free Europe (RFE) are targeted for harmful interference more than any other broadcaster observed. For all broadcasters, the Russian language and Polish language broadcasts are consistently jammed. Broadcasts in Czechoslovakian and Bulgarian languages appear to be frequently jammed also. Although the Polish language broadcasts are the primary target of many jamming transmissions, all of the markers that are found to jam the Polish language are located in the Soviet Union, not within the Polish borders.

#### 4. THIRD-PARTY MONITORING RESULTS

During the June 1986 IFRB monitoring period, arrangements were made by ITS to coordinate the collection of another type of monitoring data. Several of the administrations cooperating in the IFRB monitoring along with a few

broadcast organizations were called upon to contribute to a survey designed to assess the levels of interference on selected broadcasts that were not the primary target of interference from jamming. The stations contributing to this survey were asked to monitor broadcasts directed into their region that were situated on frequencies that were either cochannel or adjacent channel to known jammed frequencies and to note any disturbances either from jamming or other broadcasts in the region. Broadcasts that were monitored on frequencies either cochannel or adjacent channel to known jammed frequencies were termed "third party" broadcasts because of the potential for indirect interference from jamming on these frequencies.

Several different schedules were developed for the third-party program in order to accommodate monitors situated in diverse geographic regions. Different schedules were devised for listeners in Australia, Europe, the Far East, the Middle East, North Africa, North America, South America, and Southeast Asia. Many of the administrations participating in this monitoring campaign also participated in the IFRB monitoring program. The list of participating stations is shown in Table 7. As shown in the table, many of the participating administrations employed their broadcast relay stations, located in different countries, to contribute to the survey.

The third-party monitoring schedules were arranged to complement the direction-finding (DF) schedule (i.e., Table 2). The frequencies assigned to specific time periods for the third-party monitoring followed the frequencies assigned to the DF schedule. However, not all of the frequencies specified in the direction-finding schedule are associated with third-party broadcasters. The list of third-party broadcasters that appear on the schedule was obtained from the ITU tentative broadcast schedule for June 1986.

A sample of the schedule for the European listeners will serve to illustrate which broadcast services were monitored and the types of information obtained. In the sample schedule in Table 8, columns 1 and 2 specify the frequency and time of the known jammed broadcast (from the DF schedule). Columns 3-5 contain pertinent information on the third-party broadcasts that were expected to be subjected to interference. It should be noted that the frequency of the third-party broadcast, shown in column 3, is within 5 kHz of the jammed frequency shown in column 1. The origin of the third-party broadcast is shown in column 4, and column 5 indicates the broadcast administration.



Table 7. List of Stations Participating in the Third-Party Monitoring

<u>Administration</u>	<u>Station Location</u>	<u>Monitor Schedule Followed</u>
United States	13 FCC Stations:	
	Anchorage, Alaska	North America
	Ferndale, Washington	North America
	Livermore, California	North America
	Douglas, Arizona	North America
	Kingsville, Texas	North America
	Grand Island, Nebraska	North America
	Laurel, Maryland	North America
	Belfast, Maine	North America
	Allegan, Michigan	North America
	Powder Springs, Georgia	North America
	Fort Lauderdale, Florida	North America
	Sabana Seca, Puerto Rico	North America
	Honolulu, Hawaii	North America
	4 VOA Stations:	
	Islamabad, Pakistan	Southeast Asia
	Vienna, Austria	Europe
Helsinki, Finland	Europe	
Hong Kong	Southeast Asia	
Germany	4 Deutsche Welle Stations:	
	Bockhaken, Germany	Europe
	Sesimbra, Portugal	Europe
	Malta	Europe
	Kigali, Rwanda	North Africa
Netherlands	Ned Horst Den Berg, Holland	Europe
Italy	Monza, Italy	Europe
Norway	Ski, Norway	Europe
Canada	Fort Smith, Alberta	North America
	St. Remi, Quebec	North America
	Langley, British Columbia	North America
Korea	Seoul, Korea	Far East

Table 8. Example of the Third-Party Monitoring Schedule and Observations Obtained During the June 1986 Monitoring Period.

REPORTING ADMINISTRATION \_\_\_\_\_ MONITORING STATION NAME \_\_\_\_\_  
 JUNE 9, 1986 EUROPEAN STATIONS LOCATION \_\_\_\_\_  
 CIRAF ZONE \_\_\_\_\_

LIKELY JAMMED FREQUENCY		BROADCAST AFFECTED			OBSERVATIONS by MONITOR				
1	2	3	4	5	6	7	8	9	
Freq (kHz)	Hour (UTC)	Freq (kHz)	Name of Station	Country Symbol	Time of Observation	Interference Present?	Type of Interference	Identification	
5955	0430	5960	ANKARA	TUR	432	Y	AXX	VR	
6060	0530	6060	CALTANISSETTA I		530	Y	TWO	DR	VOA
6060	0530	6065	KARLSBORG	S	532	Y	A3E		VOA
11725	0600	11730	SFAX	TUN	603	Y	AXX	1G	
11725	0730	11730	SFAX	TUN	731	Y	AXX	1G	
5970	1000	5965	WAVRE	BEL	1007	Y	AXX	3D RB 1D	
5995	1100	5995	MT. CARLO	MCO	1111	Y	AXX	G7	
5995	1100	6000	WIEN	AUT	1113	Y	AXX	G7	
11780	1200	11785	ABIS	EGY	1207	Y	TWO	BD TU BL LG	*B
6105	1230	6100	BIJELJINA	YUG	1245	Y	AXX	LG	
11770	1300	11770	DHAKA	BGD	1315	Y	A3E		*B
6105	1530	6100	BELGRADE	YUG	1551	Y	AXX	WI LG	
6125	1630	6120	PORI	FNL	1635	Y	TWO	1D	*B
6125	1630	6130	HALIFAX	CAN	1636	Y	TWO	1D	*B
11725	1700	11730	AL KHAISAH	QAT	1711	Y	AXX	DA	
11915	1730	11915	CONCEPCION	PRG	1745	Y	AXX	XN TU	
11915	1730	11920	ARGANDA	E	1746	Y	TWO	XN TU	*B
11710	1800	11715	S. M. GALERIA	CVA	1810	Y	TWO	PK	*B
11710	1800	11715	BEIJING	CHN	1811	Y	TWO	PK	*B
6170	1900	6165	LENK	SUI	1910	Y	A3E		BUL
5990	1930	5985	ANKARA	TUR	1944	Y	A3E		RFE
5990	1930	5995	MT. CARLO	MCO	1945	Y	A3E		*B
6115	2000	6110	CYCLOPS	MLT	2009	Y	AXX	US	
6115	2000	6115	K. WUSTERHAUSE	DDR	2010	Y	AXX	US	
6115	2000	6120	PORI	FNL	2017	Y	AXX	US BG 1D DR	
11970	2030	11965	BOBO DILOULASS	BFA	2040	Y	AXX	FU	
6060	2100	6060	CALTANISSETTA I		2106	Y	AXX	KD DR 1D	

Following the specified frequency schedule, the monitors were asked to decide if interference was present and, if possible, to identify the type of interference. When interference was observed on a particular frequency, it was noted in column 7 with a "y"\*. The type of interference, recorded in column 8, specifies either noise transmission (AXX) or voice transmission (A3E). Finally, the Morse code identifier and/or the administration responsible for the interference were recorded in column 9 when it was possible for the listener to identify these characteristics.

Broadcast services that operated within 5 kHz of a known jammed frequency were surveyed to assess the potential interference from jamming. The pie chart in Figure 5 shows the third-party administrations whose broadcasts are potentially subject to interference in Europe because of jamming directed toward other administrations. The list of administrations surveyed during this monitoring period is fairly extensive. The chart illustrates that Yugoslavia (YUG) and Radio Vatican (CVA), for example, are among the most frequent candidates for third-party interference in Europe.

Statistical analyses performed on the third-party observations give an estimation of the percentage of times that a third-party broadcast had been subjected to interference from jamming. An illustration of the information collected at the monitoring station in Vienna, Austria, given in Figure 6, shows the percentage of jammed to unjammed time periods for broadcasts of the administration indicated. This figure clearly illustrates that interference from jamming to the third-party broadcasts at this location is very high. For example, 90 percent of the third-party broadcasts from Italy (I) were subject to interference from jamming. Likewise nearly 63 percent of the monitored Radio Vatican (CVA) programs were subject to interference from jamming.

An analysis of all the observations from the monitoring station in Vienna, Austria, is shown in Figure 7. This particular figure illustrates the interference from jamming as well as from other broadcasters. The majority of interference noticed against the broadcasts is from sources of harmful interference or jamming. The bar chart shown in the figure also illustrates that there are several time blocks where the broadcasters appear to be

\*Note: The presence of a "y" (i.e., yes) in column 7 does not necessarily suggest that the interference rendered the broadcast signal unintelligible. The degree, or signal strength, of the interference was not recorded in this monitoring.

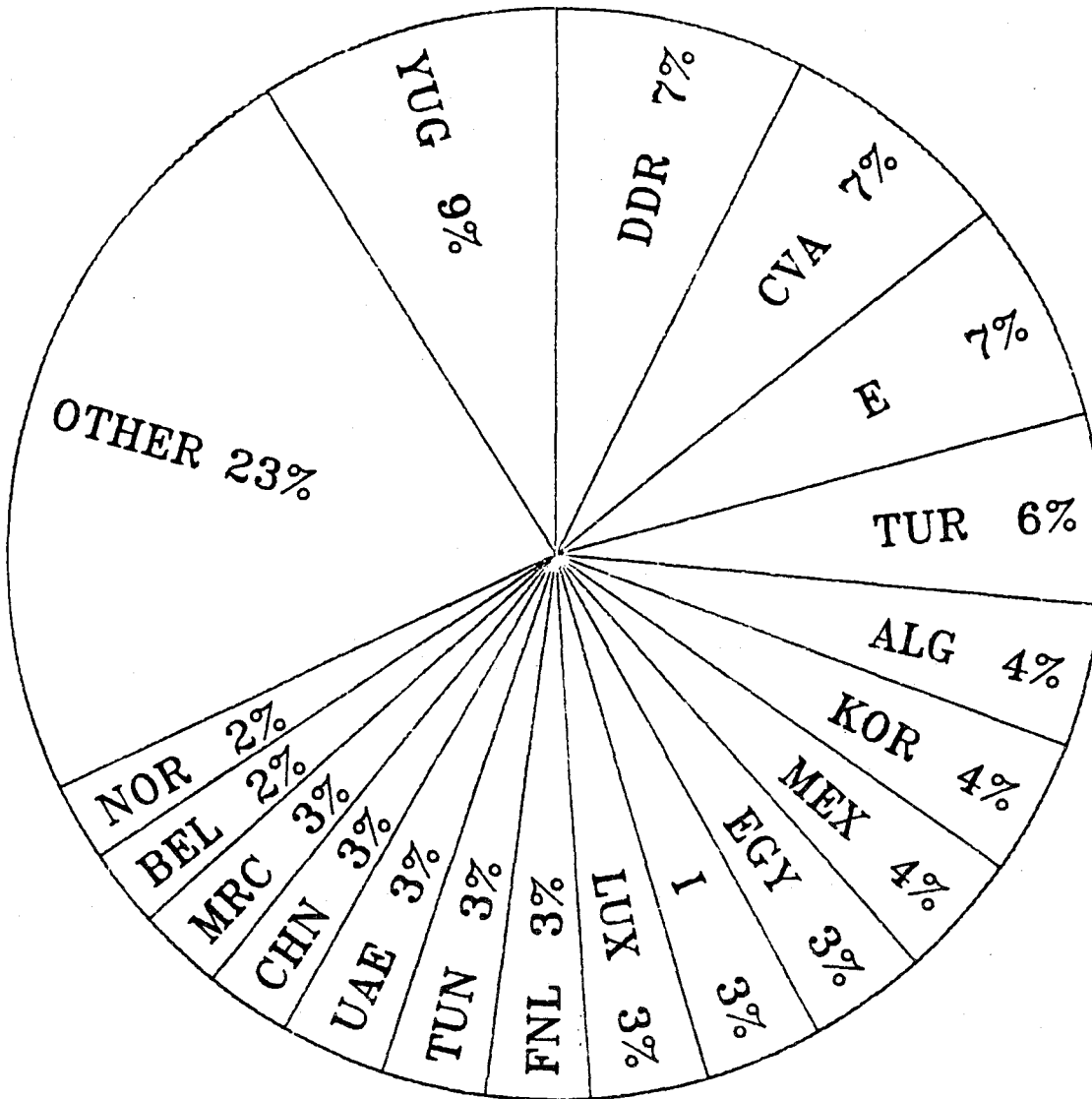


Figure 5. Pie chart of the third-party broadcast administrations potentially subject to interference from the European third-party monitoring schedule.

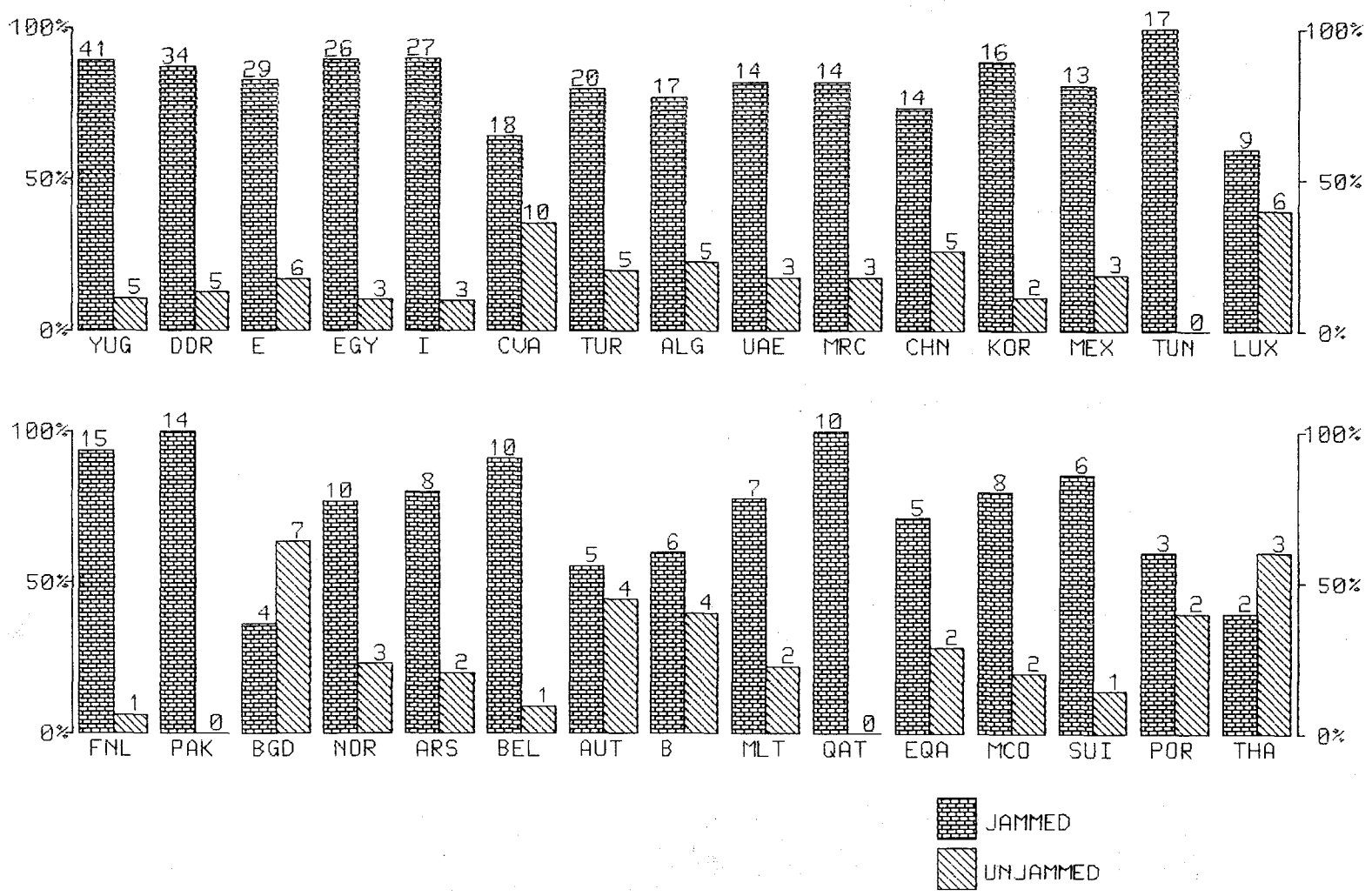


Figure 6. Bar charts of observations from Vienna, Austria, showing the percentage of jammed to unjammed time periods for each broadcast administration. The number on top of each bar indicates the number of observations.

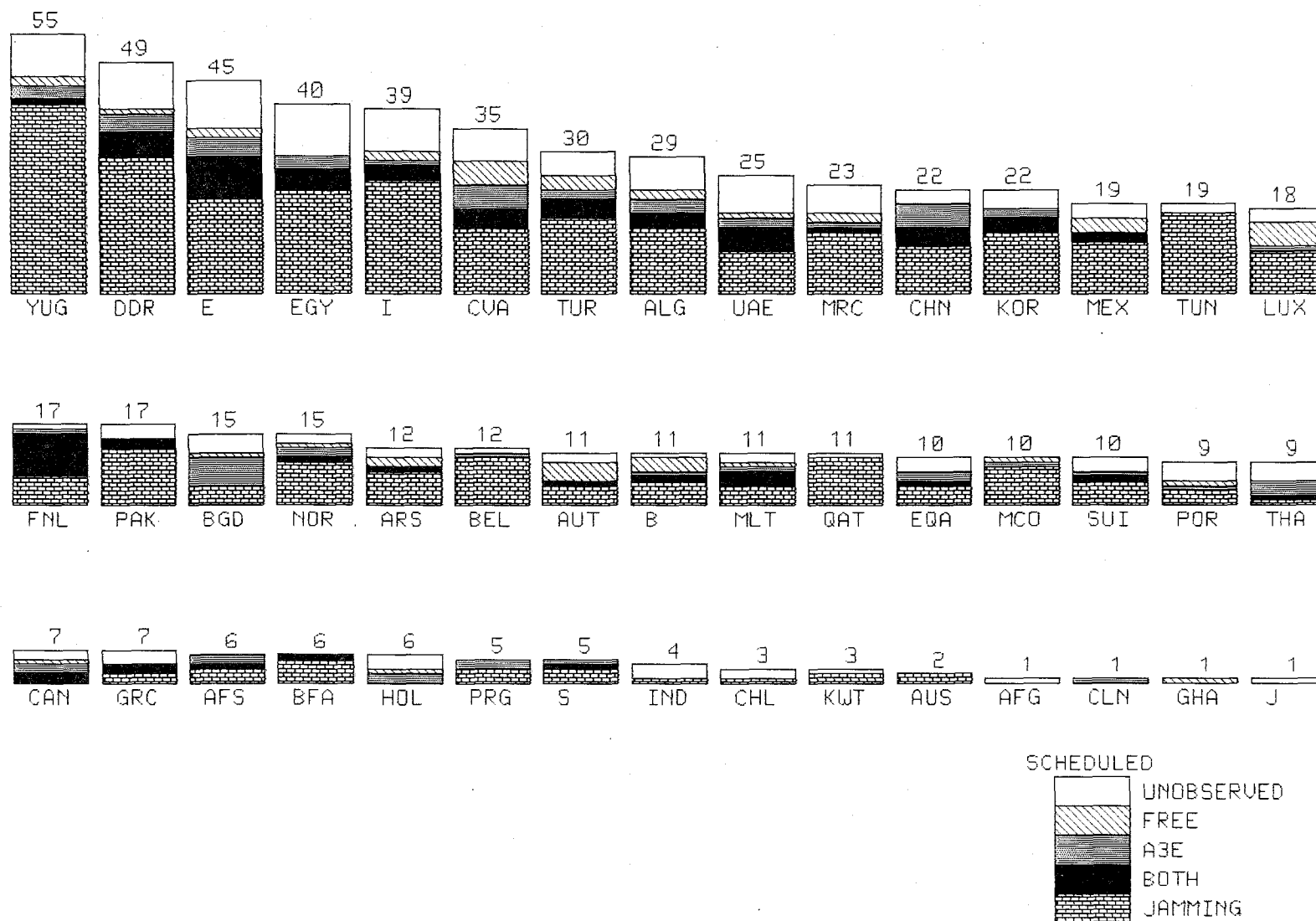


Figure 7. Bar charts of observations from Vienna, Austria, depicting the number of time periods each administration was scheduled for monitoring. Also indicated within the bar chart for each administration is the number of scheduled time periods that were either unobserved, free of interference, interfered with by other broadcasters (A3E), jammed, or both jammed and interfered with by other broadcasters.

interfering with each other. Although the presence of interference from another broadcaster does not occur as frequently as the harmful interference from jamming, the presence of both types of interference does occur fairly often. When both types of interference are present on a single broadcast there is a potential for harmful interference. A breakdown of the actual number of observations of interference for each administration is listed in Table 9.

Accompanying each of the observations of interference on the survey is an identification of the party responsible for the interference. The interference was identified by the broadcast administration responsible for the interference or the jamming Morse code identifier. Table 10 contains a list of the jammer markers and broadcasters recorded at the station in Vienna. During the course of the monitoring period, 83 different jammer markers and 13 different broadcasters were identified as causing interference at the station in Vienna.

The markers recorded during this exercise are in agreement with the markers noticed at the same time periods for the direction-finding portion of the monitoring. Among the stations identified as causing interference in Vienna, the Soviet Union was listed on 12 different observations; the British Broadcasting Corporation (BBC) was reported on 2 different occasions; and the Voice of America (VOA), Deutsche Welle (DW), Bulgaria (BUL), Radio Free Europe (RFE), and Austria (AUT) were reported twice during the monitoring.

The tables and graphs presented illustrate the information recorded from only one station. Analysis of information collected at other stations in Europe shows many of the same features. For example, observations from stations in Bockhaken, Germany, and The Netherlands, Figures 8 and 9, show that the primary source of interference in Europe is from jamming. In other parts of the world, the interference from jamming is not as great as it is in Europe. Illustrations of the information from North Africa (Figure 10), Pakistan (Figure 11), and Hong Kong (Figure 12), show that jamming interference is still present. The interference from jamming is noticed in Pakistan on a fairly high percentage of the third-party broadcasts, as shown in Figure 13. A summary of all of the tables processed for each of the stations is given in Appendix C.

Table 9. Listing of the Observations from Vienna, Austria, for Each Administration that was (a) Scheduled for Observation, (b) Actually Observed, (c) Jammed, (d) Interfered by Other Broadcasters, (e) Interfered by Both Jamming and Other Broadcasters.

	a	b	c	d	e		a	b	c	d	e
YUG(	55,	46,	40,	3,	1)	DDR(	49,	39,	29,	4,	5)
E (	45,	35,	20,	4,	9)	EGY(	40,	29,	22,	3,	4)
I (	39,	30,	24,	1,	3)	CVA(	35,	28,	14,	5,	4)
TUR(	30,	25,	16,	2,	4)	ALG(	29,	22,	14,	3,	3)
UAE(	25,	17,	9,	2,	5)	MRC(	23,	17,	13,	1,	1)
CHN(	22,	19,	10,	5,	4)	KOR(	22,	18,	13,	2,	3)
MEX(	19,	16,	11,	0,	2)	TUN(	19,	17,	17,	0,	0)
LUX(	18,	15,	9,	1,	0)	FNL(	17,	16,	6,	1,	9)
PAK(	17,	14,	12,	0,	2)	BGD(	15,	11,	4,	6,	0)
NOR(	15,	13,	9,	2,	1)	ARS(	12,	10,	7,	0,	1)
BEL(	12,	11,	10,	1,	0)	AUT(	11,	9,	4,	0,	1)
B (	11,	10,	5,	1,	1)	MLT(	11,	9,	4,	1,	3)
QAT(	11,	10,	10,	0,	0)	EQA(	10,	7,	4,	2,	1)
MCO(	10,	10,	8,	1,	0)	SUI(	10,	7,	5,	1,	1)
POR(	9,	5,	3,	1,	0)	THA(	9,	5,	1,	3,	1)
CAN(	7,	5,	0,	2,	2)	GRC(	7,	4,	2,	0,	2)
AFS(	6,	6,	3,	2,	1)	BFA(	6,	6,	5,	0,	1)
HOL(	6,	3,	0,	2,	0)	PRG(	5,	5,	3,	2,	0)
S (	5,	5,	3,	1,	1)	IND(	4,	1,	1,	0,	0)
CHL(	3,	1,	1,	0,	0)	KWT(	3,	2,	2,	0,	0)
AUS(	2,	2,	2,	0,	0)	AFG(	1,	0,	0,	0,	0)
CLN(	1,	1,	0,	1,	0)	GHA(	1,	1,	0,	0,	0)
J (	1,	0,	0,	0,	0)						



Table 10. Summary of Observations from Vienna, Austria, with a List of the Jammer Markers that were Recorded and a List of Other Broadcasters Identified.

VIENNA, AUSTRIA

NUMBER OF SCHEDULED OBSERVATIONS 703  
 NUMBER OF OBSERVATIONS TOTAL 559  
     NUMBER OF OBSERVATIONS UNHARMED 45  
     NUMBER OF OBSERVATIONS INTERFERED 514  
         NUMBER OF INTENTIONAL INTERFERENCE 373  
         NUMBER OF UNINTENTIONAL INTERFERENCE 65  
         BOTH INTENTIONAL AND UNINTENTIONAL 76

NUMBER OF MARKERS RECORDED - 83

TU(57)	44(36)	1G(28)	US(28)	BG(27)	SF(26)	1D(24)	TK(23)	** (21)	IM(20)
4N(19)	DR(17)	ZM(17)	AN(14)	RB(14)	FU(13)	PB(12)	WD(12)	KD(11)	DA(10)
DU(10)	VR(10)	WI(10)	33(9)	8L(9)	LK(9)	MA(9)	AG(8)	B1(8)	SU(7)
WG(7)	7K(6)	FG(6)	UN(6)	G7(5)	MF(5)	PK(5)	4F(4)	HM(4)	IR(4)
SM(4)	U7(4)	VG(4)	XN(4)	BD(3)	BL(3)	GI(3)	LG(3)	PL(3)	RO(3)
XI(3)	BQ(2)	CB(2)	FA(2)	FL(2)	K7(2)	MG(2)	MU(2)	NS(2)	RT(2)
TR(2)	WA(2)	WM(2)	ZA(2)	3D(1)	AD(1)	AR(1)	BI(1)	BU(1)	CG(1)
F3(1)	FR(1)	L4(1)	L8(1)	MP(1)	NI(1)	R6(1)	RD(1)	U5(1)	UB(1)
UR(1)	VL(1)	W4(1)							

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 13

*B(87)	URS(12)
BBC(4)	RFE(2)
DW(2)	BUL(2)
VOA(2)	RFI(2)
AUT(2)	RIAS(1)
RCI(1)	FRANCE(1)
ROU(1)	

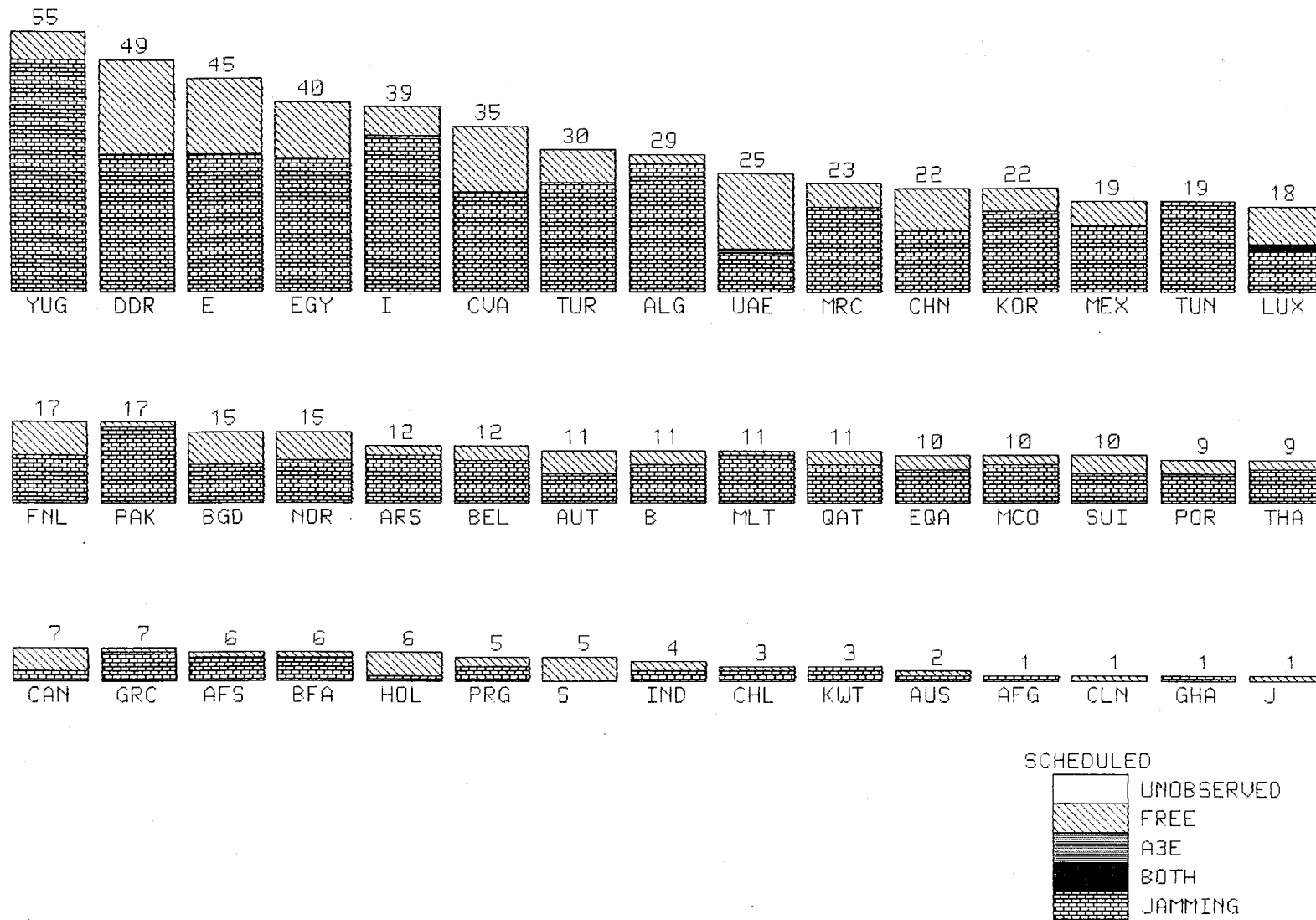


Figure 8. Bar charts of observations from Bockhaken, Germany, depicting the number of time periods each administration was scheduled for monitoring. Also indicated within the bar chart for each administration is the number of scheduled time periods that were either unobserved, free of interference, interfered with by other broadcasters (A3E), jammed, or both jammed and interfered with by other broadcasters.

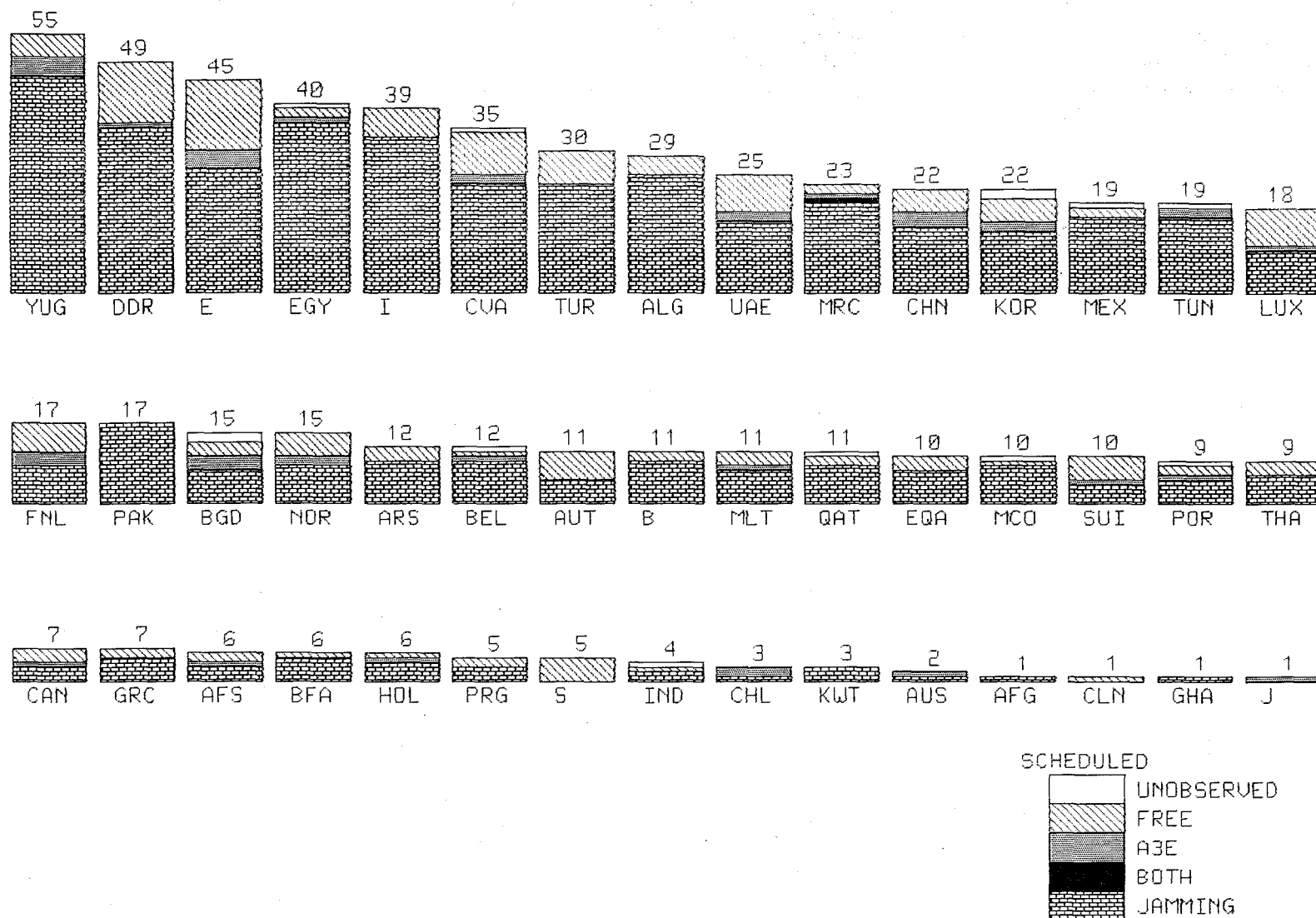


Figure 9. Bar charts of observations from Ned Horst Den Berg, Netherlands, depicting the number of time periods each administration was scheduled for monitoring. Also indicated within the bar chart for each administration is the number of scheduled time periods that were either unobserved, free of interference, interfered with by other broadcasters (A3E), jammed, or both jammed and interfered with by other broadcasters.

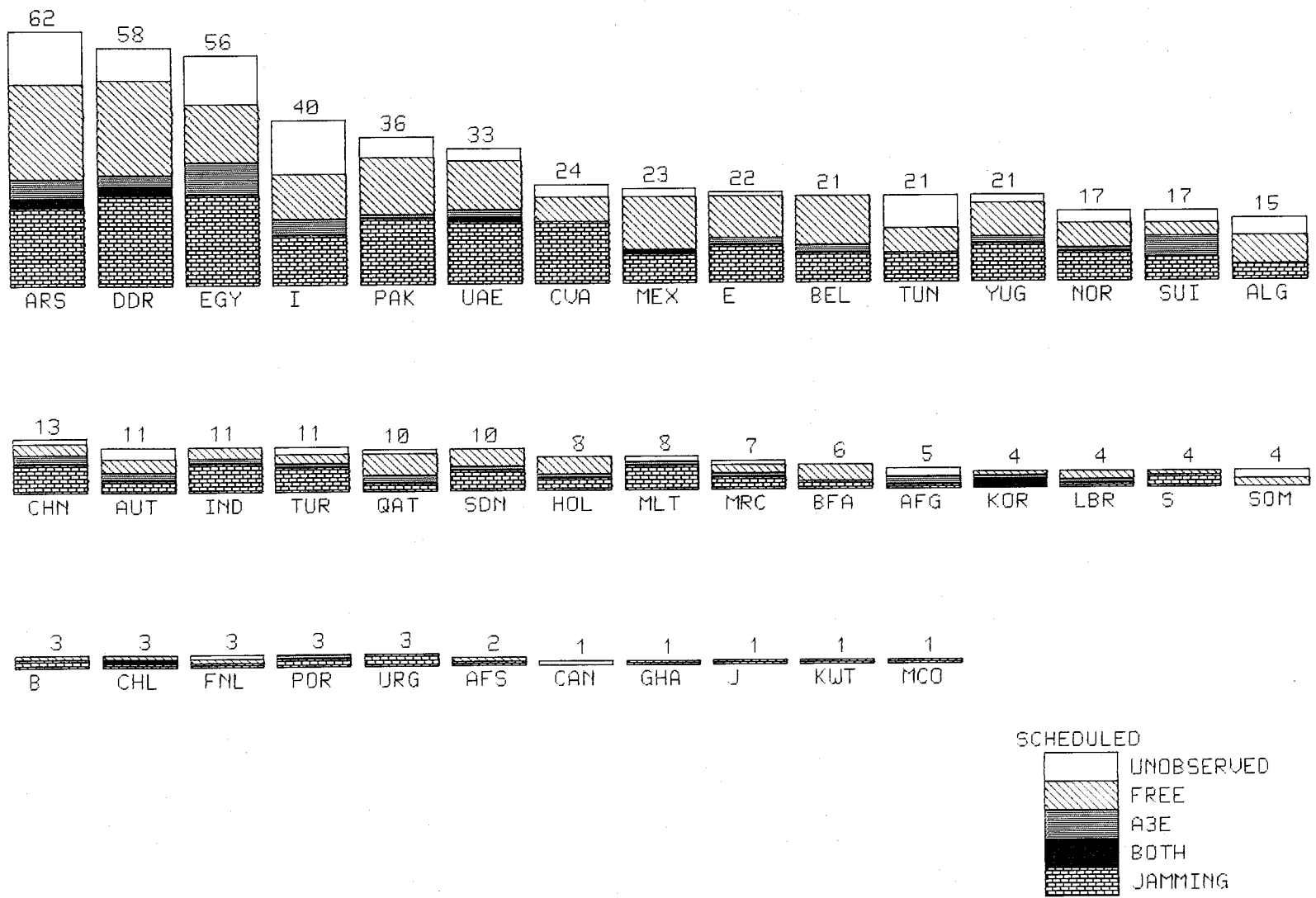


Figure 10. Bar charts of observations from Kigali, Rwanda, depicting the number of time periods each administration was scheduled for monitoring. Also indicated within the bar chart for each administration is the number of scheduled time periods that were either unobserved, free of interference, interfered with by other broadcasters (A3E), jammed, or both jammed and interfered with by other broadcasters.

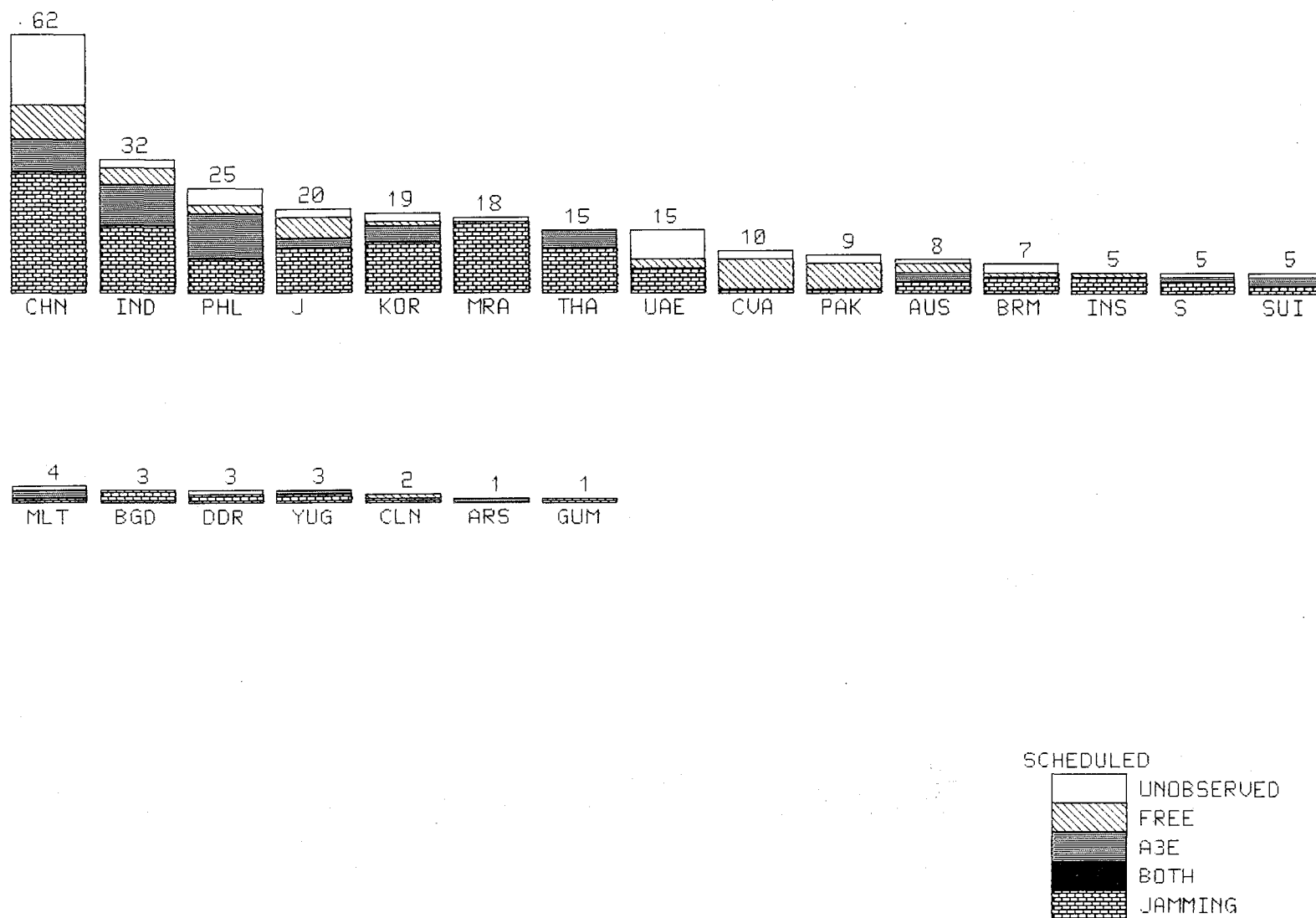


Figure 11. Bar charts of observations from Pakistan depicting the number of time periods each administration was scheduled for monitoring. Also indicated within the bar chart for each administration is the number of scheduled time periods that were either unobserved, free of interference, interfered with by other broadcasters (A3E), jammed, or both jammed and interfered with by other broadcasters.

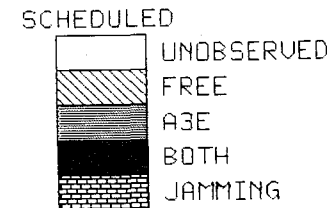
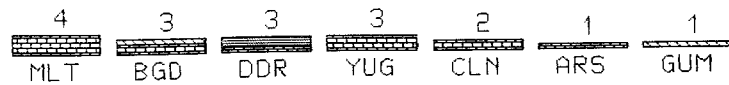
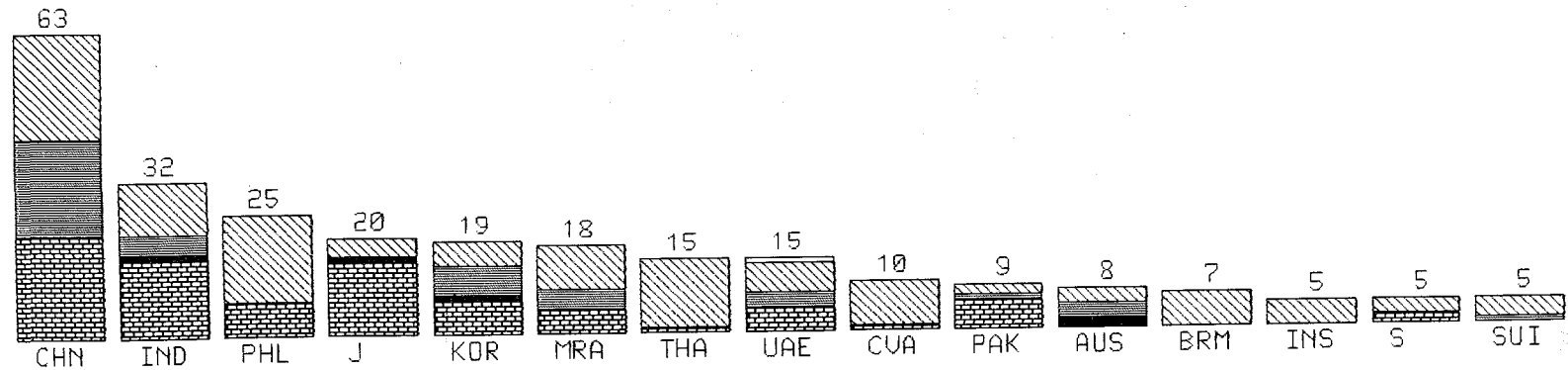


Figure 12. Bar charts of observations from Hong Kong depicting the number of time periods each administration was scheduled for monitoring. Also indicated within the bar chart for each administration is the number of scheduled time periods that were either unobserved, free of interference, interfered with by other broadcasters (A3E), jammed, or both jammed and interfered with by other broadcasters.

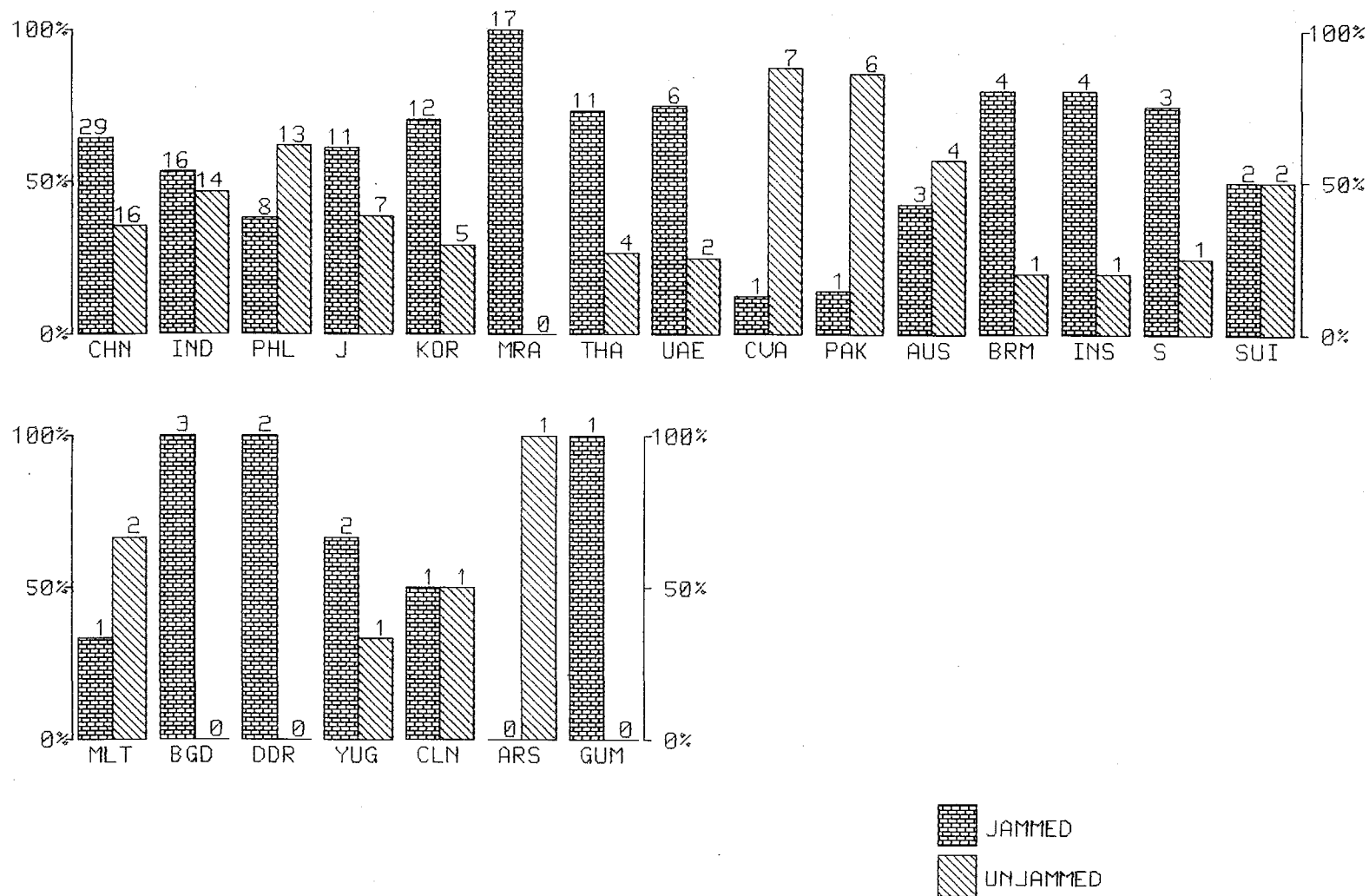


Figure 13. Bar chart of observations from Islamabad, Pakistan showing the percentage of jammed to unjammed time periods for each broadcast administration.

## 5. SUMMARY AND CONCLUSIONS

The results presented in this report for the June 1986 IFRB monitoring period compliment those given by Sowers et al. (1985 and 1986) for the October 1984, March/April 1985, and the January 1986 monitoring periods. Ninety-nine emitters of harmful interference have been located during June 1986 with 81 being within the boundaries of the Soviet Union. The other 18 locations were placed in Poland (3), Czechoslovakia (7), Bulgaria (6), Iraq (1), and China (1). Although several transmitters have been found in Poland, they are usually either jammers associated with few observations or they are jammers that do not locate within the Polish borders regularly.

Jammers located in Czechoslovakia usually cluster near Prague, and jammers found in Bulgaria regularly group near Sofia. In the Soviet Union, many of the jammers cluster around major cities such as Moscow, Leningrad, Tashkent, and Khabarovsk. Groups of jammers that are clustered near major cities may not represent individual transmit locations; it is possible that the same transmitter facility could be emitting various Morse code identifiers at different times. It should be mentioned, however, that many of the markers did not change in location and broadcast language which they were targeted against over the time span of the monitoring periods.

The Morse code identifier accompanying the jamming signals exhibits trends which illustrate that the jammers and their associated languages go beyond political boundaries. The configuration of the jammer (either letter-letter, letter-number, or number-letter) correlates to the language attribute of the jamming signal. The letter-letter identifiers were located within the Soviet Union and were usually associated with the Russian language and on a few occasions with one of the dialects spoken within the Soviet Union. Most of the letter-number identifiers were located in Eastern bloc countries and were primarily associated with either Czechoslovakian or Bulgarian language broadcasts. A few of the letter-number identifiers, which were also located in Eastern bloc countries, were found jamming Russian language broadcasts regularly. The number-letter identifiers almost always jam Polish language broadcasts and are usually found in the Soviet Union.

Although the exact number of transmitters and frequency hours employed for the purposes of jamming cannot be ascertained directly, a reasonable estimate of the magnitude of jamming follows from the statistics of the numbers of programs that are directly jammed. As in the past, the statistics developed



in this report show that Radio Free Europe and Radio Liberty were heavily jammed on most of their broadcasts. Other broadcasts were regularly jammed on the Russian, Polish, Czechoslovakian, and Bulgarian languages. It was also pointed out in the report that broadcasts that were targeted for jamming were not the only parties affected by jamming. The third-party monitoring observations clearly show that jamming was affecting other broadcasts into Europe which were located on frequencies that are either cochannel or adjacent-channel to known jammed frequencies. It is readily apparent that no telecommunication service--the high frequency broadcast service in particular --can be efficiently organized and utilized in the presence of such disruptive behavior.

#### 6. ACKNOWLEDGMENT

The data used in this report were made available to us through the outstanding efforts of Mr. Ian Davey, BBC, United Kingdom; Mr. Thormod Boe, Norwegian Telecommunications Administration; Mr. W. van Duijn, Chief of Netherlands Monitoring Stations; Mr. R.W. Jones, Department of Communications, Canada; Mr. E. Nissam, Ministry of Telecommunications, Israel; Mr. J. Nitsan, BEZEQ, Israel; Mr. Nam Hee Park, Ministry of Communications, Republic of Korea; Mr. Zimmerman, Chief of Monitoring Systems, Federal Republic of Germany; Mr. Gunter Roessler and Mr. Peter Senger, Deutsche Welle, Federal Republic of Germany; Mr. John Hudak and Mr. Michael Ingram, FCC, United States; Mr. Phil Goodwin and Mr. John Wood, Voice of America.

The continuing interest in this program displayed by Mr. Anatole Schub and Mr. Warren Richards, Department of State; Dr. David Cohen and Mr. Larry Palmer, NTIA; Mr. Hugh Fallis and Mr. Stanley Leinwoll, RFE/RL; and Mr. George Jacobs, BIB, is greatly appreciated. Our appreciation also goes to Mr. Angelo Manginelli, BIB, and to Dr. Robert Frese, Director of Engineering, Voice of America, for their continued support of our activities and to Mr. Norbert Schroeder, Voice of America, for his encouragement and oversight of our efforts.

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- IFRB (1985b), Circular-letter No. 630, dated September 9, 1985, Subject: Improvement in the use of the HF bands allocated to the broadcasting service by avoiding harmful interference, International Frequency Registration Board, Geneva, Switzerland.
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- Sowers, M.W., G.R. Hand, and C.M. Rush (1985), Monitoring of harmful interference to the HF broadcasting service: II. Results of the January 1986 coordinated monitoring period, NTIA Report 86-206, October, 125 pp. (NITS Order No. PB XX-XXXXXX).

APPENDIX A: MONITORING DATA OBSERVED DURING JUNE 1986

#	ID	DA	TIME	FREQ	LANG	WHO	LOCATION	SMA	SMI	ORIEN	LAT	LONG	-----					
1	**	11	1113	5950	????	??????????????		0	0	0	1.62S	105.49E	AN 282D	DS 305D				
2	**	9	1735	5960	????	??????????????		0	0	0	25.35N	50.22E	BL 120C	KO 110C				
3	**	9	1947	5960	????	??????????????		0	0	0	33.44N	46.53E	NO 115B	N3 150B				
4	**	13	0820	5980	????	??????????????		0	0	0	18.94S	96.44E	LR 18D	BE 30D				
5	**	9	1022	5990	????	??????????????	231	53	148		54.81N	41.80E	NO 85C	N1 115B	N2 133B	N3 141B		
6	**	9	1525	5995	????	??????????????		0	0	0	0.00N	0.00E	b1 100B	it 116B	kr 108B			
7	**	11	2322	5995	????	??????????????		0	0	0	49.30N	41.74E	N3 150B	N2 135C				
8	**	12	0018	5995	????	??????????????	971	187	158		34.80N	45.55E	BE 48D	FL 41D	LR 45D	SS 42D	NO 115B	N2 140B
													N3 150B					
9	**	14	0954	6005	????	??????????????	128	41	135		53.36N	39.71E	NO 92A	N3 151B	N1 116B	N2 136B		
10	**	10	1053	6055	????	??????????????		0	0	0	7.71N	104.80E	AN 287D	DS 314D				
11	**	10	2146	6080	????	??????????????	265	71	149		36.09N	43.68E	KO 105B	BL 118B	IT 112B	NO 113A	N2 142A	N3 153A
12	**	13	2325	6080	????	??????????????	4265	251	141		21.33N	55.43E	KO 110B	BL 118B	IT 115C	KR 108B		
13	**	13	1748	6145	????	??????????????	2475	343	153		31.82N	75.99E	N3 116B	NO 88B	N2 106C			
14	**	11	0727	6165	????	??????????????		0	0	0	65.24N	36.80E	N3 135B	N2 107B				
15	**	11	0723	6185	????	??????????????		0	0	0	53.62N	40.44E	NO 90B	N3 149B				
16	**	17	0842	7105	????	??????????????	1954	616	45		28.30N	111.64E	AN 292B	WP 297B	LV 313B			
17	**	17	0943	7105	????	??????????????	1760	495	43		27.52N	115.67E	AN 292B	WP 295B	LV 313B	FE 304B	DS 316B	
18	**	17	0346	7110	????	??????????????	637	140	156		40.84N	43.69E	NO 110B	N3 150B	N2 140B			
19	**	17	1446	7110	????	??????????????	379	85	155		35.77N	44.89E	NE 102B	N3 153A	N2 136A	NO 117A		
20	**	17	1530	7110	????	??????????????	684	59	130		39.08N	36.26E	KR 110A	IT 115C	KO 103B	BL 120C		
21	**	18	0654	7110	????	??????????????		0	0	0	35.73N	44.60E	N2 140B	NO 115A				
22	**	18	2000	7110	????	??????????????	333	56	123		45.09N	30.26E	KR 104C	KO 92C	BL 120D	IT 114B		
23	**	20	0320	7110	????	??????????????	11796	424	109		52.07S	138.72E	IT 112C	KR 110A	ke 100C	BL 110C		
24	**	17	0840	7150	????	??????????????	4718	308	47		49.83N	136.84E	AN 290B	LV 317B	FE 309B			
25	**	17	0940	7150	????	??????????????	1791	501	43		26.55N	115.07E	WP 294B	LV 313B	AN 291B	DS 318B	FE 304B	
26	**	17	1440	7150	????	??????????????	1872	637	55		33.83N	120.02E	DS 321B	FE 311B	WP 300B			
27	**	21	0546	7155	????	??????????????		0	0	0	39.70N	40.90E	NO 115A	N2 143B				
28	**	19	1117	7180	????	??????????????		0	0	0	54.94N	19.60E	NO 111A	N2 172B				
29	**	17	1616	7215	????	??????????????	193	29	127		45.18N	24.03E	IT 130C	BL 125B	KO 95C	KR 113A	ne 100B	
30	**	19	1723	7215	????	??????????????		0	0	0	32.43N	47.34E	NO 115A	N2 138B				
31	**	19	1710	7250	????	??????????????	1780	537	43		27.00N	115.48E	LV 314B	AN 288B	WP 294B	FE 308B		
32	**	20	1848	7250	????	??????????????	1653	565	45		28.54N	119.12E	WP 295B	AN 286B	FE 308B			
33	**	24	0225	9550	????	??????????????	1712	287	104		60.51N	12.62W	AL 41B	DS 31B	PS 36B	KI 34B	LV 31B	
34	**	27	0219	9550	????	??????????????		0	0	0	32.07N	27.64E	AN 2B	FE 25B				
35	**	29	1516	9565	????	??????????????		0	0	0	62.74N	162.61E	LV 325B	AN 295B				
36	**	24	1049	9575	????	??????????????	106	32	154		56.14N	37.68E	NO 85B	N3 152A	N1 121B	N2 129B		
37	**	24	1552	9575	????	??????????????	1048	158	154		37.35N	42.97E	N2 140B	N1 135B	NO 115B			
38	**	28	1123	9575	????	??????????????	2839	464	110		47.97S	166.41E	KO 100C	IT 80C	KR 80C	it 113A		
39	**	29	1316	9600	????	??????????????	318	61	142		35.88N	43.59E	KR 107C	KO 102B	BL 116A	IT 117B	NO 115A	N2 142A
													N1 130B					
40	**	29	1516	9600	????	??????????????	859	139	154		39.45N	41.23E	NO 115B	N1 134B	N2 143B			
41	**	26	1007	9630	????	??????????????	1607	499	46		40.57N	116.80E	LV 316B	AN 296B	WP 308B			
42	**	29	1625	9630	????	??????????????	657	179	55		54.03N	137.74E	WP 327B	FE 312B	DS 322B	LV 319B	AN 295B	LV 319B
													DS 325B	WP 315B	FE 313B	AN 295B		
43	**	29	1838	9630	????	??????????????	11294	727	31		12.01N	99.36E	AN 294B	DS 320B	LV 316B			
44	**	28	1051	9680	????	??????????????	148	85	30		6.11N	79.73W	BE 199B	SS 228B	PS 170B	AL 172B	f1 3B	KI 136B
45	**	23	2113	9690	????	??????????????	1051	780	179		2.83S	48.96E	lv 308B	WP 300B	DS 34B	FE 18B		
46	**	24	1335	9690	????	??????????????	11125	630	40		39.03N	120.25E	LV 317B	DS 322B	FE 315B			
47	**	26	1350	9690	????	??????????????	1699	516	38		30.72N	109.76E	KI 327B	GI 325B	LV 323B	AN 300B	WP 297B	
48	**	26	1420	9690	????	??????????????	1622	467	40		30.20N	115.10E	WP 296B	DS 320B	LV 323B	AN 289B	KI 325B	GI 328B
49	**	26	1840	9700	????	??????????????		0	0	0	46.48N	135.31E	AN 286B	DS 321B				
50	**	25	1436	9715	????	??????????????	1519	156	98		60.27N	167.37W	DS 326B	FE 311B	LV 323B			
51	**	28	1447	9715	????	??????????????	649	282	84		58.18N	161.38E	DS 323B	WP 331B	FE 310B	LV 324B		
52	**	24	0940	9735	????	??????????????	1129	362	49		41.02N	130.89E	AN 287B	WP 306B	KI 319B	FE 305B	LV 315B	
53	**	23	0849	9745	????	??????????????		0	0	0	0.00N	0.00E	b1 115A	kr 66A				
54	**	24	0846	9745	????	??????????????	984	174	156		35.98N	45.07E	NO 115B	N3 152B	N1 130B			

55=**	26	0835	9745	????	????????????	603	64	129	37.36N	38 51E	IT 120C	KO 105A	BL 120B						
56=**	27	0610	9745	????	????????????	1439	825	148	31.87N	49 29E	BE 49B	WP 333B	FL 42B						
57=**	28	0327	9745	????	????????????	0	0	0	21.30N	55 14E	KR 110B	BL 118C							
58=**	29	0522	9745	????	????????????	0	0	0	46.37N	54 99E	WP 337B	AN 342B							
59=**	23	0552	9770	????	????????????	2916	608	34	14.49S	109 14E	ps 140B	AL 332B	AN 272B	LV 286B	FE 287B				
60=**	24	1126	9770	????	????????????	0	0	0	55.51N	21 06E	NO 105B	N1 155B							
61=**	29	0853	9770	????	????????????	0	0	0	55.00N	20 96E	NO 108B	N1 156B							
62=**	28	0516	9780	????	????????????	0	0	0	19.92N	39 37E	FL 58B	SS 66B							
63=**	13	1433	11685	????	????????????	0	0	0	36.38N	33 35E	N3 167A	NO 129A							
64=**	10	0446	11705	????	????????????	0	0	0	0.00N	0 00E	it 65A	b1 68A	ko 42A						
65=**	9	1328	11715	????	????????????	476	90	151	35.05N	46 07E	NO 115A	NO 113A	N3 150A						
66=**	10	1440	11715	????	????????????	0	0	0	24.49N	55 23E	AL 36D	SS 55D							
67=**	13	1348	11715	????	????????????	548	110	156	34.39N	46 00E	NO 115A	N3 151A	N2 135B						
68=**	14	0053	11715	????	????????????	3367	925	142	29.88N	30 57E	FE 22D	AN 1D	BE 61D	PS 51D	DS 40D	LV 20D			
											CA 59D	AL 48D	FL 53D	GI 45D	KI 46D				
69=**	14	1340	11715	????	????????????	591	122	156	33.31N	46 58E	PS 43D	FL 31D	WP 333D	KI 36D	LR 48D	AL 40D			
											BE 51D	SS 54D	NO 115A	N3 150A					
70=**	14	1558	11715	????	????????????	0	0	0	26.61N	53 51E	NO 113A	N2 133B							
71=**	15	1448	11715	????	????????????	6011	309	144	14.33N	61 03E	IT 113B	BL 118B	KO 110B	KR 110B					
72=**	10	1740	11735	????	????????????	2425	752	51	48.08N	134 66E	AN 289D	FE 310D	GI 331D	WP 315D	LV 313D				
73=**	10	1252	11750	????	????????????	0	0	0	59.29N	48 26W	AL 41D	BE 33D							
74=**	11	0813	11750	????	????????????	5880	1140	107	36.88N	3 44E	FL 56D	LR 65D	SS 58D						
75=**	14	1140	11755	????	????????????	0	0	0	28.68N	123 57E	FE 306D	WP 294D							
76=**	11	2016	11760	????	????????????	208	29	118	46.44N	29 60E	IT 113B	BL 115B	KO 90B	KR 98A	AL 35D	BE 44D			
											CA 42D	FL 37D	GI 35D	LR 39D	PS 38D	SS 44D			
77=**	12	2050	11760	????	????????????	32111	1709	140	37.38N	49 41E	BE 44D	FL 39D	PS 36D						
78=**	10	1150	11775	????	????????????	5213	1389	40	18.54N	107 75E	AN 282D	DS 312D	FE 329D	WP 290D	LV 311D				
79=**	11	1017	11775	????	????????????	4224	1224	45	25.33N	119 67E	AN 288D	DS 318D	FE 305D	WP 294D	LV 293D				
80=**	11	1147	11775	????	????????????	0	0	0	0.00N	0 00E	an 289D	ds 318D	fe 303D						
81=**	11	1242	11775	????	????????????	4293	1553	42	28.05N	113 73E	AN 289D	GI 332D	WP 296D						
82=**	11	1550	11775	????	????????????	3246	1083	52	40.54N	127 80E	DS 320D	FE 310D	GI 328D	WP 306D	KI 326D	LV 314D			
83=**	13	1145	11775	????	????????????	5875	1774	50	22.05N	112 62E	FE 308D	LV 313D	WP 290D						
84=**	13	1240	11775	????	????????????	4499	1342	39	21.44N	112 89E	DS 317D	AN 287D	GI 330D	WP 290D	FE 308D				
85=**	13	1445	11775	????	????????????	16994	1280	36	31.02N	118 42E	AN 288D	DS 318D	FE 310D	LV 313D					
86=**	14	1010	11775	????	????????????	4338	1229	43	27.40N	116 66E	AN 286D	DS 318D	FE 310D	WP 294D	LV 313D				
87=**	14	1125	11775	????	????????????	4086	1295	45	28.03N	119 92E	DS 318D	FE 308D	WP 294D	AN 284D					
88=**	15	1335	11775	????	????????????	4626	1278	42	25.87N	113 21E	WP 294D	AN 290D	DS 318D	LV 313D	FE 310D				
89=**	9	1310	11780	????	????????????	13876	1159	41	40.15N	126 62E	AN 287D	DS 322D	LV 313D						
90=**	9	0621	11780	????	????????????	0	0	0	0.00N	0 00E	n0 114B	n2 126B	n3 149B						
91=**	10	0850	11795	????	????????????	0	0	0	8.97N	111 21E	AN 282D	DS 309D							
92=**	10	0446	11805	????	????????????	0	0	0	0.00N	0 00E	it 66B	b1 68B	ko 42B						
93=**	13	1345	11820	????	????????????	23618	1668	152	.12N	67 76E	KI 30D	AL 35D	BE 53D						
94=**	10	0825	11905	????	????????????	4401	1489	47	27.92N	117 78E	AN 287D	DS 315D	WP 295D						
95=**	11	0848	11905	????	????????????	0	0	0	8.17N	106 18E	AN 286D	DS 313D							
96=**	12	0922	11905	????	????????????	4757	1426	43	22.00N	114 01E	AN 288D	FE 305D	WP 290D	LV 310D					
97=**	13	0628	11905	????	????????????	4311	1229	44	26.66N	117 53E	LV 311D	FE 308D	WP 293D	AN 285D					
98=**	9	1525	11940	????	????????????	923	177	158	35.89N	44 47E	NO 115B	N2 140B	N3 152B						
99=**	10	1728	11940	????	????????????	0	0	0	39.91N	44 86E	N3 150A	NO 110B							
100=**	10	1958	11940	????	????????????	0	0	0	37.08N	43 39E	NO 115A	N3 153A							
101=**	10	2120	11940	????	????????????	0	0	0	34.43N	50 18E	NO 110A	N3 145A							
102=**	11	1749	11940	????	????????????	10613	1395	139	42.01N	38 61E	AL 42D	FL 41D	GI 28D	LR 41D					
103=**	12	2021	11940	????	????????????	10405	1666	150	14.35N	64 21E	BE 48D	FL 40D	GI 19D	PS 42D					
104=**	14	1855	11940	????	????????????	0	0	0	43.84N	40 28E	N3 155A	NO 110A							
105=**	14	2116	11940	????	????????????	547	110	156	34.41N	45 90E	N3 151A	NO 115A	N2 136B						
106=**	14	0929	11945	????	????????????	50	23	145	55.69N	27 83E	N1 138A	N3 172A	NO 95A						
107=**	11	0611	11975	????	????????????	2338	995	128	21.44S	84 70E	AN 289D	FL 60D	PS 55D						
108=**	13	0410	11975	????	????????????	3374	966	117	47.30N	4 43W	DS 44D	LV 35D	FE 38D	FL 44D	PS 56D				
109=**	13	0527	11975	????	????????????	5535	1222	136	15.16S	74 38E	AL 36D	FL 57D	PS 55D	BE 70D					
110=**	9	0410	11975	????	????????????	8856	1420	129	36.26N	11 85E	DS 45D	KI 50D	LV 35D	PS 55D					
111=**	20	2145	15190	????	????????????	0	0	0	25 77N	67 31E	SS 47B	BE 39B							



169***	21	0848	15215	POLI	RFE	G6	1246	582	5	41.71N	59.98E	AN 337B	DS 1B	FE 356B	SS 44B	WP 339B			
170***	21	1406	15390	POLI	BBC	WOOF	0	0	0	35.33N	69.22E	DS 1B	SS 38B						
171***	23	1722	17735	POLI	RFE	G1	2234	503	161	38.03N	71.91E	LR 23B	GI 10B	DS 359B	AL 16B	SS 36B	PS 18B		
												FL 23B							
172***	24	1746	17735	POLI	RFE	G1	601	298	134	48.55N	67.86E	NE 68B	BE 30B	FL 24B	DS 0B	AL 17B	LV 357B		
												AN 330B	SS 38B						
173***	24	1853	17735	POLI	RFE	G1	1607	616	169	39.93N	66.76E	FL 24B	DS 359B	LV 357B	FE 353B	SS 38B			
174***	23	1648	17865	POLI	RFE	G1	2354	807	161	35.41N	67.08E	DS 2B	GI 13B	SS 39B					
175***	12	0005	6050	RUSS	RL	B6	0	0	0	46.27N	56.22E	LS 62D	SS 36D						
176***	15	1301	6105	RUSS	RL	L9	87	23	73	53.09N	15.12E	U2 75B	KO 32B	KR 70A					
177***	9	0221	6170	RUSS	RL	B2	0	0	0	53.35N	9.68E	BE 50D	SS 39D						
178***	12	0036	6170	RUSS	RL	B2	0	0	0	55.10N	5.60E	GI 38D	SS 37D						
179***	16	2020	7105	RUSS	VOA	KAV051	0	0	0	43.84N	40.28E	NO 110B	N3 155A						
180***	18	0015	7155	RUSS	RL	G2B	0	0	0	57.92N	13.90W	CA 46B	BE 48B						
181***	16	2040	7220	RUSS	RL	B4	0	0	0	28.71N	83.60E	IT 84C	KO 80C						
182***	16	0245	7240	RUSS	VOA	MUN058	4583	699	100	55.76N	1.46W	BE 47D	FL 36D	LR 49D	SS 38D				
183***	18	1557	7255	RUSS	DW		5083	367	45	47.64N	132.42E	AN 289B	DS 327B	LV 315B					
184***	19	1505	7255	RUSS	DW		1789	500	42	27.08N	114.82E	DS 321B	AN 288B	LV 315B	FE 308B	WP 294B			
185***	23	2335	9520	RUSS	RL	B8	0	0	0	51.06N	120.48E	LV 325B	WP 318B						
186***	24	0440	9520	RUSS	RL	B7	1476	416	130	53.86N	24.60E	KI 24B	LR 43B	SS 40B	LV 28B	GI 25B	DS 22B		
187***	26	1352	9520	RUSS	RL	HB	0	0	0	34.58N	124.15E	DS 318B	GI 326B						
188***	27	0505	9520	RUSS	RL	HB	1047	332	53	48.80N	133.08E	LV 318B	DS 323B	WP 315B	AN 290B				
189***	29	2157	9585	RUSS	VOA	MUN058	0	0	0	52.39N	11.94E	PS 41B	SS 40B						
190***	24	1510	9690	RUSS	VOA	KAV051	0	0	0	53.30N	150.72E	FE 310B	LV 316B						
191***	24	0241	9750	RUSS	RL	P4	2026	394	89	60.17N	5.91W	FL 34B	PS 36B	SS 30B					
192***	29	1735	9770	RUSS	BBC	CYPRUS	7048	446	124	51.00N	20.73E	BE 50B	PS 37B	AL 41B					
193***	11	1809	11700	RUSS	IBA		0	0	0	27.17N	41.20E	BE 57D	FL 51D						
194***	9	1221	11705	RUSS	VOA	KAV051	2048	706	56	52.08N	142.40E	AN 289D	DS 311D	WP 320D					
195***	9	2135	11710	RUSS	VOA	WOF066	485	21	62	44.73N	68.33W	BE 54D	FL 41D	LR 40D					
196***	12	1815	11710	RUSS	VOA	WOF066	3544	1262	73	49.59N	135.52E	LV 317D	DS 324D	WP 316D					
197***	10	2022	11770	RUSS	RL	HD	10473	1239	137	42.78N	37.77E	BE 45D	FL 41D	GI 30D	KI 31D	PS 43D			
198***	11	2023	11770	RUSS	RL	HD	5284	1315	122	54.00N	24.32E	GI 29D	LR 42D	SS 36D					
199***	13	1235	11770	RUSS	RL	G8	0	0	0	54.10N	136.60E	BE 345D	GI 330D						
200***	15	2243	11770	RUSS	RL	P1	2544	1142	129	46.33N	18.90E	AN 5D	SS 49D	FL 36D	AL 43D	GI 50D			
201***	11	1852	11805	RUSS	VOA	KAV051	8372	1685	152	8.72S	71.03E	BE 47D	GI 23D	LR 57D					
202***	10	1657	11905	RUSS	DW		6022	1419	151	3.63S	75.08E	BE 49D	FL 43D	GI 10D	PS 44D				
203***	11	1614	11905	RUSS	DW		15873	1560	138	49.77N	32.38E	GI 30D	KI 29D	PS 36D					
204***	11	1738	11905	RUSS	DW		1102	544	93	57.35N	176.95E	DS 330D	FE 307D	WP 339D	LV 312D				
205***	13	0421	11915	RUSS	RL	HC	5143	1234	133	47.72N	20.44E	PS 43D	FE 24D	DS 32D	an 281D	LR 46D			
206***	13	0526	11915	RUSS	RL	HC	12022	1826	142	35.85N	44.91E	PS 42D	FL 40D	GI 28D					
207***	10	2205	11935	RUSS	RL	P5	373	90	153	39.93N	44.85E	LR 42D	SS 43D	NO 110A	N3 150A				
208***	11	1954	11935	RUSS	RL	B4	2160	1010	149	48.40N	35.45E	AN 1D	BE 44D	DS 25D	FE 8D	FL 42D	GI 24D		
												WP 350D	SS 42D						
209***	14	2159	11935	RUSS	RL	P5	0	0	0	18.08S	24.24E	AN 8D	WP 327D						
210***	17	1240	15120	RUSS	VOA	KAV051	1097	603	146	6.70S	96.31E	GI 332B	BE 45B	SS 44B					
211***	18	1212	15120	RUSS	VOA	KAV051	1900	425	116	59.56N	19.22E	BE 41B	GI 28B	SS 31B					
212***	16	0735	15130	RUSS	RL	P2	1538	748	142	63.73N	29.70E	SS 44D	FE 15D	WP 355D	LR 21D	LV 21D	BE 29D		
												DS 20D	AN 358D	PS 22D					
213***	19	0642	15130	RUSS	RL	P2	1652	333	109	67.08N	13.32E	PS 20B	FL 24B	LR 23B	SS 36B	GI 30B			
214***	21	0506	15130	RUSS	RL	P2	990	443	154	7.96S	89.76E	SS 42B	BE 51B	FE 311B	PS 18B	FL 36B			
215***	21	2335	15205	RUSS	RL	G6	877	218	58	58.49N	140.31E	GI 3B	AN 294B	FE 315B	WP 325B	LV 326B			
216***	17	1130	15225	RUSS	VOA	KAV095	0	0	0	0.00N	0.00E	gi 327B	wp 328B	ps 42B					
217***	18	1421	15235	RUSS	VOA	WOF045	0	0	0	58.83N	13.94W	GI 40B	FL 35B						
218***	19	0820	15290	RUSS	RL	P1	1665	565	65	46.91N	126.97E	WP 313B	LV 319B	DS 325B					
219***	19	0935	15290	RUSS	RL	P1	0	0	0	58.24N	172.40W	LV 319B	DS 322B						
220***	19	1219	15290	RUSS	RL	P1+P2	758	104	92	56.61N	37.91E	AL 27B	GI 26B	FL 28B	NE 64B				
221***	20	2121	15290	RUSS	RL	P1	3795	389	128	52.84N	25.99E	LR 39B	PS 37B	KI 30B	GI 31B	BE 45B			
222***	17	0605	15340	RUSS	RL	L1	2042	481	121	56.44N	25.01E	FL 33B	GI 25B	PS 39B	SS 33B				
223***	17	1013	15340	RUSS	RL	L1	740	336	150	15.59S	94.23E	AN 290B	FL 33B	LR 47B	SS 37B	BE 45B			
224***	17	2105	15355	RUSS	RL	G7	0	0	0	47.03N	43.24E	SS 40B	LR 37B						

225***	22	0105	15355	RUSS	RL	G1	2940	436	7	64.12N	54.39E	AN 347B	FE 2B	LV 1B				
226***	22	1915	15355	RUSS	RL	G7	3219	612	134	38.91N	44.69E	PS 38B	SS 47B	AL 36B	FL 39B			
227***	18	1947	15370	RUSS	RL	L5	1326	901	155	35.53N	50.57E	SS 45B	GI 28B	WP 332B				
228***	19	0450	15370	RUSS	RL	HA	1746	659	145	55.68N	41.36E	GI 19B	SS 34B	LV 12B				
229***	19	2013	15370	RUSS	RL	L5	2636	519	137	45.95N	44.79E	FL 33B	GI 27B	LR 34B	PS 33B	SS 43B		
230***	21	0606	15380	RUSS	RL	P3	1787	316	104	52.07N	58W	LR 50B	SS 40B	BE 54B				
231***	17	0910	15410	RUSS	VOA	PHT349	0	0	0	51.91N	146.85W	DS 318B	LV 317B					
232***	21	0905	15585	RUSS	IBA		951	538	140	55.11N	33.42E	BE 36B	SS 41B	AN 359B				
233***	24	0637	17770	RUSS	RL	P6	0	0	0	19.36N	26.86E	AN 3B	WP 353B					
234***	19	1146	21735	RUSS	RL	G3A	3729	632	146	13.59N	86.15E	NE 90B	SS 39B	FL 20B				
235***	16	0448	7215	TUR	????		602	100	157	33.38N	46.93E	NO 115A	N1 130A	N3 150A				
236***	19	1952	7215	TUR	????		0	0	0	50.84N	26.33E	NO 115B	N2 160B					
237***	22	1946	7215	TUR	????		0	0	0	35.73N	44.60E	NO 115B	N2 140B					
238***	24	0312	9660	UKR	RL	L3	1099	353	139	51.16N	30.47E	DS 28B	FL 36B	AL 36B	AN 359B	PS 36B	BE 44B	
												GI 29B	KI 29B					
239***	27	0448	9660	UKR	RL	L3	2683	489	104	53.34N	10.08E	FL 37B	PS 42B	SS 40B				
240***	11	0410	11885	UKR	RL	P4	2783	1458	158	11.40N	56.12E	an 291D	DS 328D	FL 41D	WP 347D	KI 40D	LV 23D	
												PS 39D						
241***	12	2016	11885	UKR	RL	L6	3561	2251	15	20.79N	77.79E	ds 104D	WP 319D	LV 320D	FL 34D			
242***	14	0444	11885	UKR	RL	P4	2755	1392	157	28.96N	49.58E	FL 40D	DS 19D	WP 315D	LV 21D	PS 43D	SS 42D	
												FE 14D						
243***	16	1622	15380	UKR	RL	P3	1290	167	61	52.32N	52.81W	BE 47D	FL 36D	GI 55D				
244***	24	1651	17895	UKR	RL	P5	0	0	0	43.85N	27.32E	SS 47B	AN 2B					
245***	17	2335	7135	UZBE	VOA	KAV105	0	0	0	55.79N	1.89E	SS 36B	BE 49B					
246***	19	1317	15280	UZBE	VOA	WOF086	1447	569	145	40.31N	43.03E	WP 343B	PS 37B	BE 49B	FL 38B	DS 19B		
247***	21	2246	7240	YUG	????		88	26	77	50.00N	18.15E	IT 120C	KO 65A	KR 100C				
248=1D	10	0830	5960	????	????????????????		714	100	97	51.36S	176.62W	BL 90B	IT 65D	KR 81C				
249=1D	13	0452	5965	????	????????????????		0	0	0	42.48N	56.34E	KR 85B	BL 92A					
250=1D	10	2046	6125	????	????????????????		0	0	0	51.78N	27.60E	NO 110A	N1 145B					
251=1D	16	0646	7185	????	????????????????		110	22	94	51.64N	28.19E	BL 90A	IT 93B	KO 65A	KR 84D			
252=1D	12	1731	5970	POLI	RFE B6		0	0	0	49.62N	35.49E	U2 82C	NO 105C					
253=1D	9	2101	6060	POLI	VOA WOF075		108	75	130	54.21N	35.26E	U2 70B	U2 70B	n0 108B	N3 158B			
254=1D	11	0501	6160	POLI	VOA WOF074		557	34	95	51.68N	15.27E	U2 86B	U2 86B	KR 84B				
255=1D	10	0535	6160	POLI	VOA WOF074		0	0	0	46.82N	39.44E	NO 106B	N3 155C					
256=1D	11	0515	6170	POLI	VOA KAV355		312	69	142	49.69N	31.59E	SS 39D	N1 140B	NO 110B				
257=1D	12	0531	6170	POLI	VOA KAV355		0	0	0	0.00N	0.00E	u2 80B	ko 67B	kr 91A				
258=1D	16	0315	7190	POLI	RFE G2B		100	46	93	56.47N	17.64E	FL 30D	BE 45D	NE 55B	NO 105B			
259=1D	18	0316	7190	POLI	RFE G2B		0	0	0	52.00N	32.31E	NE 80B	N2 148C					
260=1D	19	0716	7190	POLI	RFE B7		0	0	0	50.52N	29.40E	U2 83A	NO 111B					
261=1D	19	1001	7190	POLI	RFE B7		0	0	0	53.08N	8.74E	U2 75C	NE 68B					
262=1D	20	1231	7190	POLI	RFE B7		0	0	0	49.19S	174.35E	BK 82A	NE 70B					
263=1G	13	0450	5965	????	????????????????		134	20	52	56.67N	21.41E	IT 60B	BL 48A	KO 34A	KR 50C			
264=1G	25	0939	7185	????	????????????????		0	0	0	60.58N	29.80E	N1 118A	N2 140A					
265=1G	23	0641	9700	????	????????????????		0	0	0	0.00N	0.00E	it 80C	ko 60B	b1 55B				
266=1G	23	1016	9700	????	????????????????		0	0	0	0.00N	0.00E	n0 73A	n1 128B	n2 138A				
267=1G	24	1349	9700	????	????????????????		49	21	131	60.01N	30.43E	NO 74A	N2 140A	N1 119A				
268=1G	25	0946	9700	????	????????????????		0	0	0	60.21N	30.61E	N2 139A	NO 73A					
269=1G	25	1345	9700	????	????????????????		37	19	143	60.06N	29.55E	NO 75A	N1 120A	N2 140A	N3 168A			
270=1G	26	1026	9700	????	????????????????		50	21	130	60.16N	30.94E	NO 73A	N1 118A	N2 138A				
271=1G	28	1046	9700	????	????????????????		0	0	0	0.00N	0.00E	n1 120A	n2 135A	n0 73A				
272=1G	28	1200	9700	????	????????????????		50	21	130	60.07N	30.92E	NO 73A	N1 120A	N2 137A				
273=1G	29	0655	9700	????	????????????????		0	0	0	59.64N	32.58E	NO 75B	N2 136B					
274=1G	29	1417	9700	????	????????????????		46	19	128	60.05N	30.60E	NO 73A	N1 121A	N2 138A	NO 75B	N1 116B		
275=1G	11	1320	11715	????	????????????????		0	0	0	61.35N	30.58E	N2 136B	N3 162B					
276=1G	9	1330	11715	????	????????????????		0	0	0	6.15N	76.16E	AL 23D	PS 28D					
277=1G	9	0946	11720	????	????????????????		84	45	146	59.38N	31.59E	NO 77B	N2 137B	N3 163B				
278=1G	11	1146	11720	????	????????????????		82	60	136	59.97N	31.17E	NO 74B	N3 162B	AL 25D	SS 32D			
279=1G	9	1216	11720	????	????????????????		171	25	65	59.29N	29.42E	IT 55A	BL 55C	KO 38A	KR 50C			
280=1G	15	1216	11720	????	????????????????		0	0	0	59.64N	32.58E	NO 75B	N2 136B					
281=1G	13	1316	11720	ARAB	BBC CYPRUS		53	30	104	60.08N	33.94E	IT 50B	BL 50C	NO 74A	N3 152B	N2 133B		











498=66	12	0815	11905	????	??????????????	4563	1271	42	25	42N	114	51E	AN 288D	DS 318D	FE 309D	WP 293D	LV 312D			
499=66	12	2340	11905	????	??????????????	4396	1249	44	25	19N	117	23E	FE 306D	AN 286D	WP 292D	LV 311D	DS 315D			
500=66	13	0742	11905	????	??????????????	4106	1188	44	28	74N	119	20E	AN 287D	DS 318D	FE 305D	WP 295D	LV 311D			
501=66	13	0840	11905	????	??????????????	6789	1842	51	20	79N	110	33E	LV 311D	DS 318D	WP 290D					
502=66	14	0638	11905	????	??????????????	4495	1364	44	24	97N	116	08E	FE 308D	WP 292D	LV 311D	AN 286D				
503=66	14	0744	11905	????	??????????????	4220	1301	45	27	57N	118	43E	AN 286D	FE 307D	WP 294D	LV 311D				
504=66	14	0820	11905	????	??????????????	4399	1243	43	26	37N	116	41E	DS 322D	FE 307D	WP 293D	LV 311D	AN 286D			
505=66	15	0423	11905	????	??????????????	4306	1474	45	25	46N	118	54E	AN 284D	WP 292D	FE 308D					
506=66	15	0640	11905	????	??????????????	4568	1383	44	23	98N	115	63E	LV 311D	FE 309D	AN 285D	WP 291D				
507=66	15	0810	11905	????	??????????????	3853	1149	46	29	24N	122	44E	DS 311D	AN 284D	LV 311D	WP 295D	FE 306D			
508=66	15	0940	11905	????	??????????????	4099	1197	45	27	13N	120	29E	DS 310D	FE 308D	WP 294D	LV 308D	AN 285D			
509=66	15	2323	11905	????	??????????????	4330	1329	44	26	26N	117	67E	WP 293D	LV 310D	AN 286D	FE 307D				
510=66	9	0948	11905	????	??????????????	0	0	0	42	16N	131	47E	AN 285D	LV 313D						
511=66	20	1352	15150	????	??????????????	0	0	0	28	45N	106	85E	DS 326B	LV 318B						
512=66	16	0419	15415	????	??????????????	13072	1616	34	16	66S	83	58E	FE 315D	LV 307D	AN 297D					
513=66	23	1421	9565	ARM	VOA KAV095	1024	388	68	52	46N	140	63E	FE 315B	WP 320B	LV 313B	DS 328B				
514=66	18	1835	7255	BULG	DW	1553	490	45	32	75N	120	06E	AN 289B	DS 320B	FE 307B	WP 299B				
515=66	16	1057	7150	CZEC	DW	2966	950	47	36	05N	128	98E	FE 306D	WP 299D	LV 313D	PS 313D	AN 287D	DS 318D		
516=66	17	1110	7150	CZEC	DW	1430	425	44	30	30N	123	54E	WP 295B	AN 284B	DS 315B	FE 308B	LV 311B	GI 318B		
517=66	19	1109	7150	CZEC	DW	1966	581	51	28	83N	118	99E	DS 320B	FE 303B	LV 317B	WP 294B				
518=66	20	1038	7150	CZEC	DW	1472	536	64	38	38N	132	53E	WP 303B	DS 317B	FE 306B					
519=66	20	1433	7245	EST	VOA MUN058	9022	571	46	41	90N	129	32E	DS 320B	LV 314B	FE 311B					
520=66	13	0735	11895	HUNG	RFE G3B	0	0	0	29	36N	118	13E	WP 296D	LV 311D						
521=66	21	1332	7245	LAT	VOA MUN058	2184	630	46	25	33N	110	15E	FE 312B	WP 294B	LV 316B	DS 322B				
522=66	19	1409	7245	LITH	VOA MUN058	2022	595	49	28	47N	116	33E	FE 308B	DS 320B	WP 295B	LV 315B				
523=66	24	1537	9705	POLI	RFE B2	4489	636	132	52	68N	47	73E	LR 34B	SS 35B	FL 23B					
524=66	18	1541	7255	RUSS	DW	12842	668	32	21	14N	109	57E	AN 289B	DS 319B	FE 313B					
525=66	18	1635	7255	RUSS	DW	1975	537	41	21	41N	111	03E	DS 318B	LV 313B	AN 288B	FE 310B	WP 290B			
526=66	21	1739	7255	RUSS	DW	1661	515	45	27	92N	119	18E	WP 294B	AN 286B	FE 305B	LV 312B				
527=66	23	1619	9690	RUSS	VOA KAV051	1097	343	48	44	32N	130	14E	FE 308B	GI 329B	AN 289B	LV 316B	WP 310B			
528=66	23	1758	9690	RUSS	VOA KAV051	0	0	0	51	40N	150	67E	FE 308B	LV 314B						
529=66	26	1759	9690	RUSS	VOA KAV051	7474	639	33	9	79N	104	93E	FE 305B	DS 320B	AN 289B	LV 307B				
530=66	9	1206	11780	RUSS	BBC WOOF	1651	549	59	53	50N	150	17E	AN 287D	DS 316D	WP 324D	LV 303D				
531=66	15	1655	11905	RUSS	DW	16340	1323	36	28	50N	118	21E	AN 287D	DS 316D	FE 308D	LV 312D				
532=66	11	1605	11905	RUSS	DW	0	0	0	48	82N	137	02W	DS 318D	LV 320D						
533=66	10	1636	11905	RUSS	DW	3032	916	46	39	25N	127	34E	AN 289D	DS 316D	FE 315D	GI 315D	WP 304D	LV 311D		
534=66	18	1451	15380	RUSS	RL P3	0	0	0	49	98N	142	51E	DS 321B	WP 317B						
535=66	18	1654	7245	UKR	VOA MUN082	2005	541	41	21	13N	109	85E	FE 308B	LV 313B	DS 323B	WP 290B	AN 289B			
536=66	23	1627	9660	UKR	VOA MUN058	760	214	57	54	58N	145	04E	GI 330B	AN 290B	WP 323B	LV 321B	DS 319B	FE 309B		
537=66	10	2146	6095	RUSS	VOA MUN058	0	0	0	55	50N	28	97E	KO 50D	IT 74C						
538=77	10	2250	6080	????	??????????????	4663	942	118	48	56N	13	67E	BE 54D	CA 50D	GI 40D	SS 44D				
539=77	10	2350	6080	????	??????????????	4538	807	109	49	69N	4	71E	BE 56D	CA 53D	FL 42D	SS 44D				
540=77	11	2225	6215	????	??????????????	8123	1359	128	46	23N	34	79E	BE 47D	CA 42D	SS 43D					
541=77	21	2040	7110	????	??????????????	1470	798	151	27	43N	52	33E	SS 53B	BE 50B	AN 340B					
542=77	22	0411	7110	????	??????????????	1372	775	153	36	75N	46	85E	PS 42B	AN 345B	SS 44B					
543=77	22	0521	7110	????	??????????????	0	0	0	39	03N	49	06E	AN 345B	SS 45B						
544=77	22	2049	7110	????	??????????????	0	0	0	31	27N	46	18E	SS 53B	BE 51B						
545=77	20	0552	7155	????	??????????????	0	0	0	35	86N	33	96E	LR 50B	SS 53B						
546=77	24	1451	9575	????	??????????????	2073	309	109	52	07N	7	56E	FL 35B	PS 52B	SS 46B	BE 49B	LR 45B			
547=77	25	1527	9575	????	??????????????	1254	954	137	22	23N	51	70E	WP 322B	PS 50B	SS 52B					
548=77	26	1510	9575	????	??????????????	0	0	0	18	34N	41	42E	WP 333B	AN 349B						
549=77	24	1553	9580	????	??????????????	0	0	0	26	96N	47	28E	AL 41B	WP 332B						
550=77	29	1515	9600	????	??????????????	2533	484	117	42	00N	15	97E	BE 63B	SS 52B	PS 42B					
551=77	11	1144	11715	????	??????????????	0	0	0	36	92N	31	36E	BE 56D	FL 48D						
552=77	13	1238	11715	????	??????????????	16269	1415	136	35	54N	38	58E	PS 47D	BE 50D	FL 46D	AL 42D				
553=77	13	1344	11715	????	??????????????	2817	1368	155	33	19N	47	60E	AL 40D	FL 30D	AN 348D	WP 330D	PS 45D	BE 50D		
554=77	14	1151	11715	????	??????????????	6429	1125	137	35	24N	42	43E	LR 43D	PS 44D	SS 51D	AL 41D	BE 49D	FL 45D		
555=77	15	1443	11715	????	??????????????	3572	1216	144	28	85N	44	56E	GI 31D	CA 51D	KI 35D	SS 59D	BE 51D	AN 349D	PS 43D	
													AL 39D							



602=77	16	0349	7215	TUR	????	3360	1679	136	37	22N	46	28E	FL	43D	BE	48D	WP	337D	SS	44D	
603=77	17	1954	7215	TUR	????	0	0	0	39	39N	42	74E	AN	350B	SS	47B					
604=77	18	2110	7215	TUR	????	0	0	0	37	23N	39	62E	SS	50B	BE	51B					
605=77	18	2243	7215	TUR	????	1315	627	141	35	60N	42	90E	FL	44B	BE	51B	SS	49B	AN	349B	
606=77	19	0522	7215	TUR	????	0	0	0	45	01N	26	62E	SS	46B	FL	43B					
607=77	20	0522	7215	TUR	????	3948	723	132	31	95N	44	74E	LR	45B	SS	53B	PS	43B			
608=77	22	0441	7215	TUR	????	1355	623	142	34	43N	41	56E	AN	348B	BE	55B	PS	45B	SS	46B	
609=7G	18	2015	7255	POLI	BBC WOOF	158	38	70	54	13N	17	35E	IT	80C	BL	54C	KR	69C			
610=7K	18	0849	15110	????	????????????	395	40	103	49	90N	41	51E	KO	72A	BL	85B	KR	81A			
611=7K	22	1351	15150	????	????????????	0	0	0	45	62N	67	56E	DS	2B	BE	29B					
612=7K	18	0748	15205	????	????????????	0	0	0	50	91N	27	51E	BL	95B	KR	84B					
613=7K	23	1346	17740	????	????????????	407	76	132	52	03N	54	77E	NO	83A	N1	99B	N2	116B			
614=7K	23	1511	9705	POLI	RFE B2	0	0	0	5	66S	89	73E	NO	98B	N1	104B					
615=7K	23	1926	9705	POLI	RFE B2	1808	211	143	41	19N	70	20E	N1	100B	NO	84B	N2	105C	NO	85B	
616=7K	23	2216	9705	POLI	RFE G1	757	92	115	53	43N	51	88E	NE	69B	NO	84B	NE	70B	NO	78B	
617=7K	25	1546	9705	POLI	RFE B2	0	0	0	54	32N	16	01E	NE	68B	U2	70C					
618=7K	25	1616	9705	POLI	RFE B2	1233	229	123	50	24S	159	69E	NE	91B	NO	75A	NE	73B	NO	80B	
619=7K	25	1831	9705	POLI	RFE B2	410	70	123	53	53N	52	39E	NO	80A	N1	105B	NE	72B	BE	29B	
620=7K	27	2001	9705	POLI	RFE G1	1137	246	132	44	90N	68	26E	U2	74B	NE	72B	N2	105C			
621=7K	28	2101	9705	POLI	RFE G1	673	54	114	49	47N	48	22E	U2	75B	NO	92B	BL	84A	KR	78C	
622=7K	25	1604	9750	POLI	BBC WOOF	490	137	134	47	46N	64	41E	NO	75B	NE	76B	U2	74B	N3	120B	
623=7K	26	1946	9750	POLI	BBC WOOF	0	0	0	48	88N	54	77E	NE	76B	U2	73B					
624=7K	27	2016	9750	POLI	BBC WOOF	0	0	0	53	31N	12	06E	NE	73B	U2	75B					
625=7K	11	0321	11725	POLI	RFE G4	829	219	113	58	85S	153	79E	NO	98A	U2	73C	N1	98A			
626=7K	12	1946	11915	POLI	VOA TAN044	1742	97	124	45	07N	65	09E	KR	76C	IT	80A	BL	82A	NO	85B	
627=7K	12	2021	11915	POLI	VOA TAN044	1899	356	137	43	31N	66	95E	BE	30D	DS	2D	FE	351D	AN	334D	
628=7K	15	2116	11915	POLI	VOA TAN044	0	0	0	47	61N	60	23E	U2	72B	NO	85A					
629=7K	9	2053	11915	POLI	VOA TAN044	0	0	0	47	36N	59	42E	N3	126B	NO	86B					
630=7K	10	1931	11915	POLI	VOA TAN044	528	76	135	50	78N	59	69E	U2	75C	NO	80A	N1	100A	AN	337D	
631=7K	12	1931	11925	POLI	BBC CYPRUS	1812	315	133	43	42N	66	95E	U2	73C	NO	85B	WP	324D	AN	334D	
632=7K	11	1617	11925	POLI	BBC WOOF	0	0	0	38	45N	72	95E	U2	75B	NO	85C					
633=7K	10	1646	11925	POLI	BBC WOOF	933	218	144	41	85N	67	54E	U2	75B	NO	86B	N3	120B			
634=7K	9	2050	11925	POLI	BBC CYPRUS	0	0	0	41	40N	68	21E	U2	75B	NO	86B					
635=7K	10	1955	11925	POLI	BBC CYPRUS	0	0	0	46	85N	64	10E	NO	83A	N1	100A					
636=7K	10	0501	11945	POLI	BBC CYPRUS	0	0	0	30	94N	84	02E	U2	74B	NO	82B					
637=7K	18	0746	15115	POLI	RFE G3	0	0	0	24	07N	91	96E	NE	77B	NO	80B					
638=7K	18	0916	15115	POLI	RFE G3	0	0	0	37	00N	77	29E	NE	77B	KO	76A					
639=7K	20	0716	15115	POLI	RFE G3	510	134	132	50	91N	63	33E	U2	75B	N2	100B	NO	85B	FE	354B	
640=7K	21	0731	15115	POLI	RFE G3	1124	117	119	47	33N	61	56E	NO	78B	U2	75B	NE	70B	BL	82B	
641=7K	16	1101	15145	POLI	RFE G2	1420	209	129	44	71N	64	18E	U2	74B	U2	74B	NO	85B	AN	339D	
642=7K	16	1821	15145	POLI	RFE G2	0	0	0	40	89N	71	28E	NE	77B	KO	75A					
643=7K	17	1031	15145	POLI	RFE G2	330	57	100	54	26N	32	41E	U2	75B	NE	70B	NO	93C			
644=7K	17	1246	15145	POLI	RFE G2	3072	336	126	44	09N	64	99E	NE	77B	FL	24B	SS	36B			
645=7K	18	0621	15145	POLI	RFE G2	0	0	0	47	44N	67	11E	NO	80C	LV	354B					
646=7K	18	1616	15145	POLI	RFE G2	0	0	0	33	43N	80	54E	NE	78B	NO	83B					
647=7K	18	1746	15145	POLI	RFE G2	1267	240	141	40	43N	70	50E	NE	76B	NO	89B	N2	105B			
648=7K	19	0750	15145	POLI	RFE G2	346	96	128	57	15N	56	93E	NE	66B	NO	66B	N2	104B			
649=7K	19	0818	15145	POLI	RFE G2	364	57	107	55	48N	41	25E	NE	66B	NO	80B	NE	70B	NO	87B	
650=7K	19	0947	15145	POLI	RFE G2	501	126	129	52	44N	63	72E	NE	68B	NE	64B	NO	75B	N2	103B	
651=7K	19	1446	15145	POLI	RFE G2	0	0	0	52	74N	6	72E	NE	63B	U2	77B					
652=7K	20	0716	15145	POLI	RFE G2	829	124	137	43	64N	69	48E	NE	77B	N2	100B	NO	85B	NE	68B	
653=7K	20	1016	15145	POLI	RFE G2	0	0	0	17	19N	96	75E	NE	78B	NO	80B					
654=7K	20	1546	15145	POLI	RFE G2	617	62	121	47	65N	56	67E	ne	65B	KO	66C	BL	84A	IT	82A	
655=7K	21	0516	15145	POLI	RFE G2	624	125	141	40	87N	73	14E	KO	67B	BL	85C	KR	78B	NE	77B	
656=7K	21	1710	15145	POLI	RFE G2	7001	681	10	35	40N	64	66E	AN	332B	LV	358B	FE	351B			
657=7K	19	0822	15215	POLI	RFE G6	203	13	70	52	77N	7	28E	NE	70B	no	88B	U2	76B	NE	66B	
658=7K	21	0746	15215	POLI	RFE G6	1469	144	112	49	55N	51	59E	KO	70C	IT	82B	KR	78D			







774=AN	27	1147	9530	????	?????????????	0	0	0	55.69N	38.94E	BL 68A	IT 72A									
775=AN	9	0305	11875	AZ	RL L6	112	23	76	55.15N	27.61E	DS 22D	FL 34D	NO	90C	KR 67A	BL 67B	KO 49A				
776=AN	10	0337	11875	AZ	RL L6	8704	1249	130	47.93N	38.87E	BE 39D	LR 39D	PS	39D	SS 42D						
777=AN	27	1431	9505	LAT	RFE HB	0	0	0	54.49N	50.30E	U2 65B	NE 67B									
778=AN	9	1405	11970	LAT	RFE P2	0	0	0	0.00N	0.00E	a1 38D	ps 44D	n0	80B							
779=AN	28	1901	9505	LITH	RFE HB	975	110	122	48.65S	173.49E	KR 68B	IT 71A	BL	75A	U2 62B	NE 74B					
780=AN	21	1746	7220	RUSS	RL L2	0	0	0	54.49N	50.31E	NE 67B	U2 65A									
781=AN	24	1531	9520	RUSS	RL B4	135	37	113	55.59N	39.53E	BK 66B	U2 65B	NO	85A	N1 117B	NE 66B					
782=AN	27	1131	9520	RUSS	RL HB	0	0	0	55.98N	35.85E	U2 65B	NE 66B									
783=AN	27	1331	9520	RUSS	RL HB	318	56	103	55.57N	36.13E	NO 88B	U2 65B	NE	68B							
784=AN	15	1751	11710	RUSS	VOA WOF066	0	0	0	46.43N	82.85W	AL 29D	KI 28D									
785=AN	15	0401	11875	RUSS	RL L6	103	45	105	55.46N	44.16E	BK 60B	NO 86B	KR	65A	IT 73B	KO 56B	N3 139B				
											FL 31D										
786=AN	12	0401	11875	RUSS	RL L6	587	88	109	53.99N	45.68E	U2 65B	NO 85B	KR	70B							
787=AN	13	1224	11970	RUSS	RL L6	0	0	0	66.17N	13.61E	AL 29D	BE 33D									
788=AN	15	0905	11970	RUSS	RL L6	0	0	0	55.56N	40.07E	KR 65B	NO 85B									
789=AN	15	1141	11970	RUSS	RL L6	6559	920	108	59.84N	13.23E	LR 37D	SS 32D	BE	41D							
790=AN	17	1316	15370	TI	RL HA	673	45	81	54.71N	19.89E	NE 68B	n0 190B	NE	69B	BE 43B	FL 38B	GI 34B				
791=AN	20	1416	15370	TI	RL HA	0	0	0	55.04N	35.69E	NE 69B	NO 90B									
792=AR	18	0601	15170	CZEC	RFE G8	1565	64	92	55.41N	32.66E	U2 67B	NE 68B	FL	32B							
793=AR	21	0631	15170	CZEC	RFE G8	784	87	95	54.91N	44.90E	U2 70C	KO 61B	BL	70D	KR 70D	NE 63B					
794=AR	19	2331	7410	HEBR	IBA	965	113	115	52.08N	50.84E	U2 68B	NE 73B	NO	85B							
795=AS	27	0330	9725	CZEC	RFE G3A	0	0	0	51.23N	38.28E	IT 87C	BL 85D									
796=AS	19	1849	15255	CZEC	RFE G1A	0	0	0	53.00N	36.79E	NO 95A	N2 139A									
797=AS	20	0209	7250	RUSS	RL G2	0	0	0	22.57N	67.03E	FL 36B	SS 50B									
798=AS	23	0015	9725	TB	RL B8	0	0	0	47.63N	53.07E	BL 85A	IT 85C									
799=AU	22	1731	15485	HEBR	IBA	0	0	0	54.84N	36.57E	U2 68B	N2 137B									
800=AU	9	0431	5955	LITH	RFE HB	0	0	0	56.89N	27.49E	U2 62C	NO 90C									
801=AU	21	1734	7255	RUSS	DW	129	41	99	54.56N	21.72E	NO 107B	n2 142B	IT	84B	KR 60C						
802=AU	16	1233	15235	RUSS	VOA WOF045	0	0	0	56.72N	28.42E	NO 90C	KR 59B									
803=AU	19	1531	21455	RUSS	RL L3	0	0	0	53.87N	8.88E	U2 67B	NE 53B									
804=AW	18	1607	15225	RUSS	BBC WOOF	0	0	0	5.90S	70.98E	AN 313B	GI 18B									
805=AW	18	1737	15245	RUSS	BBC WOOF	0	0	0	19.00S	80.39E	AN 297B	GI 3B									
806=AW	16	1825	15290	RUSS	RL P1	2473	1125	176	25.51S	77.71E	BE 43D	FE 318D	GI	28D	AN 296D						
807=B1	16	0320	7110	????	?????????????	0	0	0	50.76N	21.37E	NO 125B	N3 185A									
808=B1	15	2034	11830	????	?????????????	0	0	0	49.70N	15.70E	FL 42D	BE 52D									
809=B1	12	0439	11860	????	?????????????	7486	1056	123	46.72N	28.17E	BE 51D	FL 41D	LR	44D	PS 38D	SS 44D					
810=B1	16	1038	7130	CZEC	DW	0	0	0	51.07N	16.27E	BL 128B	KO 51A									
811=B1	17	1107	7130	CZEC	DW	0	0	0	0.00N	0.00E	b1 112B	it 137C									
812=B1	20	1031	7150	CZEC	DW	56	20	123	48.97N	22.30E	BK 95A	N1 158A	KO	70D	BL 120A	KR 102B					
813=B1	16	0645	7165	CZEC	RFE B9B	103	20	126	48.79N	19.86E	IT 120C	BL 130A	KR	102A							
814=B1	17	0705	7165	CZEC	RFE B9B	115	21	129	51.33N	15.50E	NE 94B	BL 130B	IT	128C							
815=B1	18	0631	7165	CZEC	RFE B9B	0	0	0	48.91N	20.72E	BK 99A	BL 125B									
816=B1	22	2221	7245	CZEC	RFE B1	0	0	0	51.27N	7.57W	FL 44B	SS 40B									
817=B1	16	0435	7285	CZEC	DW	1505	57	86	52.21S	176.64E	NE 93B	U2 97B	U2	97B							
818=B1	22	0431	7285	CZEC	DW	92	23	106	49.82N	20.38E	BK 92A	KO 73B	KR	98C	BL 121B	IT 118C					
819=B1	15	2301	11825	CZEC	RFE G2A	321	12	100	50.82N	10.70E	BK 96A	U2 96A	PS	41D	BE 51D						
820=B1	11	0622	11855	CZEC	RFE G4B	19790	1119	118	50.43N	16.73E	BE 51D	FL 41D	PS	41D							
821=B1	13	0516	11855	CZEC	RFE G4B	0	0	0	48.99N	19.02E	KR 102A	KO 75B									
822=B1	13	0409	11855	CZEC	RFE G9+G10	1696	21	55	50.06N	13.95E	FE 29D	PS 41D	KO	51A							
823=B1	12	0415	11855	CZEC	RFE G9+G10	3085	739	116	54.27N	7.08E	BE 51D	FL 41D	LR	43D	PS 38D	FE 29D	LV 28D				
											b1 110D										
824=B1	11	0747	11855	CZEC	RFE G4B	0	0	0	46.60N	28.35E	FL 41D	PS 40D									
825=B1	9	0416	11855	CZEC	RFE G9+G10	3879	824	116	51.67N	14.29E	BE 47D	FL 41D	LR	50D	LV 26D	PS 39D	SS 42D				
826=B1	9	0526	11855	CZEC	RFE G4B	5697	1013	119	49.29N	20.37E	AL 40D	FL 41D	LR	49D	PS 40D	SS 42D					
827=B1	12	0917	11865	CZEC	RFE G4B	84	23	126	48.84N	20.59E	KR 102C	IT 125B	BL	125A	KO 77B						
828=B1	12	0817	11865	CZEC	RFE G4B	5495	232	117	46.74N	27.17E	AL 42D	BE 52D	FL	42D	PS 35D	U2 96D					
829=B1	19	1901	15160	CZEC	DW	2900	70	114	48.18N	19.88E	U2 99B	SS 44B	BE	52B	ne 96B						
830=B1	18	0910	15170	CZEC	RFE G8	0	0	0	51.22N	13.96E	BE 51B	NE 97B									
831=B1	18	1401	15170	CZEC	RFE G4B	0	0	0	52.23S	174.62E	U2 96B	NE 94B									

832=BI	19	1451	15170	CZEC	RFE	G4B	0	0	0	54	08N	3	08E	BE	51B	SS	38B				
833=BI	18	2216	15255	CZEC	RFE	G1A	119	39	118	50	46N	17	15E	NO	136B	NE	94B	U2		96B	
834=BI	20	0725	15255	CZEC	RFE	G1A	0	0	0	48	43N	19	88E	U2	98A	NO	135A				
835=BI	20	1342	15255	CZEC	RFE	G1A	0	0	0	55	75N	18	78W	BE	52B	SS	32B				
836=BI	22	1235	15255	CZEC	RFE	G1A	0	0	0	0	00N	0	00E	ne	95B	be	52B	kr		100B	
837=BI	18	0646	7160	MCO	????		51	17	129	50	51N	16	96E	BL	130A	KR	98B	KO		56B	
838=BI	16	2046	7240	YUG	????		105	40	106	50	06N	21	23E	IT	116B	BL	105C	KO		70B	
839=BI	20	2046	7240	YUG	????		0	0	0	51	27N	18	62E	NO	130B	N2	175B				
840=BA	25	1554	9770	????	????????????		0	0	0	60	05N	167	15E	AN	286B	DS	325B				
841=BA	9	0855	11890	????	????????????	12978	955	42	42	77N	129	21E		AN	288D	DS	319D	FE	310D	LV	316D
842=BA	9	0949	11890	????	????????????		0	0	0	27	58N	115	30E	AN	288D	WP	295D				
843=BA	9	0945	11945	????	????????????	2180	660	55	50	75N	139	62E		AN	289D	DS	320D	FE	310D	WP	318D LV 316D
844=BA	23	1928	9770	RUSS	BBC	CYPRUS	3084	217	55	54	33N	148	90E	AN	287B	FE	308B	LV		318B	
845=BA	13	1535	11845	RUSS	BBC	CYPRUS	5785	274	66	58	61N	167	65E	FE	311D	AN	282D	FE		311D	
846=BA	14	1509	11845	RUSS	BBC	CYPRUS	2051	685	56	50	97N	142	06E	AN	286D	DS	320D	WP		318D	LV 318D
847=BA	16	0808	15430	RUSS	VOA	PHT349	0	0	0	46	60N	143	81E	PS	329D	WP	313D				
848=BD	10	0416	6065	????	????????????		0	0	0	0	00N	0	00E	b1	75B	it	80C	kr		60C	
849=BD	17	1746	15585	HEBR	IBA		947	474	145	55	94N	36	54E	AN	359B	BE	36B	GI		17B	SS 42B
850=BD	20	0416	7130	POLI	VOA	KAV355	0	0	0	53	23N	26	74E	KO	57B	BL	80C				
851=BD	13	0312	6065	RUSS	DW		295	23	77	54	06N	21	35E	BL	71A	IT	80C	KR		60C	
852=BD	14	0101	6160	RUSS	VOA	WOF066	0	0	0	58	73N	29	88E	NO	80B	N1	125B				
853=BD	17	0331	7130	RUSS	DW		0	0	0	55	97N	32	16E	BK	62A	NE	66B				
854=BD	16	0334	7285	RUSS	DW		0	0	0	54	61N	29	98E	NO	97A	NE	71B				
855=BD	28	1735	9585	RUSS	VOA	WOF090	889	188	138	45	78N	66	79E	NE	78B	N2	107B	NO		78B	
856=BD	25	1531	9715	RUSS	DW		0	0	0	54	20N	33	21E	NO	95C	N1	130C				
857=BD	13	1917	11710	RUSS	VOA	WOF066	0	0	0	55	49N	30	33E	N3	167B	N2	148B				
858=BD	15	2017	11710	RUSS	VOA	WOF066	154	44	79	53	62N	18	99E	IT	78C	KO	42C	KR		74B	
859=BD	12	1621	11740	RUSS	VOA	MUN058	0	0	0	49	75N	30	15E	LR	41D	GI	31D				
860=BD	14	1735	11780	RUSS	BBC	WOOF	0	0	0	0	00N	0	00E	n2	130B	ds	24D				
861=BD	18	1605	15225	RUSS	BBC	WOOF	732	65	94	54	38N	35	45E	NE	69B	AN	356B	KR		71B	
862=BD	20	1716	15355	RUSS	RL	G7	611	89	108	50	59N	33	69E	NE	84B	GI	28B	AL		34B	BE 43B BE 43B DS 24B
														GI	28B	WP	356B	AL		34B	
863=BD	21	0001	15355	RUSS	RL	G1	0	0	0	0	00N	0	00E	u2	70C	ne	89B				
864=BD	21	1805	15355	RUSS	RL	G7	0	0	0	61	74N	23	28W	AL	40B	LR	37B				
865=BD	21	2135	15355	RUSS	RL	G7	624	67	80	55	95N	24	05E	NE	64B	SS	41B	LR		37B	BE 38B PS 39B
866=BD	19	2026	15390	RUSS	BBC	CYPRUS	0	0	0	15	14N	61	44E	AL	35B	PS	39B				
867=BD	19	1735	15405	RUSS	DW		0	0	0	47	88S	173	55E	NE	64B	KR	72B				
868=BD	26	1807	17695	RUSS	BBC	WOOF	0	0	0	60	59N	16	26E	AL	34B	DS	24B				
869=BD	28	0911	17750	RUSS	RL	B3	0	0	0	42	93N	33	98E	FE	17B	AN	357B				
870=BD	23	1724	17770	RUSS	RL	P4	0	0	0	52	59N	25	27E	NO	111B	N2	161A				
871=BD	26	1531	17795	RUSS	DW		83	34	95	53	63N	27	77E	N1	142B	FL	29B	SS		46B	BE 43B KR 72A KI 26B
														DS	20B						
872=BD	28	1543	17795	RUSS	DW		56	48	101	53	45N	26	33E	n0	81B	N1	143B	KO		57B	KR 72B N2 161B
873=BD	26	1116	17855	RUSS	VOA	WOF070	0	0	0	48	23N	53	01E	U2	75B	NO	90C				
874=BD	24	0701	17895	RUSS	RL	P5	0	0	0	54	23N	30	06E	U2	71B	N2	150C				
875=BD	16	1515	21455	RUSS	RL	L3	181	44	87	53	20N	26	62E	IT	87B	KO	57B	KR		74C	
876=BD	21	1101	21570	RUSS	VOA	KAV095	0	0	0	26	47S	132	63E	U2	73A	IT	80C				
877=BD	24	0405	9660	UKR	RL	L3	0	0	0	0	00N	0	00E	n0	90C	kr	74B	ko		55C	
878=BG	21	2216	7205	????	????????????		0	0	0	32	71N	98	49E	IT	70B	BL	72B				
879=BG	25	0416	9525	????	????????????	286	29	93	55	36N	42	04E		BL	68A	IT	73A	KO		58A	
880=BG	9	1316	11735	????	????????????	286	28	90	56	58N	37	20E		IT	70A	BL	68B	KR		60A	NO 80C
881=BG	10	0117	6105	ARAB	????	IRN	0	0	0	55	99N	35	63E	U2	65C	NO	87B				
882=BG	13	1322	11720	ARAB	BBC	CYPRUS	324	40	157	59	81N	35	87E	N3	152B	N3	150B	N2		129B	
883=BG	16	0103	7120	ARM	VOA	WOF105	486	48	90	55	30N	36	72E	KO	55C	KR	70C	IT		72B	BL 70B
884=BG	18	0216	7155	BR	RL	G2B	0	0	0	54	07N	43	65E	NE	70B	U2	68B				
885=BG	24	1525	9680	DARI	VOA	KAV095	0	0	0	55	16N	41	62E	NO	85A	N2	128A				
886=BG	28	1518	9680	DARI	VOA	KAV095	239	81	131	53	99N	45	02E	NO	87B	n0	117B	N2		124B	U2 66B
887=BG	22	0815	15205	DARI	DW		225	26	85	55	21N	35	29E	KO	55A	BL	71A	IT		70B	
888=BG	19	0346	7155	LAT	RFE	HD	820	75	104	52	83N	54	84E	NE	68B	KR	67B	BL		70C	IT 75B KO 63A
889=BG	16	0206	7105	PASH	VOA	KAV105	448	46	90	55	20N	35	64E	BL	70B	IT	73B	KO		55C	KR 70C



943=BG	15	1840	6105	RUSS	RL	L9	0	0	0	55 28N	35 19E	KO	55B	KR	66A					
944=BG	13	1736	6105	RUSS	RL	L9	151	28	84	55 27N	29.11E	N0	94C	KO	51B	BL	65D	IT	77B	KR 65A
945=BG	12	1715	6105	RUSS	RL	L9	180	22	73	54 23N	21.50E	KO	45B	BL	68A	IT	80D	KR	68C	
946=BG	9	1916	6105	RUSS	RL	L9	0	0	0	54 24N	27.04E	KO	53B	BL	73C					
947=BG	14	2024	6140	RUSS	VOA	WOF058	251	98	127	55 93N	49 19E	N3	132C	n0	89B	U2	64B	N0	77B n3 147B	
948=BG	14	2219	6140	RUSS	VOA	WOF058	0	0	0	51 87N	51.40E	N0	85B	N3	133B					
949=BG	13	2016	6140	RUSS	VOA	WOF058	307	45	83	56 22N	29.39E	U2	67B	KO	50C	IT	68B	KR	60C	
950=BG	9	2231	6140	RUSS	VOA	WOF058	95	56	117	55 50N	39.26E	N0	87B	N3	149B	AL	9D	KO	55C	BL 70C IT 70C
951=BG	10	2046	6140	RUSS	VOA	WOF058	108	31	125	55 57N	40.48E	U2	65A	N0	85A	N1	115A			
952=BG	11	2201	6140	RUSS	VOA	WOF058	83	48	116	54 88N	41.20E	U2	67A	N3	145B	N2	130B	KO	56B	BL 70C IT 78C
953=BG	19	2116	7105	RUSS	VOA	KAV051	0	0	0	47 77S	167.72E	NE	75B	U2	67C					
954=BG	20	2216	7105	RUSS	VOA	KAV051	0	0	0	9.13N	114.49E	U2	65B	NE	69B					
955=BG	16	1701	7130	RUSS	VOA	KAV026	128	64	137	54 70N	38.81E	N2	134B	N3	150C	NE	70B	N0	87C	
956=BG	18	1801	7130	RUSS	VOA	KAV026	610	64	83	55 43N	36.20E	BL	70C	KO	55B	KR	64C			
957=BG	16	0005	7155	RUSS	RL	G2B	589	47	80	54 86N	23.79E	NE	69B	BL	65C	KR	66C			
958=BG	17	0016	7155	RUSS	RL	G2B	381	25	88	55 66N	35.93E	BL	68A	KO	65C	KR	65A	IT	66B	U2 67B NE 68B
959=BG	16	0604	7220	RUSS	RL	HC	0	0	0	0.00N	0.00E	it	59B	b1	68B	ne	68C			
960=BG	21	2301	7255	RUSS	RL	L1	0	0	0	55 43N	31.86E	U2	67B	N2	145B					
961=BG	25	0247	9520	RUSS	RL	B7	0	0	0	56 77N	33.31E	N3	160B	N0	86B					
962=BG	15	0240	11725	RUSS	RL	G4	0	0	0	38 89S	163.66E	IT	60B	BL	68B					
963=BG	12	0246	11725	RUSS	RL	G4	274	47	77	55 38N	28.86E	IT	72C	BL	70C	KO	50B	KR	65C	
964=BG	15	1145	11970	RUSS	RL	L6	0	0	0	54 79N	26.35E	IT	78C	KO	50B					
965=BG	16	1618	15370	TB	RL	HA	1603	76	91	54 87N	30.22E	NE	70B	SS	36D	GI	31D	AN	358D	
966=BI	9	0320	11880	F	EUR		0	0	0	0.00N	0.00E	be	48D	f1	3D	1r	42D			
967=BI	17	1210	7220	RUSS	RL	L2	109	27	54	55 44N	20.20E	IT	71B	BL	55C	KO	37A			
968=BI	20	1610	15405	RUSS	DW		0	0	0	54 64N	20.87E	KR	64A	KO	42C					
969=BJ	16	0436	7285	CZEC	DW		6972	1203	118	48 93N	21.14E	BE	50D	PS	42D	SS	43D			
970=BL	23	1518	9720	????	??????????????		0	0	0	22 22N	72.21E	N0	98A	N1	109B					
971=BL	10	1756	11820	????	??????????????		0	0	0	54 41N	32.53E	N0	95A	N2	145C					
972=BL	10	1546	11820	????	??????????????		0	0	0	53 64N	30.38E	N0	100A	N2	150B					
973=BL	24	1401	9735	LITH	VOA	MUN035	58	20	77	54 68N	26.29E	BK	70B	U2	68C	N0	96B	N3	179B	BL 69A KO 51A
												KR	67B							
974=BL	9	1416	11865	LITH	VOA	WOF058	0	0	0	55 48N	28.73E	U2	67B	N0	95B					
975=BL	9	1416	11960	LITH	VOA	MUN058	14965	354	134	37 89S	158.08E	u2	66B	KR	67A	IT	67B	BL	70C	
976=BL	15	0346	6065	RUSS	DW		186	34	73	53 87N	21.22E	BL	75B	KO	47B	KR	65B			
977=BL	23	0901	9520	RUSS	RL	HB	0	0	0	55 11N	45.22E	BK	65A	NE	67B					
978=BL	10	1820	11710	RUSS	VOA	WOF066	0	0	0	16 50N	69.42E	BE	42D	FL	38D					
979=BL	14	1736	11780	RUSS	BBC	WOOF	0	0	0	63 24N	3.01E	DS	26D	KI	28D					
980=BL	10	1622	11825	RUSS	RL	G8	0	0	0	54 33N	27.54E	N0	101B	N2	155B					
981=BL	13	1546	11905	RUSS	DW		0	0	0	54 61N	28.04E	U2	70B	N3	172B					
982=BL	18	1201	15205	RUSS	BBC	WOOF	0	0	0	55 64N	25.26E	BK	60A	NE	66B					
983=BL	25	0655	17760	RUSS	RL	L4	0	0	0	51 90N	30.83E	NE	81B	N0	105B					
984=BL	25	0701	17760	RUSS	RL	L4	0	0	0	0.00N	0.00E	u2	69B	ne	82B	n0	102B			
985=BL	29	1046	17760	RUSS	RL	L4	0	0	0	0.00N	0.00E	n1	131B	n0	104B	n2	165B			
986=BL	24	0637	17770	RUSS	RL	P6	0	0	0	45 84N	25.95E	N3	177B	N2	163B					
987=BN	13	1535	11845	RUSS	BBC	CYPRUS	5019	502	145	34 24S	98.44E	BE	32D	LR	41D	N3	119B			
988=BN	17	1234	15120	RUSS	VOA	KAV051	2258	42	160	65 66N	19.86E	N2	157B	AN	4B	FE	14B			
989=BN	17	1512	15405	RUSS	DW		0	0	0	0.00N	0.00E	kr	64A	ko	58B	it	92B			
990=BN	23	1851	17770	RUSS	RL	P4	0	0	0	78 65N	82.02E	AN	345B	FE	354B					
991=BQ	24	1753	17780	????	??????????????		0	0	0	49 26N	37.84E	N0	103A	N1	130B					
992=BQ	15	0237	11725	RUSS	RL	G4	0	0	0	50 16N	59.58W	BE	45D	FL	28D					
993=BQ	17	0205	15355	RUSS	RL	G1	9953	1488	178	48 52N	44.33E	LV	10D	AN	350D	FE	8D			
994=BQ	17	1502	15405	RUSS	DW		0	0	0	48 49N	29.60E	BL	105B	KO	79B					
995=BQ	20	1601	15405	RUSS	DW		0	0	0	52 37S	152.87E	N0	85C	IT	101B					
996=BQ	25	1901	17695	RUSS	BBC	WOOF	202	54	158	48 38N	42.55E	N3	149A	NE	84B	N2	135A			
997=BQ	25	2016	17760	RUSS	RL	G11+G12	3543	299	104	61 56N	.92E	PS	34B	AL	37B	BE	41B			
998=BQ	16	1501	21455	RUSS	RL	L3	2737	123	126	42 20N	45.03E	U2	90B	U2	90B	IT	102B	ne	62B	
999=BQ	28	2001	17895	UKR	RL	P6	0	0	0	0.00N	0.00E	u2	90B	ne	79B					
1000=BR	24	1707	9715	RUSS	DW		2871	475	108	54 70N	15.06E	FL	39B	LR	41B	SS	37B			
1001=BR	13	1210	11970	RUSS	RL	L6	15295	1002	42	43 90N	128.11E	AN	289D	FE	313D	LV	316D			

1002=BU	25	1150	9715	????	?????????????	170	23	105	50.72N	30.37E	KR 86A	BL 90B	IT 94A	KO 68B			
1003=BU	9	0320	11890	????	?????????????	0	0	0	49.85N	37.57E	NO 102B	N2 141B					
1004=BU	20	0750	15205	????	?????????????	1030	87	114	48.20N	41.79E	KO 80D	IT 93B	KR 83B				
1005=BU	24	0220	9540	DARI	VOA KAV095	0	0	0	48.82S	166.64E	NE 81B	U2 75C					
1006=BU	26	0231	9705	DARI	VOA KAV105	0	0	0	48.27N	35.92E	U2 85B	N2 145B					
1007=BU	26	0846	17875	DARI	DW	1739	59	119	47.25N	42.65E	IT 94A	KR 85C	U2 84B				
1008=BU	24	0931	9725	HUNG	RFE B8	755	62	114	47.80N	43.32E	BK 84A	NO 100C	U2 82C	NE 84B			
1009=BU	18	1446	15435	PASH	VOA KAV095	0	0	0	52.28N	5.58E	U2 83A	NE 82B					
1010=BU	24	0946	9705	POLI	RFE B2	0	0	0	48.78N	41.43E	NE 84B	NO 100A					
1011=BU	24	1101	9705	POLI	RFE B2	151	17	107	50.46N	33.21E	KO 68B	KR 86A	IT 94A	BL 90A	BK 82A	NO 100B	
											U2 82A	NE 84B					
1012=BU	24	1231	9705	POLI	RFE B2	175	47	99	51.79N	30.82E	U2 82C	NO 103C	IT 94C	BL 82C	KO 66B		
1013=BU	9	1445	11885	RUSS	RL L6	0	0	0	51.51N	28.55E	KR 81A	IT 94C					
1014=BU	12	0601	11885	RUSS	RL P4	0	0	0	48.78N	38.83E	U2 82B	N3 155B					
1015=BU	12	0301	11885	UKR	RL P4	0	0	0	45.79N	46.48E	U2 83B	NO 100B					
1016=CB	19	2027	15360	????	?????????????	0	0	0	46.05N	53.35E	NO 93B	N2 122B					
1017=CB	19	1816	15375	????	?????????????	1728	412	5	67.50N	48.58E	LV 10B	AN 351B	DS 3B	WP 347B			
1018=CB	17	1731	15585	HEBR	IBA	0	0	0	54.99N	20.25E	U2 68B	NE 67B					
1019=CB	26	1955	9725	HUNG	RFE B8	5220	144	101	55.12N	50.81E	BL 70D	KR 64B	IT 70D				
1020=CB	14	2050	6195	RUSS	DW	0	0	0	28.68N	94.26E	KO 73C	IT 76B					
1021=CB	25	0138	9635	RUSS	VOA WOF066	216	79	136	54.97N	45.76E	NE 68B	N3 140C	N1 108B				
1022=CB	24	2332	9680	RUSS	RL L2	0	0	0	50.59N	38.76E	NO 99B	SS 38B					
1023=CB	10	1431	11835	RUSS	VOA MUN058	0	0	0	54.54N	49.48E	NO 81B	N3 133B					
1024=CB	15	0540	11915	RUSS	RL HC	0	0	0	53.11N	30.68E	KR 74B	IT 85B					
1025=CB	21	1705	15225	RUSS	BBC WOOF	0	0	0	22.73S	132.21E	U2 70B	NO 70C					
1026=CB	18	1735	15245	RUSS	BBC WOOF	418	54	91	53.77N	35.78E	NE 72B	KR 72B	KO 60B				
1027=CB	17	1835	15355	RUSS	RL G7	0	0	0	0.00N	0.00E	wp 348B	be 344B	ne 70B				
1028=CB	22	0120	15355	RUSS	RL G1	0	0	0	70.20N	52.29E	FE 2B	AN 350B					
1029=CB	22	1651	15355	RUSS	RL G7	0	0	0	3.12N	41.38E	FE 20B	GI 50B					
1030=CB	17	1655	15405	RUSS	DW	0	0	0	62.94N	177.99W	AN 290B	WP 347B					
1031=CB	20	1802	15585	RUSS	IBA	561	76	121	53.06N	48.36E	NO 85A	BE 34B	LV 4B	WP 352B	AN 346B	FE 5B	
1032=CB	27	1835	17815	RUSS	IBA	0	0	0	21.34S	135.75E	NE 70B	KR 72B					
1033=CB	21	1301	15280	UZBE	VOA WOF086	0	0	0	53.39N	13.53E	U2 75C	NE 74B					
1034=CG	16	0746	15205	????	?????????????	0	0	0	0.00N	0.00E	ko 55B	it 62B	kr 50B				
1035=CG	24	0613	17750	????	?????????????	0	0	0	0.00N	0.00E	n3 92B	al 38B					
1036=CG	25	0637	17750	????	?????????????	0	0	0	51.94N	90.11E	WP 325B	KI 355B					
1037=CG	24	1116	9725	HUNG	RFE B8	0	0	0	66.13S	164.89E	N2 90C	N3 90B					
1038=CG	12	1501	11855	PASH	VOA KAV095	1637	309	149	53.30N	76.68E	N3 100C	AN 330D	WP 331D	DS 355D			
1039=CG	9	0831	11930	RUSS	VOA PHT349	853	80	132	62.02N	72.85E	U2 60C	N3 87B	N1 69B	N2 84B			
1040=CG	21	1607	15245	RUSS	BBC WOOF	0	0	0	13.09N	45.58E	WP 324B	FE 13B					
1041=CG	16	0714	15325	RUSS	VOA PHT021	32551	430	131	44.59N	87.95E	NE 63B	U2 60C	U2 60C				
1042=CG	20	0816	15325	RUSS	VOA PHT021	1647	72	132	48.43S	173.62E	U2 52A	U2 52A	NE 67B				
1043=CG	18	1719	15405	RUSS	DW	0	0	0	19.32N	47.23E	GI 35B	WP 327B					
1044=CG	23	0731	17740	RUSS	VOA PHT349	0	0	0	59.61N	46.95E	NO 70B	U2 55C					
1045=CG	23	0716	17865	RUSS	VOA PHP034	0	0	0	53.31N	78.75E	NE 58B	NO 65B					
1046=CG	24	0716	17865	RUSS	VOA PHP034	0	0	0	11.18S	119.62E	U2 73B	NO 75C					
1047=CG	24	0916	17865	RUSS	VOA PHP034	0	0	0	47.88S	172.74E	U2 52B	NE 66B					
1048=CG	25	0731	17865	RUSS	VOA PHP034	645	141	131	54.49N	78.20E	AN 331B	NO 65A	N1 75B				
1049=CG	23	1357	17750	TI	RL B3	0	0	0	4.32N	97.91E	SS 36B	BE 17B					
1050=CG	26	1231	17750	TI	RL B3	436	49	127	51.19S	178.50E	U2 52B	NE 75B	IT 82C	b1 62B			
1051=D1	22	0431	7285	CZEC	DW	0	0	0	52.13S	176.84E	U2 95C	NE 92B					
1052=D1	9	0408	11855	CZEC	RFE G9+G10	0	0	0	17.87N	34.78E	FE 23D	LV 26D					
1053=D3	26	0456	9510	????	?????????????	0	0	0	50.82N	25.42E	AL 39B	LR 42B					
1054=D3	15	1905	11870	????	?????????????	2804	1115	130	49.18N	20.03E	AN 7D	PS 42D	BE 50D	FL 42D			
1055=D3	9	1146	11965	????	?????????????	0	0	0	50.58N	81.61E	KR 60C	KO 58B					
1056=D3	19	0946	15295	????	?????????????	0	0	0	50.16N	16.16E	KR 98C	KO 59B					
1057=D3	23	0209	9505	BR	RL G1B	5668	571	130	50.06N	29.58E	AL 37B	PS 38B	FL 37B				
1058=D3	20	2156	15130	BR	RL G8	65	26	75	51.06N	18.45E	KO 57A	IT 111B	KR 96C				
1059=D3	14	2338	6105	CZEC	RFE G3	40	21	136	50.01N	14.75E	NO 149B	N3 203B	KO 59B	IT 136A	KR 104B		
1060=D3	16	0316	7115	CZEC	RFE G2	0	0	0	53.75N	15.11E	N1 173B	NO 130B					

1061=D3	9	1846	11865	CZEC	DW	57	37	83	50.42N	14.97E	KR 101B	BL 140D	KO 50B	n0 105C					
1062=D3	10	1848	11865	CZEC	DW	4021	476	94	58.44N	18.15W	AL 38D	BE 48D	GI 42D	KI 41D	PS 42D				
1063=D3	11	0831	11865	CZEC	RFE G4B	140	41	133	50.47N	14.24E	U2 94C	FL 43D	KR 99D	IT 138B					
1064=D3	29	0816	17835	CZEC	RFE G2A	22	17	102	50.12N	14.15E	KR 101A	IT 142A	KO 52A						
1065=D3	23	0320	9505	EST	RFE P2	1880	528	133	53.89N	9.21E	LV 30B	FE 26B	PS 40B						
1066=D3	9	1853	11970	LAT	RFE P2	0	0	0	43.71N	37.10E	AL 38D	PS 38D							
1067=D3	16	1825	15130	LAT	RFE P6	0	0	0	53.01N	13.29E	AN 11D	PS 40D							
1068=D3	23	0451	9505	LITH	RFE P2	16586	420	145	21.14S	84.66E	LR 47B	PS 40B	BE 50B						
1069=D3	24	0432	9505	LITH	RFE P2	910	199	140	38.78N	51.87E	N1 120B	NE 94B	FL 41B	SS 36B	LR 42B	PS 40B			
1070=D3	10	0008	11725	RUSS	RL G4	2223	48	144	55.05N	11.19E	N0 139B	BE 46D	PS 42D						
1071=D3	9	0716	11965	RUSS	VOA PHT021	40	22	116	49.88N	15.45E	KR 102A	BL 152B	KO 59B						
1072=D3	15	0905	11970	RUSS	RL L6	0	0	0	50.17N	14.40E	KR 101A	KO 52A							
1073=D3	11	0746	11970	RUSS	RL L6	0	0	0	50.88N	11.08E	KR 99B	U2 95B							
1074=D3	18	0923	15130	RUSS	RL P2	0	0	0	45.14N	25.91E	BE 52B	SS 46B							
1075=D3	19	0732	15290	RUSS	RL P1	0	0	0	53.59N	11.85E	N0 144A	NE 69B							
1076=D3	19	1618	15290	RUSS	RL P1	43	27	144	53.41N	11.19E	N0 148A	LV 26B	NE 70B						
1077=D3	20	1716	15355	RUSS	RL G7	0	0	0	52.12S	172.63E	KR 100B	NE 94B							
1078=D3	26	1031	17725	RUSS	RL G2B	0	0	0	0.00N	0.00E	u2 96B	ne 80B							
1079=D3	29	1231	17725	RUSS	RL G2B	0	0	0	50.12N	14.61E	U2 96B	N2 183B							
1080=D3	20	1701	15380	UKR	RL P3	0	0	0	52.13S	170.57E	U2 95C	NE 95B							
1081=DA	25	1616	9770	????	??????????????	0	0	0	42.83S	166.65E	NE 60B	U2 50B							
1082=DA	22	1440	15225	ARM	VOA WOF102	29772	537	149	10.89S	144.02E	KR 54B	BL 62B	IT 58A						
1083=DA	9	0301	11875	AZ	RL L6	1093	438	125	56.51N	74.44E	N0 63C	AN 328D	LV 18D	AN 328D					
1084=DA	23	1714	17760	AZ	RL L4	3671	471	166	57.45N	79.60E	AL 7B	LR 14B	PS 9B	BE 16B	GI 1B				
1085=DA	26	1705	17760	AZ	RL L4	1867	428	21	55.77N	79.90E	AN 329B	AL 8B	AN 329B						
1086=DA	26	1505	9505	LITH	RFE HB	0	0	0	53.20N	84.16E	WP 328B	AN 325B							
1087=DA	23	1916	9705	POLI	RFE B2	1231	256	127	43.88N	69.79E	NE 72B	WP 325B	NE 76B	N0 84C					
1088=DA	25	1434	9705	POLI	RFE B2	0	0	0	45.84N	76.90E	NE 68B	WP 325B							
1089=DA	26	1940	9705	POLI	RFE B2	773	605	140	42.91N	70.18E	WP 330B	AN 328B	NE 76C						
1090=DA	28	1615	9705	POLI	RFE B2	0	0	0	40.89S	167.20E	BL 67B	IT 58B							
1091=DA	15	2001	11725	POLI	RFE G4	1427	416	118	56.43N	78.10E	U2 52B	AN 331D	WP 331D						
1092=DA	12	1831	11725	POLI	RFE G4	0	0	0	51.74N	73.33E	U2 60B	WP 331D							
1093=DA	13	1901	11725	POLI	RFE G4	265	45	93	57.45N	39.81E	U2 58B	N0 80B	AN 329D	WP 325D	IT 60B	BL 66B			
											KR 65C								
1094=DA	11	2016	11725	POLI	RFE G4	0	0	0	55.24N	17.08E	IT 70C	KO 30C							
1095=DA	11	1820	11725	POLI	RFE G4	467	71	102	55.54N	50.10E	N0 78B	IT 71B	BL 65B	KO 60B	KR 62C				
1096=DA	14	1931	11725	POLI	RFE G4	1163	140	122	57.49N	76.48E	U2 55B	N0 60A	FE 354D	AN 333D	WP 331D				
1097=DA	12	1446	11725	POLI	RFE G4	1657	261	128	50.07N	62.24E	N0 80B	DS 2D	WP 333D	AN 340D					
1098=DA	23	1710	9770	RUSS	BBC CYPRUS	13305	467	137	39.50N	109.28E	KR 55C	IT 57C	KO 55B	BL 60B					
1099=DA	23	1916	9770	RUSS	BBC CYPRUS	1302	307	125	43.88N	73.03E	NE 71B	NE 74B	WP 325B						
1100=DA	24	1716	9770	RUSS	BBC CYPRUS	0	0	0	44.54N	96.67E	U2 55B	NE 58B							
1101=DA	26	1846	9770	RUSS	BBC CYPRUS	957	548	122	50.39N	72.76E	NE 64C	WP 328B	DS 1B						
1102=DA	27	1631	9770	RUSS	BBC CYPRUS	948	101	125	49.68S	175.63E	U2 53B	IT 69A	ko 62C	BL 85C	NE 70B				
1103=DA	29	1731	9770	RUSS	BBC CYPRUS	1267	412	124	48.08N	82.73E	U2 55C	NE 64B	WP 324B						
1104=DA	15	0020	11725	RUSS	RL G4	437	39	80	56.10N	28.26E	IT 67B	BL 62B	KR 65B						
1105=DA	12	2320	11875	RUSS	RL L6	13880	1126	26	57.14N	86.28E	FE 344D	LV 345D	AN 326D						
1106=DA	13	0140	11935	RUSS	RL P5	0	0	0	22.93N	65.12E	WP 314D	AN 328D							
1107=DA	21	1435	15235	RUSS	VOA WOF045	829	163	104	54.53N	57.73E	NE 72B	AL 9B	DS 355B	KO 53B					
1108=DA	19	0733	15290	RUSS	RL P1	0	0	0	35.05N	97.04E	KR 66C	N0 69B							
1109=DA	21	0516	15290	RUSS	RL P1	0	0	0	48.88N	77.71E	WP 327B	NE 64B							
1110=DA	21	0750	15290	RUSS	RL P1	0	0	0	53.98N	78.75E	AL 9B	KI 2B							
1111=DA	21	1149	15290	RUSS	RL P1+P2	0	0	0	53.18N	87.15E	DS 350B	WP 327B							
1112=DA	21	1417	15380	RUSS	RL P3	0	0	0	53.78N	77.10E	DS 356B	AL 10B							
1113=DA	23	1553	17760	RUSS	RL L4	0	0	0	50.76N	81.37E	DS 353B	AL 8B							
1114=DA	23	1710	17770	RUSS	RL P4	1189	270	145	58.22N	79.95E	AL 7B	BE 16B	GI 1B	LR 13B	N2 80C				
1115=DA	23	0716	17865	RUSS	VOA PHP034	0	0	0	47.02S	170.86E	NE 66C	U2 54B							
1116=DA	25	0730	17865	RUSS	VOA PHP034	635	249	140	54.20N	76.44E	AN 331B	WP 330B	N1 80B						
1117=DA	28	0116	9750	TB	RL P4	634	44	94	56.39N	41.97E	KO 62C	BL 62C	IT 69A						
1118=DA	9	1717	11730	TUN	????	0	0	0	31.76S	147.78E	U2 62B	N0 60B							
1119=DA	15	1610	11885	UKR	RL L6	0	0	0	19.50N	43.75E	GI 38D	WP 331D							















1457=GI	16	0946	15325	RUSS	VOA	PHT021	0	0	0	0.00N	0.00E	n0	80C	n1	110C	ne	102B
1458=GI	16	0702	15325	RUSS	VOA	PHT021	3433	1435	163	8.96N	102.34E	N0	75C	LR	29D	AN	286D
1459=GI	17	0618	15370	RUSS	RL	HA	0	0	0	50.58N	29.51E	WP	355B	SS	40B		
1460=GI	21	0625	15370	RUSS	RL	HA	0	0	0	27.18N	32.25E	AN	358B	WP	348B		
1461=GI	19	1946	7295	UKR	VOA	PHT021	144	40	109	56.80N	39.94E	N0	80A	N2	130C	NE	70B
1462=GI	19	1316	15235	UZBE	VOA	WOF075	585	152	104	55.09N	46.79E	NE	66B	FL	25B	BE	37B
												FE	5B				
1463=GI	20	1331	15235	UZBE	VOA	WOF075	368	60	103	56.26N	42.32E	U2	64A	N0	80B	AL	31B
												SS	30B	FE	12B	KR	62C
1464=GI	16	1344	15235	UZBE	VOA	WOF075	2395	879	139	56.71N	33.54E	AL	27D	FL	41D	KI	25D
												DS	21D				
1465=GM	14	1311	11735	????	?????????????	2909	959	52	46.89N	129.24E	AN	291D	WP	313D	LV	317D	
1466=GM	11	1312	11740	????	?????????????	0	0	0	50.48N	135.49E	AN	290D	WP	317D			
1467=GM	13	1314	11740	????	?????????????	2132	672	56	53.04N	140.89E	KI	330D	LV	315D	AN	290D	
1468=GM	12	1317	11740	????	?????????????	0	0	0	46.04N	127.88E	AN	291D	WP	312D			
1469=GM	9	1324	11790	????	?????????????	0	0	0	48.49N	123.34E	DS	328D	WP	315D			
1470=GM	10	1406	11880	????	?????????????	2940	793	51	52.40N	127.54E	AN	298D	FE	318D	WP	319D	
1471=GM	10	1028	11890	????	?????????????	0	0	0	50.99N	140.68E	AN	287D	WP	318D			
1472=GM	15	0217	11890	????	?????????????	3168	959	51	49.47N	125.37E	WP	316D	LV	321D	AN	296D	
1473=GM	9	0635	11890	????	?????????????	2450	782	54	49.79N	135.56E	AN	289D	DS	323D	WP	316D	
1474=GM	15	0436	11890	????	?????????????	0	0	0	47.75N	125.96E	WP	314D	LV	320D			
1475=GM	21	0342	15435	????	?????????????	0	0	0	43.64S	65.95E	AN	293B	FE	309B			
1476=GM	14	2137	11970	BR	RL	P2	12791	727	49	52.09N	136.91E	AN	292D	FE	312D	LV	319D
1477=GM	15	2120	11970	BR	RL	P2	2736	842	51	50.59N	130.73E	AN	294D	FE	315D	WP	317D
1478=GM	29	1013	9725	HUNG	RFE	B8	0	0	0	48.34N	153.23E	LV	310B	WP	317B		
1479=GM	18	1826	7130	RUSS	VOA	KAV026	711	207	61	56.53N	149.22E	WP	326B	DS	324B	AN	289B
1480=GM	23	2045	9435	RUSS	IBA		0	0	0	51.44N	128.18E	LV	322B	WP	318B		
1481=GM	26	1750	9660	RUSS	VOA	KAV051	0	0	0	48.85N	132.64E	LV	318B	DS	324B		
1482=GM	26	1646	9770	RUSS	BBC	CYPRUS	0	0	0	56.00N	140.23W	DS	328B	FE	310B		
1483=GM	28	2036	9815	RUSS	IBA		0	0	0	50.50N	126.60E	WP	317B	AN	296B		
1484=GM	11	2021	11790	RUSS	BBC	WOOF	0	0	0	52.04N	138.11E	AN	290D	WP	319D		
1485=GM	13	1410	11875	RUSS	RL	L5	1843	536	60	56.67N	147.25E	LV	325D	AN	291D	WP	324D
1486=GM	15	1035	11875	RUSS	RL	B4	2412	651	56	55.18N	136.46E	FE	319D	WP	322D	AN	294D
1487=GM	9	1035	11875	RUSS	RL	B4	2447	827	54	50.41N	135.64E	AN	290D	DS	323D	WP	317D
1488=GM	10	1026	11875	RUSS	RL	B4	0	0	0	51.70N	141.92E	AN	287D	WP	319D		
1489=GM	9	1417	11875	RUSS	RL	L5	2385	741	55	51.50N	136.65E	AN	290D	DS	325D	WP	318D
1490=GM	12	0806	11930	RUSS	VOA	PHT349	0	0	0	47.33S	60.16E	AN	295D	FE	311D		
1491=GM	13	2107	11935	RUSS	RL	P5	3219	1264	64	49.77N	131.14E	DS	327D	FE	315D	WP	316D
1492=GM	12	2005	11935	RUSS	RL	P5	1824	560	53	52.15N	132.85E	WP	317D	LV	319D	AN	294D
												WP	320D				
1493=GM	14	2107	11935	RUSS	RL	P5	12769	745	48	51.46N	136.44E	LV	319D	AN	291D	FE	313D
1494=GM	12	0440	11935	RUSS	RL	L5	0	0	0	47.59N	115.31E	WP	315D	LV	325D		
1495=GM	13	0540	11935	RUSS	RL	L5	16018	1031	58	55.42N	143.61E	FE	315D	LV	320D	DS	326D
1496=GM	10	0510	11935	RUSS	RL	L5	14342	451	60	57.85N	155.06E	AN	289D	DS	324D	KI	322D
1497=GM	15	0550	11935	RUSS	RL	L5	0	0	0	58.91N	156.74E	AN	289D	LV	321D		
1498=GM	13	0444	11935	RUSS	RL	L5	2682	745	52	50.79N	131.50E	WP	317D	FE	315D	LV	321D
1499=GM	11	0537	11935	RUSS	RL	L5	2818	767	51	50.80N	129.37E	AN	295D	DS	328D	FE	315D
1500=GM	22	2327	15115	RUSS	RL	G11+G12	1236	381	51	49.15N	126.47E	WP	315B	LV	324B	AN	294B
1501=GM	16	2226	15205	RUSS	RL	G6	2291	1526	163	16.71S	55.67E	WP	315D	GI	345D	LV	20D
1502=GM	22	2246	15205	RUSS	RL	G6	1282	390	50	48.97N	124.91E	WP	315B	LV	324B	AN	295B
1503=GM	18	1420	15235	RUSS	VOA	WOF045	1758	464	19	17.17S	79.84E	DS	329B	GI	4B	AN	295B
1504=GM	22	1443	15235	RUSS	VOA	WOF045	0	0	0	63.86N	176.96W	DS	329B	AN	294B		
1505=GM	21	2107	15290	RUSS	RL	P1	1195	355	52	51.65N	127.71E	LV	324B	AN	296B	WP	318B
1506=GM	19	2011	15355	RUSS	RL	G7	848	338	64	50.38N	132.96E	WP	315B	FE	320B	LV	323B
												KI	290B				
1507=GM	19	2140	15355	RUSS	RL	G7	4020	288	76	61.82N	163.51E	LV	324B	DS	326B	FE	317B
1508=GM	21	2135	15355	RUSS	RL	G7	3972	156	66	61.21N	154.68E	LV	324B	AN	295B	FE	317B
1509=GM	21	1814	15390	RUSS	BBC	CYPRUS	1202	339	50	49.70N	126.69E	FE	318B	AN	295B	WP	316B
1510=GM	17	0913	15430	RUSS	VOA	PHT349	2779	236	83	60.55N	174.86E	FE	313B	LV	322B	DS	323B
1511=GM	18	0710	15430	RUSS	VOA	PHT349	2169	65	86	62.56N	175.51W	AN	288B	FE	314B	DS	329B







1628=ID	20	0519	7305	????	????????????	0	0	0	42.96N	13.72E	NO	159A	N2	184A							
1629=IG	29	1840	9670	????	????????????	5249	341	45	47.89N	133.44E	LV	317B	FE	310B	AN	290B					
1630=IG	9	1827	11750	????	????????????	2323	724	54	50.00N	137.22E	AN	289D	FE	313D	WP	317D	LV	314D			
1631=IG	29	1540	9515	I	EUR	915	270	54	51.04N	137.85E	WP	318B	DS	321B	LV	318B	FE	312B	AN 290B		
1632=IG	15	1306	6105	RUSS	RL	L9	2997	918	49	44.96N	127.63E	FE	313D	WP	311D	LV	316D	AN	291D		
1633=IG	9	1536	6105	RUSS	RL	L9	19891	1419	35	30.65N	116.77E	AN	289D	FE	311D	LV	313D				
1634=IG	15	1839	6105	RUSS	RL	L9	0	0	0	0.00N	0.00E	an	299D	fe	312D						
1635=IG	11	1636	6105	RUSS	RL	L9	11438	712	49	51.64N	138.77E	AN	289D	FE	314D	LV	318D				
1636=IG	9	1250	6105	RUSS	RL	L9	2224	716	56	52.78N	139.45E	AN	290D	WP	320D	LV	319D				
1637=IG	19	1640	7220	RUSS	RL	L2	0	0	0	56.66N	164.85E	FE	309B	LV	317B						
1638=IG	20	1450	7220	RUSS	RL	L2	850	242	56	53.49N	141.07E	WP	321B	LV	320B	AN	290B	DS	323B	FE 314B	
1639=IG	20	1841	7220	RUSS	RL	L2	629	211	58	53.35N	152.16E	AN	282B	WP	323B	FE	310B				
1640=IG	21	1341	7220	RUSS	RL	L2	4129	257	53	54.87N	142.55E	AN	291B	LV	321B	DS	322B				
1641=IG	21	1749	7220	RUSS	RL	L2	648	166	64	58.50N	154.34E	AN	291B	FE	310B	WP	330B	LV	319B		
1642=IG	22	2050	7220	RUSS	RL	B4	0	0	0	2.58N	99.86E	FE	311B	AN	289B						
1643=IG	16	1910	7220	RUSS	RL	L2	2579	888	51	46.22N	133.50E	WP	312D	FE	312D	AN	287D				
1644=IG	21	1842	7270	RUSS	VOA	MUN035	0	0	0	21.55N	111.42E	AN	288B	FE	311B						
1645=IG	22	2108	7270	RUSS	VOA	MUN035	0	0	0	2.58N	99.86E	AN	289B	FE	311B						
1646=IG	16	1913	7270	RUSS	VOA	MUN035	0	0	0	59.33N	163.80E	FE	313D	AN	286D						
1647=IG	24	0508	9520	RUSS	RL	HB	3725	254	51	52.50N	141.96E	AN	288B	DS	323B	LV	318B	FE	313B		
1648=IG	26	1525	9520	RUSS	RL	B4	0	0	0	58.60N	170.14E	DS	323B	LV	319B						
1649=IG	28	1940	9520	RUSS	RL	L3	5566	351	44	47.54N	132.03E	LV	317B	FE	310B	AN	291B				
1650=IG	23	2350	9555	RUSS	RL	HC	0	0	0	22.69N	110.91E	AN	289B	FE	312B						
1651=IG	24	1611	9715	RUSS	DW		4065	323	69	56.33N	159.89E	DS	323B	LV	317B	FE	310B				
1652=IG	24	1810	9715	RUSS	DW		4718	308	47	49.83N	136.84E	FE	309B	AN	290B	LV	317B				
1653=IG	25	1617	9715	RUSS	DW		1952	195	89	59.15N	176.05W	DS	323B	LV	320B	FE	309B				
1654=IG	26	1647	9715	RUSS	DW		0	0	0	30.07S	80.32E	AN	290B	FE	309B						
1655=IG	27	1642	9715	RUSS	DW		2122	122	68	59.96N	164.09E	AN	289B	FE	307B	LV	319B				
1656=IG	27	1722	9715	RUSS	DW		10493	466	38	39.59N	124.29E	DS	322B	AN	289B	FE	311B				
1657=IG	28	1607	9715	RUSS	DW		4446	282	49	51.30N	137.65E	FE	312B	AN	290B	DS	325B	LV	318B		
1658=IG	29	1752	9715	RUSS	DW		900	278	54	50.96N	138.47E	WP	318B	FE	310B	AN	290B	LV	316B		
1659=IG	13	1253	11705	RUSS	VOA	KAV051	2120	648	57	53.76N	141.44E	DS	322D	LV	316D	AN	291D	WP	322D		
1660=IG	14	1140	11705	RUSS	VOA	KAV051	2577	803	51	48.86N	133.25E	FE	313D	DS	325D	WP	315D	AN	290D		
1661=IG	12	1243	11705	RUSS	VOA	KAV051	2459	824	53	51.34N	135.20E	KI	331D	AN	291D	WP	318D				
1662=IG	9	1151	11875	RUSS	RL	B4	0	0	0	51.27N	136.79E	AN	290D	WP	318D						
1663=IG	10	1310	11885	RUSS	RL	L6	0	0	0	53.69N	128.31W	FE	325D	KI	328D						
1664=IG	14	0914	11885	RUSS	RL	B5	1949	551	58	54.72N	144.75E	LV	320D	DS	322D	FE	315D	WP	323D	AN 289D	
1665=IG	13	0738	11885	RUSS	RL	B5	2451	768	54	50.65N	135.55E	LV	320D	fe	14D	WP	317D	AN	290D	DS 323D	
1666=IG	10	0717	11885	RUSS	RL	B5	22585	1588	34	27.36N	111.42E	AN	291D	DS	322D	LV	314D				
1667=IG	15	0718	11885	RUSS	RL	HD	2459	724	53	49.73N	135.03E	LV	320D	FE	313D	AN	290D	WP	316D	DS 320D	
1668=IG	14	0805	11885	RUSS	RL	B5	2583	803	51	48.92N	133.15E	AN	290D	DS	326D	FE	313D	WP	315D		
1669=IG	12	0810	11885	RUSS	RL	B5	2492	775	52	49.61N	134.56E	AN	291D	DS	323D	FE	311D	WP	316D		
1670=IG	9	1136	11885	RUSS	RL	B5	0	0	0	59.70N	157.90E	AN	290D	DS	326D						
1671=IG	10	0820	11885	RUSS	RL	B5	12280	852	47	49.53N	134.40E	AN	290D	DS	321D	LV	319D				
1672=IG	15	0810	11885	RUSS	RL	HD	1843	544	51	48.31N	132.79E	AN	291D	DS	324D	LV	318D	WP	315D	FE 313D	FE 312D
												WP	314D	LV	318D	DS	318D	AN	290D		
1673=IG	11	0535	11935	RUSS	RL	L5	2634	783	51	47.60N	132.44E	AN	289D	DS	322D	FE	312D	WP	313D	LV	321D
1674=IG	15	0556	11935	RUSS	RL	L5	0	0	0	27.46S	81.15E	FE	311D	AN	291D						
1675=IG	11	0450	11935	RUSS	RL	L5	26850	1158	38	39.94N	124.25E	AN	289D	DS	322D	FE	312D				
1676=IG	17	0642	15130	RUSS	RL	P2	0	0	0	48.76N	135.73E	AN	288B	WP	315B						
1677=IG	17	0228	15370	RUSS	RL	P6	2928	1520	16	11.49S	71.73E	AN	289D	LV	317D	GI	22D	WP	318D		
1678=IG	18	1005	15380	RUSS	RL	P3+P4	943	318	55	51.14N	137.07E	AN	290B	DS	322B	WP	318B				
1679=IG	17	1018	15380	RUSS	RL	P3+P4	0	0	0	24.04N	110.55E	AN	290B	FE	313B						
1680=IG	20	0647	15380	RUSS	RL	P3	965	297	54	50.40N	135.86E	DS	323B	KI	328B	WP	317B	LV	318B	AN	290B
1681=IG	20	0829	15380	RUSS	RL	P3+P4	3498	216	55	55.07N	145.72E	FE	315B	LV	320B	AN	289B	DS	321B	KI	329B
1682=IG	21	0606	15380	RUSS	RL	P3	1234	440	62	47.45N	133.45E	WP	313B	LV	319B	DS	323B	FE	311B		
1683=IG	21	0919	15380	RUSS	RL	P3+P4	1421	506	73	49.65N	135.34E	LV	318B	DS	323B	WP	316B				
1684=IG	22	0706	15380	RUSS	RL	P3	11529	441	39	42.04N	124.99E	FE	313B	AN	290B	DS	323B				
1685=IG	16	0710	15380	RUSS	RL	P3	0	0	0	52.97N	136.93E	WP	320D	LV	320D						
1686=IG	17	0822	15380	RUSS	RL	P3+P4	929	280	53	49.77N	137.23E	AN	288B	DS	322B	LV	319B	FE	312B	WP	316B

1687=IG	24	1925	9565	UKR	RL	HA	0	0	0	55.16N	154.93E	LV 317B	DS 322B						
1688=IG	24	2106	9565	UKR	RL	HA	0	0	0	51.09N	139.41E	WP 318B	AN 288B						
1689=IG	28	1958	9565	UKR	RL	HA	0	0	0	50.25N	139.45E	AN 287B	WP 317B						
1690=IG	9	1524	11885	UKR	RL	L6	14659	503	56	56.31N	149.61E	AN 289D	DS 325D	FE 313D	KI 326D				
1691=IG	11	0419	11885	UKR	RL	P4	0	0	0	21.81S	85.19E	FE 311D	PS 39D						
1692=IG	9	1618	11885	UKR	RL	L6	7891	195	78	62.17N	175.09E	AN 289D	DS 328D	FE 314D					
1693=IG	9	0527	11885	UKR	RL	P4	0	0	0	14.85S	89.69E	AN 290D	FE 311D						
1694=IK	26	2058	9625	RUSS	VOA	KAV051	1317	125	93	55.17N	48.15E	IT 68D	BL 70D	KR 67D	KO 58B				
1695=IR	27	1346	9510	????	??????????????		0	0	0	49.99N	51.90E	NO 88B	N2 120B						
1696=IR	20	1021	15280	????	??????????????		0	0	0	43.97N	42.65E	NO 107A	N2 138A						
1697=IR	29	1216	9515	I	EUR		0	0	0	35.46N	63.88E	N2 117B	N1 110B						
1698=IR	16	2001	7120	RUSS	BBC	WOOF	8002	253	126	46.15S	165.65E	U2 64B	U2 64B	NE 72B					
1699=JB	9	2016	6195	????	??????????????		0	0	0	44.91S	160.01E	KO 93B	KR 80D						
1700=K7	27	0226	9550	????	??????????????		181	28	135	42.72N	23.81E	IT 134B	KR 120A	BL 140B	KO 110B				
1701=K7	25	0946	9675	????	??????????????		149	33	145	46.79N	21.27E	NE 110B	NO 136A	N1 160B					
1702=K7	23	1016	9685	????	??????????????		0	0	0	0.00N	0.00E	n0 132A	n1 158B	n2 174A					
1703=K7	25	0946	9685	????	??????????????		0	0	0	48.54N	19.36E	NO 136A	N2 174B						
1704=K7	23	1916	9720	????	??????????????		0	0	0	49.35S	53.22E	NE 76B	NO 88B						
1705=K7	15	0916	11850	????	??????????????		0	0	0	56.00S	173.95W	IT 138A	BL 132C						
1706=K7	15	0916	11855	????	??????????????		164	35	133	43.92N	23.44E	KR 121B	IT 132B	BL 135B	KO 104B				
1707=K7	9	0851	11880	????	??????????????		0	0	0	50.13N	28.18E	N2 157B	NO 114B						
1708=K7	17	1905	15120	????	??????????????		1727	580	156	46.24N	24.68E	FE 22B	AL 43B	AN 4B					
1709=K7	22	1741	15120	????	??????????????		0	0	0	60.27N	16.22E	AN 8B	FE 21B						
1710=K7	20	0916	15330	????	??????????????		0	0	0	41.08N	26.03E	KR 120C	BL 138A						
1711=K7	29	0416	9555	BULG	RFE	G3B	0	0	0	44.90N	20.25E	IT 138B	KO 106A						
1712=K7	23	1001	9680	BULG	DW		0	0	0	54.42S	172.32E	BK 116A	NE 111B						
1713=K7	25	0945	9680	BULG	DW		0	0	0	45.15N	22.87E	KO 100C	IT 130D						
1714=K7	26	1016	9680	BULG	DW		337	55	125	42.69N	26.22E	KO 106B	IT 127C	KR 118C					
1715=K7	27	0950	9680	BULG	DW		210	29	136	41.70N	25.18E	KR 120A	IT 135B	BL 137B	KO 112B				
1716=K7	28	0935	9680	BULG	DW		0	0	0	56.13S	91.51E	KR 135C	IT 135C						
1717=K7	27	1832	9715	BULG	DW		132	27	141	44.41N	22.54E	BL 140A	KO 105B	IT 131B					
1718=K7	11	1845	11750	BULG	DW		158	40	137	43.84N	22.31E	IT 137B	BL 140B	KO 108B					
1719=K7	14	1916	11750	BULG	DW		417	44	141	42.35N	25.38E	IT 133B	BL 135B	KR 118B					
1720=K7	11	0945	11830	BULG	DW		0	0	0	46.65N	20.03E	IT 133C	KR 113C						
1721=K7	13	0946	11830	BULG	DW		0	0	0	43.19N	25.09E	IT 130A	KR 116B						
1722=K7	10	0946	11850	BULG	DW		148	24	135	43.74N	22.77E	KR 119A	IT 134A	KO 107B	n0 130A				
1723=K7	10	1005	11850	BULG	DW		385	49	151	43.63N	24.17E	NO 135A	N3 180B	BE 56D	LR 52D	PS 47D			
1724=K7	9	0947	11850	BULG	DW		129	22	139	43.08N	23.32E	KR 120A	IT 137B	BL 140A	KO 109B	BE 55D	FL 45D		
												PS 42D							
1725=K7	16	1801	15115	BULG	RFE	G3	3689	252	80	54.49S	167.28E	U2 113C	NE 109B	bl 130B					
1726=K7	20	1940	15115	BULG	RFE	G3	0	0	0	45.72N	24.80E	NE 109B	N2 165B						
1727=K7	19	1620	15160	BULG	DW		0	0	0	0.00N	0.00E	ko 105B	kr 135A	kr 120A					
1728=K7	21	1005	15330	BULG	DW		0	0	0	0.00N	0.00E	kr 120A	ne 71B	bl 139B					
1729=K7	22	0932	15330	BULG	DW		0	0	0	39.26N	36.06E	N2 150C	NE 109B						
1730=K7	18	1920	21745	BULG	RFE	G9+G10	760	68	135	33.79N	35.89E	it 135A	BL 130B	KO 115A	KR 120C				
1731=K7	23	0424	9550	F	EUR		110	22	136	44.92N	20.37E	AN 7B	BE 58B	PS 43B	AL 46B	BL 140C	IT 138A		
												KR 120A	KO 105B						
1732=K7	13	1545	9715	RUSS	DW		0	0	0	43.90N	23.82E	BL 137B	KO 105B						
1733=K7	9	1216	11770	RUSS	RL	G8	73	24	122	49.64N	16.38E	IT 135D	BL 145B	KR 102A					
1734=K7	9	1036	11875	RUSS	RL	B4	3981	429	163	18.97N	56.46E	FL 43D	LR 50D	PS 41D	N3 142B	N1 127B			
1735=K7	15	0927	11875	RUSS	RL	B4	0	0	0	48.78N	61.66W	BE 47D	PS 42D						
1736=K7	11	0846	11875	RUSS	RL	B4	0	0	0	54.56N	3.94W	BE 52D	FL 40D						
1737=K7	10	1120	11875	RUSS	RL	B4	2588	223	177	41.06N	27.43E	AL 46D	PS 44D	N3 175B					
1738=K7	10	1020	11875	RUSS	RL	B4	28981	1665	144	11.12N	56.33E	AL 42D	BE 56D	LR 51D	PS 47D				
1739=K7	17	0614	15380	RUSS	RL	P3	0	0	0	41.52N	24.02E	FL 47B	LV 25B						
1740=K7	21	0558	15445	RUSS	RL	G1	1838	121	82	52.79N	35.13W	FL 39B	LR 51B	BE 57B					
1741=K7	25	0612	17895	RUSS	RL	P5	245	27	142	41.07N	26.17E	KR 120A	IT 130B	BL 138A	ne 82B				
1742=K7	25	0918	17895	RUSS	RL	P5	0	0	0	46.84N	21.74E	N2 170B	NE 110B						
1743=K7	26	0853	17895	RUSS	RL	P5	0	0	0	54.64N	22.22E	AN 5B	NE 70B						
1744=KB	28	1735	9590	????	??????????????		0	0	0	46.49N	135.34E	FE 311B	DS 321B						

1745=KB	29	1622	9670	????	???????????????	972	302	55	53.74N	136.26E	AN 294B	DS 322B	WP 321B			
1746=KB	15	1648	11850	????	???????????????	2227	701	57	53.52N	139.55E	AN 291D	WP 321D	LV 319D			
1747=KB	15	0439	11890	????	???????????????	0	0	0	48.62N	138.76E	FE 311D	WP 315D				
1748=KB	14	0845	11955	????	???????????????	8422	566	54	54.27N	145.55E	AN 289D	DS 323D	FE 310D	LV 319D		
1749=KB	23	1407	9520	RUSS	RL B4	3825	519	38	44.10N	129.43E	DS 321B	FE 313B	GI 328B	1r 155B	AL 335B	
1750=KB	23	1517	9520	RUSS	RL B4	9327	342	45	48.59N	133.48E	DS 324B	AN 290B	FE 312B			
1751=KB	24	1537	9520	RUSS	RL B4	11779	541	35	33.88N	118.86E	DS 321B	AN 289B	FE 312B			
1752=KB	25	1506	9520	RUSS	RL B4	3445	255	52	53.90N	144.16E	AN 288B	GI 328B	LV 319B			
1753=KB	25	1704	9520	RUSS	RL B4	2058	127	67	59.66N	162.62E	AN 288B	LV 322B	FE 311B	DS 324B		
1754=KB	26	1510	9520	RUSS	RL B4	3391	380	35	41.15N	124.84E	FE 312B	AN 289B	DS 324B	AL 337B	GI 329B	PS 339B
1755=KB	26	1612	9520	RUSS	RL B4	2796	206	46	49.86N	135.06E	FE 312B	DS 323B	GI 329B	LV 319B	AN 290B	DS 323B
											LV 319B	GI 329B	AN 290B	FE 312B		
1756=KB	27	1400	9520	RUSS	RL HB	17767	613	28	6.40N	94.50E	AN 295B	DS 325B	DS 324B	AN 296B	fe 312B	
1757=KB	27	1813	9520	RUSS	RL B4	12900	703	31	15.86N	106.00E	FE 312B	DS 319B	AN 290B			
1758=KB	28	1415	9520	RUSS	RL B4	795	226	56	53.01N	142.76E	WP 320B	FE 310B	KI 327B	GI 320B	AN 291B	LV 318B
											DS 321B					
1759=KB	28	1740	9520	RUSS	RL B4	6320	453	41	42.20N	125.14E	DS 321B	AN 290B	LV 317B			
1760=KB	29	1517	9520	RUSS	RL B4	2994	188	59	56.88N	150.91E	LV 321B	FE 313B	DS 322B	AN 289B		
1761=KB	25	2105	9605	RUSS	DW	1138	418	65	48.84N	136.86E	LV 316B	FE 311B	DS 325B	WP 315B		
1762=KB	24	0014	9625	RUSS	RL G2A	0	0	0	48.81N	132.97E	AN 290B	WP 315B				
1763=KB	27	0240	9750	RUSS	RL P4	0	0	0	39.48N	124.81E	FE 312B	AN 288B				
1764=KB	11	2055	11750	RUSS	DW	2616	922	52	47.12N	133.27E	AN 288D	DS 323D	WP 313D			
1765=KB	11	2005	11790	RUSS	BBC WOOF	2729	827	51	48.04N	130.99E	AN 291D	FE 313D	WP 314D	LV 319D		
1766=KB	14	1910	11790	RUSS	BBC WOOF	0	0	0	51.39N	138.46E	AN 289D	LV 318D				
1767=KB	13	1821	11845	RUSS	BBC CYPRUS	1798	525	58	53.87N	147.30E	DS 321D	FE 311D	WP 323D	KI 328D	LV 316D	AN 287D
1768=KB	11	1625	11845	RUSS	BBC CYPRUS	0	0	0	58.73N	178.10E	FE 309D	LV 319D				
1769=KB	9	1609	11845	RUSS	BBC CYPRUS	2122	620	56	52.58N	140.91E	AN 289D	DS 324D	FE 313D	WP 320D	LV 318D	
1770=KB	12	1522	11845	RUSS	BBC CYPRUS	11912	731	48	50.84N	135.99E	AN 291D	DS 323D	LV 319D	FE 312D		
1771=KB	11	0610	11885	RUSS	RL P4	1258	605	21	20.05S	85.49E	AN 288D	DS 322D	FE 312D	WP 313D	KI 321D	LV 320D
											LR 340D	PS 41D				
1772=KB	12	0611	11885	RUSS	RL P4	2341	766	53	50.39N	137.01E	AN 289D	FE 313D	WP 317D	lv 28D		
1773=KB	13	1426	11895	RUSS	RL H15	2608	871	52	48.00N	132.95E	DS 324D	AN 289D	WP 314D	KI 329D		
1774=KB	13	1605	11915	RUSS	DW	2247	676	54	50.50N	138.49E	FE 312D	WP 317D	LV 319D	DS 322D	AN 288D	
1775=KB	9	1737	11915	RUSS	DW	1942	601	59	54.26N	144.82E	AN 289D	DS 325D	WP 323D	LV 315D		
1776=KB	14	1635	11915	RUSS	DW	2393	735	52	48.78N	135.91E	KI 328D	LV 317D	WP 315D	AN 288D	FE 312D	
1777=KB	11	1703	11915	RUSS	DW	1989	574	57	53.82N	143.65E	AN 289D	DS 323D	FE 313D	WP 322D	LV 318D	
1778=KB	15	0914	11930	RUSS	VOA PHT349	6188	643	42	45.59N	131.48E	LV 315D	AN 289D	FE 312D	SS 343D	LV 313D	FE 312D
											AN 289D					
1779=KB	14	0739	11930	RUSS	VOA PHT349	0	0	0	40.95N	123.63E	AN 290D	LV 316D				
1780=KB	12	0905	11930	RUSS	VOA PHT349	5649	592	52	55.08N	145.47E	AL 331D	LV 317D	FL 334D	AN 290D		
1781=KB	9	0836	11930	RUSS	VOA PHT349	12213	1038	38	41.91N	126.27E	AN 289D	DS 321D	FE 313D	FL 339D		
1782=KB	10	0721	11930	RUSS	VOA PHT349	2231	700	57	53.65N	139.52E	AN 291D	WP 321D	LV 320D			
1783=KB	12	0804	11930	RUSS	VOA PHT349	2427	839	51	48.46N	133.28E	AL 337D	AN 289D	WP 315D	LV 317D		
1784=KB	14	0913	11930	RUSS	VOA PHT349	7587	441	60	57.83N	153.41E	AN 290D	FE 310D	LV 320D			
1785=KB	10	1906	11935	RUSS	RL B4	2185	656	55	52.45N	139.78E	AN 289D	FE 313D	WP 319D	LV 322D		
1786=KB	10	0610	11970	RUSS	RL L6	8371	534	55	55.39N	146.94E	AN 289D	DS 323D	FE 313D	LV 320D		
1787=KB	12	0621	11970	RUSS	RL L6	2551	749	51	47.52N	133.49E	AN 289D	DS 322D	FE 313D	WP 313D	KI 320D	LV 320D
1788=KB	13	0848	11970	RUSS	RL L6	2623	856	53	47.14N	133.16E	AN 288D	DS 324D	WP 313D	LV 316D		
1789=KB	13	1205	11970	RUSS	RL L6	2563	845	47	45.99N	131.17E	AN 289D	FE 311D	PS 337D	GI 328D	WP 312D	
1790=KB	15	0640	11970	RUSS	RL L6	2551	755	52	48.63N	133.63E	WP 314D	FE 312D	LV 322D	AN 289D	DS 323D	
1791=KB	10	1310	11970	RUSS	RL P2	5138	1397	36	45.66N	97.05E	AN 315D	DS 335D	WP 316D			
1792=KB	15	0905	11970	RUSS	RL L6	0	0	0	34.97N	119.55E	AN 289D	LV 314D				
1793=KB	14	0835	11970	RUSS	RL L6	7295	478	58	56.41N	150.75E	FE 310D	AN 289D	LV 320D	DS 323D		
1794=KB	10	1117	11970	RUSS	RL L6	2798	945	52	47.85N	130.55E	AN 291D	DS 323D	WP 314D			
1795=KB	11	0546	11970	RUSS	RL L6	913	372	140	28.66S	67.27E	AN 287D	DS 43D	FE 312D	WP 312D	LV 322D	
1796=KB	14	0605	11970	RUSS	RL L6	2654	1491	18	6.74S	80.36E	WP 315D	LV 318D	PS 38D	AN 289D	FE 311D	
1797=KB	15	1142	11970	RUSS	RL L6	1706	183	3	25.55S	82.22E	LV 316D	AL 34D	AN 290D	KI 331D	GI 328D	WP 319D
1798=KB	15	0549	11970	RUSS	RL L6	2470	760	53	49.46N	134.86E	FE 312D	AN 289D	LV 322D	WP 315D		
1799=KB	13	0537	11970	RUSS	RL L6	2592	1028	87	52.87N	150.24E	DS 322D	WP 322D	LV 315D			
1800=KB	9	1042	11970	RUSS	RL L6	2259	664	54	51.40N	138.38E	AN 289D	DS 323D	FE 313D	WP 318D	LV 320D	

1801=KB	26	0355	17760	RUSS	RL	G16	0	0	0	28.63E	82.30E	AN	289B	GI	357B						
1802=KB	25	0054	9725	TB	RL	B8	0	0	0	22.69N	110.91E	AN	289B	FE	312B						
1803=KB	24	0040	9750	TB	RL	P4	0	0	0	.82N	97.86E	AN	290B	FE	312B						
1804=KB	27	0110	9750	TB	RL	P4	4062	248	52	53.90N	143.07E	FE	311B	AN	290B			LV	319B		
1805=KB	28	1917	9575	UKR	VOA	PHT021	4140	306	47	48.34N	136.78E	FE	307B	LV	316B			AN	289B	DS	321B
1806=KB	12	0317	11885	UKR	RL	P4	0	0	0	24.04N	110.55E	AN	290D	FE	313D						
1807=KB	9	0320	11885	UKR	RL	P4	0	0	0	22.69N	110.91E	AN	289D	FE	312D						
1808=KB	13	0322	11885	UKR	RL	P4	1780	474	61	56.99N	149.40E	FE	312D	WP	327D			DS	321D	LV	320D
1809=KB	10	0350	11885	UKR	RL	P4	5701	358	66	59.41N	160.75E	AN	288D	DS	322D			LV	322D		
1810=KB	10	0519	11885	UKR	RL	P4	22792	1384	46	44.70N	129.02E	DS	323D	FE	313D			LV	316D		
1811=KB	9	0520	11885	UKR	RL	P4	7302	431	61	58.05N	153.16E	AN	290D	DS	325D			FE	312D	wp	136D
1812=KB	14	0515	11885	UKR	RL	P4	0	0	0	46.69N	130.08E	AN	290D	FE	314D						
1813=KB	13	0506	11885	UKR	RL	P4	1854	549	59	55.33N	146.35E	WP	325D	AN	290D			GI	328D	DS	321D
1814=KB	10	1623	11700	YIDD	IBA		1955	554	59	55.50N	144.97E	AN	290D	FE	315D			WP	324D	LV	320D
1815=KD	25	0816	9585	????	????????????		0	0	0	0.00N	0.00E	it	71B	ko	65C			bl	80B		
1816=KD	25	0816	9590	????	????????????		0	0	0	56.60N	35.54E	NE	64B	NO	85B						
1817=KD	13	0212	5955	BR	RL	HB	0	0	0	0.00N	0.00E	it	70B	bl	70A			ko	48A		
1818=KD	15	0320	11970	BULG	RFE	G13+G14	2215	995	143	61.21N	35.99E	AL	30D	AN	356D			BE	34D	LR	25D
1819=KD	17	1524	15435	DARI	VOA	KAV095	6481	739	149	37.89N	54.47E	AL	31B	FL	35B			KI	22B		
1820=KD	23	0835	17780	DARI	DW		186	28	85	56.27N	35.63E	IT	70A	KO	52A			BL	70D	KR	64B
1821=KD	24	0806	17780	DARI	DW		61	24	139	56.98N	37.20E	NO	82A	N3	151A			N1	118A	n2	128A
1822=KD	17	1650	15340	GEOR	RL	L1	0	0	0	52.18N	44.00E	AL	29B	LR	33B						
1823=KD	10	2231	6060	POLI	VOA	WOF075	158	36	103	55.80N	39.13E	U2	63B	U2	63B			NO	85A	BL	70B
1824=KD	18	2000	7190	POLI	RFE	B7	136	22	73	55.77N	27.17E	BL	68B	IT	70B			KR	62A	KO	47A
1825=KD	18	2131	7190	POLI	RFE	B7	305	55	96	55.59N	31.84E	NO	90C	U2	66B			AL	43B	be	90B
1826=KD	19	0346	7190	POLI	RFE	G2B	0	0	0	55.26N	21.18E	NE	66B	U2	67C					SS	41B
1827=KD	19	1004	7190	POLI	RFE	B7	222	46	97	55.27N	34.92E	NO	90B	KR	66B			BL	70C	NE	68B
1828=KD	19	1116	7190	POLI	RFE	B7	177	39	91	55.87N	35.79E	NE	66B	NO	88B			BL	67B	IT	70C
1829=KD	17	0416	7190	POLI	RFE	G2B	287	39	93	55.65N	39.28E	KR	65B	IT	68B			BL	65B	KO	55B
1830=KD	16	1046	7190	POLI	RFE	B7	0	0	0	54.89N	38.70E	NE	69B	N3	151A					KO	62C
1831=KD	19	2120	7190	POLI	RFE	B7	0	0	0	0.00N	0.00E	ne	66B	lr	54B			ss	48B		
1832=KD	20	0422	7190	POLI	RFE	G2B	90	35	96	56.48N	33.05E	NO	87B	N2	143C			U2	66B	AN	346B
1833=KD	20	0535	7190	POLI	RFE	G2B	0	0	0	56.95N	27.19E	IT	72B	BL	65C			n0	144C	NO	84B
1834=KD	20	0646	7190	POLI	RFE	B7	0	0	0	56.16N	21.18E	NE	61B	NO	90C						
1835=KD	18	0646	7190	POLI	RFE	B7	0	0	0	40.13N	42.91E	NO	112B	N2	140C						
1836=KD	20	1231	7190	POLI	RFE	B7	96	20	76	55.67N	26.99E	NO	90C	U2	67B			NE	72B	KR	62A
1837=KD	21	0446	7190	POLI	RFE	G2B	1281	104	125	49.42N	56.73E	BL	67B					IT	70B	KO	47A
1838=KD	21	0531	7190	POLI	RFE	G2B	0	0	0	46.82S	167.78E	NO	85A	SS	39B			NE	74B		
1839=KD	21	0701	7190	POLI	RFE	B7	97	16	77	55.36N	26.00E	U2	62C	NE	71B						
1840=KD	21	2034	7190	POLI	RFE	B7	112	19	77	56.02N	28.23E	BK	65A	U2	66A			NE	70B	SS	39B
1841=KD	22	0524	7190	POLI	RFE	G2B	138	22	73	55.83N	27.40E	KR	62A	IT	70B			KO	47A	BL	67B
1842=KD	22	0731	7190	POLI	RFE	B7	83	22	93	55.45N	37.32E	BE	39B	SS	42B			NE	67B	U2	64A
1843=KD	17	1116	7190	POLI	RFE	B7	0	0	0	55.34N	36.16E	KO	47A	KR	62A			BL	67B	IT	70B
1844=KD	17	0931	7190	POLI	RFE	B7	113	30	88	55.53N	37.99E	IT	70B	KR	62A			KO	47A	BL	67B
1845=KD	17	0831	7190	POLI	RFE	B7	159	32	88	55.82N	31.80E	BK	65A	N2	135B			U2	66A	NO	85B
1846=KD	25	0937	7190	POLI	RFE	B7	0	0	0	56.13N	37.74E	IT	63B	KR	70B			KO	58B		
1847=KD	18	0805	7190	POLI	RFE	B7	241	29	87	55.09N	36.92E	NE	68B	N2	137C						
1848=KD	18	1347	7190	POLI	RFE	B7	0	0	0	55.87N	29.12E	NO	93B	NE	66B						
1849=KD	17	1530	7190	POLI	RFE	B7	244	24	88	55.31N	37.20E	BL	67A	IT	77B			KO	58A	KR	66A
1850=KD	18	0450	7190	POLI	RFE	G2B	0	0	0	53.32N	51.69E	NE	69B	NO	82C						
1851=KD	18	1816	7190	POLI	RFE	B7	0	0	0	54.99N	42.23E	NE	68B	NO	85B						
1852=KD	16	0646	7190	POLI	RFE	B7	71	21	80	54.90N	29.90E	IT	77B	KO	56A			KR	66B	BL	67A
1853=KD	17	2146	7190	POLI	RFE	B7	572	36	73	53.29N	10.04E	NE	69B	LR	54B			SS	38B	BE	40B



1912=KU	16	1125	15290	RUSS	RL	P1+P2	0	0	0	54.48N	160.64E	DS	320D	LV	315D				
1913=KU	21	0523	15290	RUSS	RL	P1	0	0	0	5.38N	104.70E	AN	286B	FE	308B				
1914=KU	21	0755	15290	RUSS	RL	P1	5356	374	41	42.15N	128.21E	FE	310B	AN	288B	DS	321B	KI	328B
1915=KU	17	1925	15290	RUSS	RL	P1	885	310	51	44.71N	126.73E	GI	1B	WP	312B	KI	328B	FE	311B
														LV	315B	WP	311B		
1916=KU	17	0658	15290	RUSS	RL	P1	6601	613	34	12.77S	88.50E	AN	294B	DS	316B	lv	321B	FE	310B
1917=KU	16	0747	15290	RUSS	RL	P1	2348	840	54	48.63N	137.18E	DS	321D	WP	315D	AN	287D		
1918=KU	17	0810	15290	RUSS	RL	P1	1052	329	51	44.48N	133.01E	AN	287B	DS	318B	FE	308B	WP	310B
1919=KU	16	1829	15290	RUSS	RL	P1	1466	453	37	27.89S	74.02E	AN	296D	DS	318D	GI	28D		LV 316B
1920=KV	11	1431	11960	EST	VOA	MUN058	0	0	0	58.93N	27.56E	U2	55C	NO	80B				
1921=KV	9	1047	11885	RUSS	RL	B5	0	0	0	0.00N	0.00E	n0	85B	n2	122B	n3	159B		
1922=KV	9	1139	11885	RUSS	RL	B5	0	0	0	54.57N	35.10E	NO	92B	N2	140B				
1923=KV	16	1237	15235	RUSS	VOA	WOF045	134	23	80	57.81N	30.66E	NO	84B	KR	58A	IT	61A	KO	44B
1924=KV	16	1029	21455	RUSS	RL	L3	0	0	0	55.93N	15.23E	IT	56A	KO	22B				
1925=L4	29	0930	9680	????	??????????????		185	36	133	43.29N	24.77E	KO	107B	IT	131B	BL	136B	KR	115B
1926=L4	15	1846	6170	BULG	DW		0	0	0	45.49N	21.49E	KO	100B	KR	115C				
1927=L4	9	1909	6170	BULG	DW		0	0	0	46.52N	24.12E	N3	180B	NO	130B				
1928=L4	12	1905	6170	BULG	DW		136	24	134	49.28N	17.24E	ko	102B	BL	128C	IT	132A	KR	105B
1929=L4	24	0338	9555	BULG	RFE	G3B	3235	669	134	33.78N	41.96E	BE	53B	AL	40B	SS	52B		
1930=L4	28	0331	9555	BULG	RFE	G3B	248	44	135	46.18N	21.66E	U2	106B	IT	122C	BL	138B		
1931=L4	23	1007	9680	BULG	DW		170	25	133	43.38N	25.16E	ne	106B	KO	104B	IT	129A	KR	116A
1932=L4	25	0931	9680	BULG	DW		108	20	127	47.81N	18.67E	BK	111A	ko	106A	IT	132A	KR	115B
1933=L4	23	1916	9715	BULG	DW		140	23	126	43.13N	25.73E	IT	130B	KR	116A	BL	130B	KO	105A
1934=L4	24	1904	9715	BULG	DW		137	28	135	44.76N	22.21E	bl	130A	IT	133A	KR	115B	KO	104B
1935=L4	26	1846	9715	BULG	DW		222	44	131	43.04N	26.00E	BL	130C	KO	106B	IT	130B	KR	113C
1936=L4	28	1844	9715	BULG	DW		0	0	0	43.28N	26.23E	KO	104B	BL	132A				
1937=L4	29	1850	9715	BULG	DW		178	36	131	43.91N	24.88E	KO	104B	KR	113B	IT	130B	BL	133B
1938=L4	15	1900	11750	BULG	DW		105	25	138	45.57N	21.47E	IT	130B	BL	140A	KO	100B	KR	115B
1939=L4	14	1916	11750	BULG	DW		0	0	0	44.29N	22.66E	IT	133B	KO	105A				
1940=L4	24	1950	17725	BULG	RFE	G2B	0	0	0	42.06N	25.42E	NO	135B	N3	178B				
1941=L4	26	2016	17725	BULG	RFE	G2B	1112	113	128	42.16N	26.85E	U2	108B	AN	3B	SS	49B	FL	46B
1942=L8	18	2220	15260	????	??????????????		1169	485	134	49.00N	19.10E	AN	8B	AL	42B	FL	43B	PS	42B
1943=L8	15	0601	6115	CZEC	RFE	B2	0	0	0	46.66N	21.97E	U2	102B	KO	92B				
1944=L8	20	0701	15170	CZEC	RFE	G8	36	26	126	53.72N	12.15E	u2	104B	NO	142A	NE	68B	NE	68B
1945=L8	20	2121	15170	CZEC	RFE	G5	41	17	132	49.05N	16.08E	NE	102B	U2	103A	N2	180A	AL	45B
														BL	138B	IT	141A	KR	107B
														u2	102C	ne	66B		
1946=L8	19	0750	15170	CZEC	RFE	G8	0	0	0	0.00N	0.00E	SS	40B	FL	41B				
1947=L8	22	2324	15170	CZEC	RFE	G5	0	0	0	52.42N	7.44E	N2	180A	NE	98B				
1948=L8	20	2146	15255	CZEC	RFE	G1A	0	0	0	50.73N	16.14E	U2	106B	NO	140A				
1949=L8	24	0901	17835	CZEC	RFE	G2A	0	0	0	46.47N	19.53E	NE	106B	NO	142A	N3	194A		
1950=L8	25	0746	17835	CZEC	RFE	G13+G14	74	28	149	49.64N	16.13E	NE	106B	NO	142A				
1951=L8	25	1004	17835	CZEC	RFE	G2A	0	0	0	52.95S	149.81E	NE	106B	U2	105B				
1952=L8	26	1929	17835	CZEC	RFE	G2A	1169	536	135	41.16N	25.11E	BE	51B	SS	57B	DS	31B	AN	7B
1953=L8	27	1106	17835	CZEC	RFE	G2A	0	0	0	37.90S	101.60E	LR	44B	BE	50B				
1954=L8	28	0631	17835	CZEC	RFE	G13+G14	126	30	122	48.78N	16.72E	BK	106B	KR	114B	NO	141B	U2	105C
1955=L8	28	0731	17835	CZEC	RFE	G13+G14	96	26	118	49.66N	13.52E	NO	150B	U2	102A	NE	105B		NE 105B
1956=L8	29	0816	17835	CZEC	RFE	G2A	124	22	142	48.34N	17.05E	KR	110B	NO	143B	IT	138A	BL	143B
1957=L8	29	1431	17835	CZEC	RFE	G2A	0	0	0	53.49S	163.72E	U2	105B	NE	104B				
1958=L8	19	1131	21720	CZEC	RFE	G16	0	0	0	0.00N	0.00E	n0	130B	u2	102B	ne	101B		
1959=L8	20	1201	21720	CZEC	RFE	G16	0	0	0	47.94N	18.31E	U2	102A	NO	140C				
1960=L8	21	1231	21720	CZEC	RFE	G16	2258	52	111	50.27N	8.95E	U2	104B	SS	42B	BE	53B		
1961=L8	18	1232	21720	CZEC	RFE	G16	89	20	135	47.87N	17.93E	NO	140B	ne	96B	IT	136A	BL	145B
1962=L8	20	2246	7240	YUG	????		146	24	140	48.08N	17.69E	KR	110B	IT	136A	BL	144B	KR	111A
1963=LD	10	2020	11710	RUSS	VOA	WOF066	1714	105	116	50.10N	63.46E	IT	74A	BL	75B	KO	65B		
1964=LF	19	1735	15410	????	??????????????		0	0	0	41.98N	65.53E	FE	354B	WP	328B				
1965=LF	18	1734	15245	RUSS	BBC	WOOF	964	149	147	44.20N	72.24E	N2	102A	NE	72B	NO	82C		
1966=LF	12	1324	11705	UZBE	VOA	KAV051	0	0	0	53.20N	84.16E	AN	325D	WP	328D				
1967=LG	9	2052	11970	EST	RFE	P2	0	0	0	22.59S	85.19E	AL	23D	LR	48D				
1968=LG	19	0946	15115	POLI	RFE	G3	107	48	126	50.98N	24.16E	NO	121B	N2	162B	NE	87B		
1969=LG	16	1106	15145	POLI	RFE	G2	1956	930	167	68.24N	48.06E	PS	2D	FE	20D	AN	343D	BE	30D



2025=LK	22	1101	15280	RUSS	VOA	WOF086	432	27	86	53.60N	22.51E	U2	75B	n0	75B	BE	45B	SS	38B	NE	72B	KR	72A
2026=LK	20	0916	15340	RUSS	RL	L1	0	0	0	52.23N	54.56E	NE	70B	N0	82B								
2027=LK	21	1010	15340	RUSS	RL	L1	0	0	0	40.55N	80.91E	AL	10B	WP	319B								
2028=LK	16	0945	15340	RUSS	RL	L1	0	0	0	47.57N	65.36E	KR	72A	IT	77A								
2029=LK	18	1101	15340	RUSS	RL	L1	2410	141	116	49.79S	173.19E	U2	66B	kr	73A	NE	76B	NE	77B				
2030=LK	18	0801	15340	RUSS	RL	L1	0	0	0	46.08N	72.84E	U2	67A	NE	70B								
2031=LK	21	0916	15380	RUSS	RL	P3+P4	0	0	0	37.45N	77.77E	WP	318B	AL	13B								
2032=LK	21	1031	15380	RUSS	RL	P3+P4	0	0	0	49.10S	171.66E	U2	65C	NE	75B								
2033=LK	22	1301	15380	RUSS	RL	P3+P4	1531	182	126	45.36N	72.88E	U2	68A	NE	70B	KR	71B	DS	358B				
2034=LK	18	1001	15380	RUSS	RL	P3+P4	0	0	0	50.03S	173.83E	U2	66B	NE	77B								
2035=LK	17	1310	15380	RUSS	RL	P3+P4	0	0	0	76.74N	66.20E	DS	1B	LV	358B								
2036=LK	20	0853	15445	RUSS	RL	G1	0	0	0	64.91N	51.36E	DS	8B	WP	348B								
2037=LK	16	0804	15445	RUSS	RL	G1	4859	769	144	15.19N	77.45E	BE	44D	GI	2D	PS	22D	NE	94B				
2038=LK	21	0901	15585	RUSS	IBA		1002	176	128	43.05N	76.01E	U2	66B	N0	78B	NE	69B	KR	73A	WP	324B	AL	12B
2039=LK	27	0701	17725	RUSS	RL	G2B	1440	591	159	32.99N	65.81E	N1	115C	AL	9B	WP	323B						
2040=LK	29	0601	17725	RUSS	RL	G2B	712	152	128	52.18N	63.63E	U2	64B	N1	94B	n2	125B	NE	66B				
2041=LK	27	0915	17760	RUSS	RL	L4	900	512	141	31.77N	69.19E	AN	326B	WP	320B	NE	88B						
2042=LK	23	1231	17895	RUSS	RL	P5	0	0	0	53.82N	39.04E	U2	70B	NE	72B								
2043=LK	24	1130	17895	RUSS	RL	P5	436	110	128	44.13N	73.48E	WP	326B	AL	9B	AN	333B	U2	68B	N3	110B	NE	68B
												KR	73B	BL	80A	KO	69A	N0	75B				
2044=LK	25	1016	17895	RUSS	RL	P5	1201	254	129	44.82N	74.37E	U2	68B	WP	326B	NE	71B	N0	77B				
2045=LK	26	0931	17895	RUSS	RL	P5	272	73	114	51.71N	49.59E	BK	72A	U2	70B	N1	110B						
2046=LK	25	0046	9750	FB	RL	P4	770	158	132	43.03N	77.41E	NE	69B	BL	76A	KR	74B	N3	108B				
2047=LK	28	1501	9660	UKR	VOA	MUN058	749	661	159	45.51N	73.15E	U2	67C	AN	330B	WP	324B						
2048=LK	17	1701	15380	UKR	RL	P3	314	41	106	53.19N	50.40E	N0	80B	U2	65B	KR	72A	IT	75A	BL	74B	KO	61A
												NE	70B	N0	80B								
2049=LK	20	1616	15380	UKR	RL	P3	0	0	0	0.00N	0.00E	u2	68A	ne	89B								
2050=LK	20	1701	15380	UKR	RL	P3	261	30	108	56.90N	38.89E	N0	75A	U2	65C	NE	95B	NE	91C	N0	80A	LV	345B
												WP	321B	DS	355B								
2051=LK	20	1901	15380	UKR	RL	P3	330	41	104	53.60N	44.35E	IT	76A	BL	75B	KO	63B	KR	70C	N0	85B	NE	73B
												SS	34B	GI	37B	FL	37B						
2052=LK	21	1916	15380	UKR	RL	P3	987	54	88	55.26N	27.77E	NE	69B	U2	67B	GI	30B						
2053=LK	22	1801	15380	UKR	RL	P3	707	138	131	43.11N	78.83E	BK	67B	U2	67B	NE	66B	DS	356B	WP	323B	FE	343B
												KR	72A	BL	78B	N0	75A						
2054=LK	16	0416	15380	UKR	RL	P6	4717	261	124	43.91N	75.54E	KR	72B	it	87A	b1	91C	KO	69B	NE	70B		
2055=LK	18	1716	15380	UKR	RL	P3	0	0	0	55.92N	54.44E	U2	61C	N0	75B								
2056=LK	17	0446	15380	UKR	RL	P6	1098	107	114	50.77S	176.50E	U2	63C	NE	78B	NE	78B						
2057=LK	19	1801	15380	UKR	RL	P3	1485	93	110	51.43N	54.25E	U2	68B	KR	71B	IT	77B	BL	75B	KO	69C	ne	84B
												SS	40B										
2058=LK	23	1651	17895	UKR	RL	P5	1879	492	167	38.41N	78.35E	GI	3B	SS	32B	AL	11B	FE	345B	LR	17B	BE	26B
												PS	13B										
2059=LK	21	1305	15280	UZBE	VOA	WOF086	2496	73	109	51.24N	51.80E	BL	79B	KR	72A	IT	78B						
2060=LM	11	2126	6195	????	????	????????????	0	0	0	48.50N	24.62E	BL	115B	KR	97B								
2061=LM	29	0646	9685	????	????	????????????	157	39	117	47.67N	25.86E	IT	113B	KO	84B	BL	118B						
2062=LM	18	2216	15100	????	????	????????????	121	33	112	49.13N	23.14E	KO	76B	BL	110B	IT	116B	KR	98B				
2063=LM	18	2216	15110	????	????	????????????	157	40	110	48.42N	24.48E	KO	80B	IT	114B	KR	98B						
2064=LM	18	2216	15150	????	????	????????????	121	35	111	49.29N	23.18E	KO	76B	BL	110B	IT	116B	KR	94C				
2065=LM	18	2216	15160	????	????	????????????	89	25	101	49.04N	23.89E	KO	77A	BL	110B	IT	116B	KR	94B				
2066=LM	21	0616	15345	????	????	????????????	233	47	100	49.00N	25.23E	IT	98D	KO	77B	KR	96B						
2067=LM	22	1805	15375	????	????	????????????	5830	433	131	45.45N	31.98E	LR	46B	AL	39B	BE	48B	FL	40B	PS	39B		
2068=LM	29	0746	17720	????	????	????????????	0	0	0	48.61N	25.84E	N1	152C	N0	122B								
2069=LM	29	0619	17730	????	????	????????????	0	0	0	0.00N	0.00E	n0	119B	n2	162B	n1	131B						
2070=LM	24	0601	17750	????	????	????????????	199	28	115	48.31N	28.22E	U2	91B	NE	91B	N0	116B	KR	95A	BL	115C		
2071=LM	29	0746	17785	????	????	????????????	0	0	0	48.61N	25.84E	N0	122A	N1	152C								
2072=LM	26	0851	17885	????	????	????????????	229	58	156	50.78N	26.56E	N0	115C	N1	148B	N2	160B						
2073=LM	19	0003	7180	AZ	RL	L3	0	0	0	50.41N	24.36E	NE	91B	SS	41B								
2074=LM	26	0846	17875	DARI	DW		103	25	103	48.80N	25.82E	KO	78A	IT	110B	BL	110B	KR	95B	U2	91B	ne	79B
2075=LM	24	2203	9009	HEBR	IBA		56	34	158	54.14N	26.27E	N0	109B	NE	68B	N3	174A	FL	40B	SS	39B	N1	147B
2076=LM	24	1731	17710	HEBR	IBA		123	31	128	51.66N	21.37E	N0	122A	NE	87B	BE	48B	FL	35B	LR	34B	SS	43B
2077=LM	14	0317	6065	RUSS	DW		0	0	0	48.19N	64.25W	LR	41D	BE	40D								



2078=LM	14	1616	6105	RUSS	RL	L9	208	46	118	46.43N	28.50E	KO	89B	BL	118B	IT	108C									
2079=LM	11	1631	6105	RUSS	RL	L9	175	29	123	46.57N	28.97E	U2	90C	KO	91B	BL	118B	IT	112A	KR	93C					
2080=LM	12	1705	6105	RUSS	RL	L9	2160	205	123	45.74S	170.83E	KO	88C	b1	110C	IT	70D	KR	67A							
2081=LM	16	2312	7155	RUSS	RL	B9A	0	0	0	57.06N	33.20E	NO	85B	N3	160B											
2082=LM	20	0209	7220	RUSS	RL	B4	989	50	55	51.07N	57.19W	BE	44B	FL	37B	LR	43B	PS	42B							
2083=LM	20	0346	7220	RUSS	RL	HA	0	0	0	49.42N	27.25E	IT	105C	KO	75B											
2084=LM	19	0101	7240	RUSS	VOA	MUN058	1621	59	98	51.63N	12.37E	U2	88B	ne	89B	FL	44B	SS	40B	BE	50B					
2085=LM	21	2305	7255	RUSS	RL	L1	0	0	0	55.16N	18.74E	BE	45B	FL	36B											
2086=LM	21	0235	7270	RUSS	VOA	KAV026	706	53	78	53.89N	14.47E	NE	70B	BE	47B	LR	44B									
2087=LM	21	0309	7285	RUSS	DW		3474	82	105	50.91N	31.73E	FL	36B	SS	40B	NE	84B									
2088=LM	28	0605	9660	RUSS	RL	L3	257	47	107	48.32N	29.18E	NE	92B	FL	42B	KO	81B	BL	110C							
2089=LM	29	0631	9660	RUSS	RL	L3	0	0	0	41.49N	54.42E	KO	84B	NE	88B											
2090=LM	25	1535	9715	RUSS	DW		0	0	0	0.00N	0.00E	ne	68B	u2	91C											
2091=LM	11	1137	11705	RUSS	VOA	KAV051	3936	577	87	59.81N	14.04W	BE	41D	LR	45D	SS	32D									
2092=LM	14	2250	11875	RUSS	RL	L6	6931	613	101	57.65N	5.36W	BE	45D	FL	40D	LR	45D	AL	43D							
2093=LM	15	0835	11875	RUSS	RL	B4	0	0	0	44.05N	26.16E	FL	44D	PS	43D											
2094=LM	10	1405	11875	RUSS	RL	L5	0	0	0	0.00N	0.00E	be	30D	f1	37D	1r	49D									
2095=LM	14	2107	11935	RUSS	RL	P5	0	0	0	23.04N	67.79E	FL	35D	BE	40D											
2096=LM	11	0421	11935	RUSS	RL	P5	6611	1027	115	50.94N	18.25E	BE	49D	FL	41D	PS	41D	SS	41D							
2097=LM	11	0746	11970	RUSS	RL	L6	0	0	0	57.86N	36.62E	NO	80A	N3	152B											
2098=LM	18	2203	15115	RUSS	RL	G11+G12	1237	40	100	51.64N	12.24E	NE	93B	FL	39B	SS	42B	AL	40B	U2	92C					
2099=LM	19	0546	15130	RUSS	RL	P2	0	0	0	30.06N	97.20E	NE	69B	KO	70C											
2100=LM	21	2105	15290	RUSS	RL	P1	1333	73	109	49.74N	27.65E	NE	91B	AL	38B	FL	37B	LR	44B	SS	43B	BE	47B			
2101=LM	17	0601	15340	RUSS	RL	L1	234	32	110	50.09N	23.36E	U2	89C	KR	95B	IT	110C	BL	103B	KO	70D	NE	92B			
2102=LM	21	1016	15340	RUSS	RL	L1	2586	438	114	52.34N	16.56E	BE	48B	PS	41B	SS	40B									
2103=LM	21	0002	15355	RUSS	RL	G1	0	0	0	51.00N	23.37E	NO	120A	NE	89B											
2104=LM	18	0818	15445	RUSS	RL	G1	0	0	0	8.57S	105.56E	NO	86B	NE	87B											
2105=LM	19	1331	15485	RUSS	IBA		144	31	108	49.46N	24.71E	U2	88C	NE	88B	KR	95B	IT	110B	BL	112C	KO	78B			
2106=LM	24	1301	17710	RUSS	IBA		0	0	0	0.00N	0.00E	u2	83C	ne	92B											
2107=LM	23	1346	17725	RUSS	RL	G2B	0	0	0	53.19N	17.99E	NE	78B	NO	124B											
2108=LM	26	0746	17725	RUSS	RL	G2B	0	0	0	0.00N	0.00E	ne	67B	u2	91B											
2109=LM	27	0705	17725	RUSS	RL	G2B	295	62	107	48.83N	28.07E	KO	77C	IT	104C	ne	70B	KR	95C							
2110=LM	27	0916	17725	RUSS	RL	G2B	0	0	0	55.92N	38.65E	NE	66B	NO	85B											
2111=LM	29	0605	17725	RUSS	RL	G2B	631	67	111	46.54N	37.59E	NE	90B	KO	83B	KR	93B									
2112=LM	29	1105	17725	RUSS	RL	G2B	0	0	0	26.22S	118.76E	NE	89B	NO	85C											
2113=LM	27	0831	17750	RUSS	RL	B3	0	0	0	54.65N	37.08E	NO	90C	NE	70B											
2114=LM	25	0703	17760	RUSS	RL	L4	0	0	0	0.00N	0.00E	ne	76B	kr	95B	n0	118A									
2115=LM	29	0616	17760	RUSS	RL	L4	120	35	107	47.28N	32.40E	KR	89C	KO	83A	NO	120B	N1	136B							
2116=LM	24	0620	17770	RUSS	RL	P6	771	89	124	44.79N	42.30E	NE	91B	U2	88B	NO	106B	NE	93B							
2117=LM	26	0616	17770	RUSS	RL	P6	0	0	0	13.66N	80.46E	U2	89B	NE	93B											
2118=LM	28	0832	17770	RUSS	RL	P6	0	0	0	49.24N	27.59E	N1	148B	NE	93B											
2119=LM	23	1205	17780	RUSS	BBC	WOOF	0	0	0	25.42N	90.67E	NE	77B	KO	78B											
2120=LM	25	1101	17855	RUSS	VOA	WOF070	264	31	112	48.73N	26.87E	KR	95A	NE	91B	BE	41B	NO	119C							
2121=LM	26	1116	17855	RUSS	VOA	WOF070	0	0	0	52.00S	179.63E	NE	88B	U2	90C											
2122=LM	26	0831	17865	RUSS	VOA	PHP034	0	0	0	48.52S	152.22E	U2	90B	NE	93B											
2123=LM	26	0716	17895	RUSS	RL	P5	0	0	0	48.89N	27.90E	NE	94B	U2	89C											
2124=LM	29	0531	17895	RUSS	RL	P5	0	0	0	54.40N	44.24E	NO	85B	NE	69B											
2125=LM	19	1231	21520	RUSS	VOA	KAV051	193	44	118	49.64N	25.42E	U2	90B	NO	120B	NE	92B									
2126=LM	15	0031	11770	TB	RL	P1	0	0	0	31.76N	66.02E	BK	91A	N3	127C											
2127=LM	25	0433	9660	UKR	RL	L3	61	41	151	52.56N	24.93E	NO	118B	N3	177A	NE	76B	AL	41B	SS	40B	PS	38B			
2128=LM	26	0515	9660	UKR	RL	L3	368	61	109	46.97N	33.17E	IT	106C	KR	92C	KO	84B									
2129=LM	27	1516	9660	UKR	VOA	MUN058	0	0	0	51.26N	22.95E	NE	88B	NO	120B											
2130=LM	29	1601	9660	UKR	VOA	MUN058	152	16	112	52.05N	15.27E	U2	88C	NE	86B	IT	112C	ko	84A	BL	113B					
2131=LM	23	0131	9760	UKR	VOA	WOF075	0	0	0	50.19N	24.64E	U2	87C	NO	120C											
2132=LM	27	0104	9760	UKR	VOA	WOF075	0	0	0	45.69N	34.08E	NO	115B	N1	140C											
2133=LM	19	1750	15380	UKR	RL	P3	0	0	0	53.93N	16.96E	NE	72B	AL	40B											
2134=LT	17	1514	15405	RUSS	DW		2107	112	129	39.51N	64.16E	NO	90B	IT	89B	KR	83A	IT	89A	BL	93C					
2135=M3	13	0227	5955	BR	RL	HB	0	0	0	45.67N	66.66W	PS	44D	BE	53D											
2136=M3	26	1016	9680	BULG	DW		0	0	0	41.73N	28.12E	KO	107B	IT	127C											

2137=M3	12	1007	11830	BULG	DW		2910	1282	134	41.91N	29.62E	FL	46D	AL	46D	PS	42D	SS	46D	AN	359D					
2138=M3	19	1840	15115	BULG	RFE	G3	1241	464	135	37.75N	32.54E	AL	44B	BE	54B	PS	44B	AN	359B	FL	46B	SS	54B			
2139=M3	23	1705	17750	RUSS	RL	B3	734	39	175	50.55N	15.96E	N1	172A	AN	9B	BE	51B									
2140=M3	27	1737	17750	RUSS	RL	B3	2392	459	124	46.44N	23.80E	BE	50B	AL	45B	SS	46B	KI	36B							
2141=M3	28	1816	17750	RUSS	RL	G16	0	0	0	1.22S	84.75E	U2	95B	NO	100B											
2142=M3	21	1952	7295	UKR	VOA	PHT021	0	0	0	50.02N	15.72E	IT	133B	KR	100C											
2143=M7	12	1846	11750	BULG	DW		86	20	138	43.15N	22.81E	IT	137A	BL	141A	KO	111A	KR	117B							
2144=M7	20	1931	15115	BULG	RFE	G3	0	0	0	54.56S	165.31E	U2	112B	NE	109B											
2145=M7	17	1901	15115	BULG	RFE	G3	0	0	0	39.49N	27.30E	NO	135B	U2	113B											
2146=M7	22	0931	15330	BULG	DW		149	23	138	41.51N	25.07E	BL	139A	KO	110B	KR	120A	U2	115A							
2147=MA	28	0335	9555	BULG	RFE	G3B	0	0	0	38.24S	150.92E	NE	73B	IT	75B											
2148=MA	12	2116	6115	CZEC	RFE	B3	103	27	72	52.58N	22.66E	KO	56A	b1	70B	KO	53B	IT	94B							
2149=MA	13	2301	6115	CZEC	RFE	B3	242	50	80	55.77N	30.05E	U2	66B	U2	66B	KO	50B									
2150=MA	10	2031	6115	CZEC	RFE	B3	213	44	107	55.45N	42.09E	U2	64B	NO	84A	U2	64B	KO	57B	BL	70C					
2151=MA	23	0040	9520	RUSS	RL	B7	1387	51	97	55.22N	44.81E	KR	65A	IT	72B	BL	70B									
2152=MA	26	2220	9660	TI	RL	HA	0	0	0	0.00N	0.00E	an	289B	u2	54A	n1	120C									
2153=MB	17	1514	15405	RUSS	DW		0	0	0	0.00N	0.00E	n0	90B	kr	86A	ko	73B									
2154=MF	11	0934	11830	BULG	DW		3953	193	158	45.76N	45.29E	N2	133B	LR	29D	SS	46D									
2155=MF	23	0525	9725	CZEC	RFE	G3A	0	0	0	54.01N	22.82E	KR	69B	BL	72A											
2156=MF	28	0324	9725	CZEC	RFE	G3A	0	0	0	0.00N	0.00E	b1	75A	kr	70B	it	122C									
2157=MF	28	0546	9725	CZEC	RFE	G3A	716	37	96	53.83N	40.12E	BL	75A	IT	76C	KO	60C									
2158=MF	29	0501	9725	CZEC	RFE	G3A	0	0	0	54.73N	19.31E	U2	69B	NE	68B											
2159=MF	15	0703	11855	CZEC	RFE	G4B	801	76	93	56.16N	42.99E	kr	70A	IT	70B	BL	64C	KO	58C							
2160=MF	15	0801	11865	CZEC	RFE	G4B	69	31	121	55.64N	41.81E	IT	70C	BL	65B	KO	53B	U2	67A	NO	85A	N2	126A			
2161=MF	13	0901	11865	CZEC	RFE	G4B	217	37	83	55.01N	28.87E	U2	70C	KR	70B	IT	72B	BL	68C	KO	52B					
2162=MF	20	1001	15170	CZEC	RFE	G4B	62	24	104	54.83N	41.83E	BK	66A	U2	67A	NE	68B	N2	128A	AL	24B	KO	59C			
												BL	70A	IT	75A	KR	69B									
2163=MF	20	1345	15170	CZEC	RFE	G4B	0	0	0	52.50N	53.30E	SS	32B	NE	70B											
2164=MF	20	1546	15170	CZEC	RFE	G4B	0	0	0	54.74N	37.79E	U2	68B	N2	135B											
2165=MF	21	0846	15170	CZEC	RFE	G8	445	37	98	54.57N	41.73E	KO	58B	IT	74A	KR	69A									
2166=MF	18	1401	15170	CZEC	RFE	G4B	0	0	0	0.00N	0.00E	n2	155B	u2	69B	ne	94B									
2167=MF	22	1833	15170	CZEC	RFE	G4B	215	29	90	55.02N	31.86E	KO	54B	BL	70B	IT	76A									
2168=MF	19	0951	15170	CZEC	RFE	G8	846	210	112	52.79N	54.57E	FE	3B	LR	31B	PS	17B	NE	69B							
2169=MF	17	0816	15170	CZEC	RFE	G8	0	0	0	54.99N	42.23E	NE	68B	NO	85B											
2170=MF	16	1116	15170	CZEC	RFE	G4B	0	0	0	53.99N	47.55E	PS	26D	NE	69B											
2171=MF	19	0750	15170	CZEC	RFE	G8	0	0	0	54.40N	14.99E	U2	69B	NE	66B											
2172=MF	9	2246	6160	POLI	VOA	KAV355	262	44	87	53.54N	26.02E	KO	55C	BL	82C	IT	77C	KR	74B							
2173=MF	15	2146	6160	POLI	VOA	KAV355	437	58	88	54.90N	33.49E	KO	55C	IT	75C	KR	68B									
2174=MF	12	2146	6160	POLI	VOA	KAV355	0	0	0	54.66N	38.10E	KO	58B	BL	72B											
2175=MF	14	2201	6160	POLI	VOA	KAV355	0	0	0	55.46N	30.81E	U2	67A	NO	93B											
2176=MF	20	0501	7260	POLI	BBC	WOOF	811	40	89	55.61N	36.61E	BK	64A	U2	66B	NE	67B									
2177=MF	28	0320	9705	POLI	RFE	G1B	0	0	0	53.56N	18.38E	KR	69B	BL	70A											
2178=MF	25	2035	9750	POLI	BBC	WOOF	3211	104	120	47.51N	63.02E	NE	72B	U2	70B	KO	72D	KR	77B	BL	80C	IT	78A			
2179=MF	26	1946	9750	POLI	BBC	WOOF	312	43	84	54.62N	31.46E	NE	72B	BL	70B	KO	56B	kr	80B							
2180=MF	27	2016	9750	POLI	BBC	WOOF	4873	264	122	46.15S	165.51E	U2	65C	IT	78B	BL	80A									
2181=MF	28	0401	9760	POLI	BBC	WOOF	0	0	0	55.16N	37.18E	U2	67B	BL	70B											
2182=MF	10	1735	11725	POLI	RFE	G4	0	0	0	24.61N	100.71E	IT	74C	KR	71C											
2183=MF	16	1701	7130	RUSS	VOA	KAV026	0	0	0	53.57N	18.44E	BL	70B	IT	90D											
2184=MF	28	1722	9690	RUSS	VOA	KAV051	0	0	0	51.10N	49.45E	NO	88B	N2	122C											
2185=MF	15	1245	11875	RUSS	RL	B4	0	0	0	53.15N	16.15E	KR	70A	BL	70A											
2186=MF	17	0016	7190	TB	RL	L1	869	73	109	51.90N	59.01E	KR	70B	KO	64A	BL	70B	NE	69B	U2	66A	NE	69B			
2187=MG	25	0131	9635	RUSS	VOA	WOF066	980	11	88	52.02S	179.23E	U2	93A	NE	91B	ko	90B	KR	95B							
2188=MG	20	1823	15405	RUSS	IBA		1518	611	153	42.52N	40.31E	AL	38B	BE	46B	AN	352B									
2189=MG	24	1832	17695	RUSS	BBC	WOOF	160	27	121	47.08N	30.40E	n0	103B	N3	169B	ne	84B	KR	96A	IT	109A					
2190=MG	24	1946	17750	RUSS	RL	G16	0	0	0	0.00N	0.00E	n1	130B	an	359B	fe	346B									
2191=MG	24	2017	17885	RUSS	RL	HC	584	108	151	43.35N	38.91E	NO	113B	n3	166A	N1	133B	N2	145B							
2192=MG	27	1935	17885	RUSS	RL	HC	0	0	0	51.60S	178.91W	NE	77B	KR	95B											
2193=MP	17	0401	7155	BR	RL	HD	3676	28	75	53.29N	10.81E	u2	91B	SS	40D	FL	39D	kr	85C	NE	71B	NE	71B			
2194=MP	16	0206	7155	BR	RL	G2B	1448	58	78	54.27N	16.58E	BE	46D	FL	33D	LR	42D	PS	39D	SS	44D	NE	69B			
2195=MP	18	0210	7155	BR	RL	G2B	340	10	72	52.48N	6.19E	BE	48B	FL	34B	LR	40B	SS	42B	NE	70B	U2	90D			

2196=MP	29	0816	17875	DARI	DW		132	28	108	48.96N	25.74E	KR	93A	N2	165C	BL	110B	KO	80B															
2197=MP	16	0114	7155	EST	RFE	G2B	1222	222	65	48.44N	29.74E	FL	35D	LR	45D	BE	47D	PS	39D	SS	41D	LS	50D											
2198=MP	9	0016	5955	RUSS	RL	HB	6996	57	111	48.70N	24.92E	U2	92B	U2	92B	BE	50D	ca	58D	FL	37D													
2199=MP	26	2210	9660	TI	RL	HA	636	101	116	45.40N	36.32E	SS	44B	FL	35B	ne	78B	IT	106C	KO	88C	KR	90D											
2200=MP	28	2201	9660	TI	RL	HA	197	42	116	47.41N	32.29E	NO	110B	U2	92B	NE	91B	IT	109B	KO	83B													
2201=MP	29	0001	9660	TI	RL	HA	0	0	0	51.84S	174.03E	U2	90B	NE	91B																			
2202=MP	18	1746	15130	BR	RL	P6	1276	240	141	40.98N	71.45E	NE	75B	NO	87B	N2	104B																	
2203=MP	21	1716	15130	BR	RL	P6	2454	341	142	40.28N	70.17E	SS	37B	BE	30B	FL	25B	LR	23B	PS	20B	NO	85B											
2204=MP	23	2119	9725	CZEC	RFE	G2B	1551	71	103	58.49N	32.05E	SS	32B	FL	37B	BE	33B	NO	80B															
2205=MP	23	2216	9725	CZEC	RFE	G2B	665	106	128	42.23N	69.80E	NE	78B	NO	80B	NO	80B	U2	75B	KO	70B	KR	78B											
												BL	84A	IT	82B	NE	78B	FE	350B	AN	332B	NO	80B											
2206=MP	25	2301	9725	CZEC	RFE	G2B	774	109	125	43.47N	65.88E	IT	82B	BL	84A	KO	70B	KR	78B	U2	75B	NO	85B											
												SS	32B	FL	35B	AN	328B																	
2207=MP	26	2135	9725	CZEC	RFE	G2B	130	39	102	56.22N	23.10E	SS	33B	NE	78B	AN	331B	LR	34B	NO	78B	NO	105B											
2208=MP	28	2126	9725	CZEC	RFE	G2B	597	71	118	47.52N	55.54E	AN	334B	FL	40B	SS	33B	KO	70B	IT	82B	BL	84A											
												KR	78B	U2	75B	NO	90B																	
2209=MP	29	2201	9725	CZEC	RFE	G2B	448	87	127	44.69N	63.36E	U2	74B	NO	90B	NE	77B	N2	110B	N1	101B	KR	78B											
												KO	70B	BL	84A	IT	82B																	
2210=MP	29	2323	9725	CZEC	RFE	G2B	1425	160	144	48.07N	63.58E	N2	109B	N1	97B	NO	85C																	
2211=MP	20	1646	15130	EST	RFE	P6	1040	59	114	49.32N	54.02E	NE	75B	KO	69B	BL	82A	IT	80A															
2212=MP	19	1616	15130	EST	RFE	P6	1044	334	133	44.74N	67.91E	NE	74B	BE	30B	FL	26B	LR	26B	FE	350B													
2213=MP	21	1616	15130	EST	RFE	P6	1360	326	136	42.18N	68.47E	NE	77B	LR	25B	BE	28B	PS	23B	FL	24B	AL	17B											
												SS	37B																					
2214=MP	18	1612	15130	EST	RFE	P6	1557	294	127	45.92N	63.47E	PS	20B	BE	29B	FL	25B	SS	51B	NE	74B													
2215=MP	25	2201	9435	HEBR	IBA		1032	185	136	41.36N	71.57E	U2	73A	NO	83B	SS	32B	N2	105B															
2216=MP	16	1810	15130	LAT	RFE	P6	3164	369	125	44.18N	66.61E	FE	353D	SS	36D	NE	76B																	
2217=MP	22	1835	15130	LAT	RFE	P6	995	63	107	50.28N	47.12E	KO	70B	BL	81B	KR	77A																	
2218=MP	18	1415	15130	LAT	RFE	P6	1375	121	121	47.74N	58.54E	FL	26B	NE	73B	U2	74A	NO	85B															
2219=MP	16	1546	15130	LITH	RFE	P6	0	0	0	24.07N	91.96E	NE	77B	NO	80C																			
2220=MP	20	1946	15130	LITH	RFE	P6	0	0	0	47.96N	62.99E	NE	73B	KO	69B																			
2221=MP	17	1911	15130	LITH	RFE	P6	445	81	114	48.46N	59.01E	AL	21B	BE	28B	SS	35B	AN	332B	FL	24B	FE	355B											
												NE	75B	NO	80B	KO	60B	BL	80D	IT	85C	KR	76B											
												KO	71A	IT	85C	KR	76B																	
2222=MP	19	1946	7220	RUSS	RL	L2	0	0	0	54.41N	40.31E	NE	70B	NO	88B																			
2223=MP	20	2001	7220	RUSS	RL	B4	0	0	0	0.00N	0.00E	u2	70B	ne	80C	ne	73B																	
2224=MP	17	1931	7220	RUSS	RL	L2	893	286	126	45.24N	68.93E	U2	73B	NE	71B	AN	331B																	
2225=MP	21	2213	7220	RUSS	RL	B4	1655	4	75	52.05N	44.44E	SS	36B	FL	44B	U2	71B																	
2226=MP	22	1935	7220	RUSS	RL	L2	0	0	0	56.20N	40.31E	NE	65B	NO	83B																			
2227=MP	18	1905	7220	RUSS	RL	L2	0	0	0	52.02N	41.45E	NO	93B	NE	76B																			
2228=MP	18	2246	7220	RUSS	RL	B4	0	0	0	47.98N	68.47E	NE	70B	AN	333B																			
2229=MP	16	1902	7220	RUSS	RL	L2	0	0	0	43.21N	67.07E	NO	85C	NE	77B																			
2230=MP	20	2016	7295	RUSS	RL	L2	385	44	89	54.89N	33.75E	IT	72B	KR	75C	BL	71B	KO	58C															
2231=MP	24	2116	9530	RUSS	VOA	KAV026	9318	469	144	17.34N	90.39E	IT	84B	ko	56C	BL	92B	NO	86B	f1	44B	SS	32B											
2232=MP	26	2116	9530	RUSS	VOA	KAV026	644	169	126	49.18N	51.91E	NE	77B	SS	33B	FL	38B	N1	110C	n0	75C													
2233=MP	25	0016	9595	RUSS	RL	G3A	0	0	0	53.15N	9.62E	U2	75C	NE	70B																			
2234=MP	23	1746	9635	RUSS	BBC	WOOF	643	133	139	47.50N	61.65E	NE	74B	NO	85B	N1	101B	N2	111B															
2235=MP	26	1731	9635	RUSS	BBC	WOOF	574	107	123	45.27N	65.43E	U2	73B	N2	107C	BL	76C	IT	80B	KR	78B	KO	72A											
												NE	76B	N1	100C	NO	85C																	
2236=MP	28	1701	9635	RUSS	BBC	WOOF	836	159	143	46.60N	62.28E	U2	72B	N2	110B	N1	103B	n1	85B	BE	33B	SS	33B											
2237=MP	27	1501	9690	RUSS	VOA	KAV051	119	21	95	53.04N	24.59E	NO	110B	U2	74B	NE	76B	BL	84A	KR	80B	IT	80B											
2238=MP	27	1619	9690	RUSS	VOA	KAV051	0	0	0	47.18N	59.72E	NO	86B	NE	76B																			
2239=MP	28	1522	9690	RUSS	VOA	KAV051	889	161	142	44.59N	64.49E	NO	86B	N1	105B	N2	107B	U2	73B															
2240=MP	29	1616	9690	RUSS	VOA	KAV051	518	86	126	45.49N	63.58E	U2	74B	NO	85B	N2	110B	U2	74B	NO	85B	BL	83B											
												KO	72B	IT	81A	NE	73B	KR	78B															
2241=MP	24	0031	9705	RUSS	RL	B5	291	33	106	51.46N	44.15E	BK	70A	U2	73B	AL	36B	BE	35B	BL	84A	IT	82B											
												KR	78B	KO	70B	SS	32B	NE	78B	GI	38B	LR	39B											
												PS	22B	FL	37B	NO	85	AN	326B	LV	1B													
2242=MP	26	0002	9705	RUSS	RL	B5	769	105	123	44.36N	64.28E	NO	85B	SS	32B	AN	332B	KO	70B	BL	84A	IT	82B											
												KR	78B																					
2243=MP	27	2316	9705	RUSS	RL	B5	0	0	0	45.40N	65.74E	NE	75C	N2	108B																			



2294	=MU	26	0931	17895	RUSS	RL	P5	0	0	0	53.35N	10.81E	N1 115B													
2295	=MU	27	0818	17895	RUSS	RL	P5	0	0	0	53.91N	27.83E	U2 74B	NE	70B											
2296	=MU	24	0123	9750	TB	RL	P4	0	0	0	35.34N	82.45E	NE 74B	SS	37B											
2297	=MU	25	0046	9750	TB	RL	P4	686	136	131	40.97N	71.16E	NO 80B	NE	75B											
2298	=MU	26	0016	9750	TB	RL	P4	0	0	0	30.14N	83.48E	IT 82B	KO	70B	BL	84A	KR	78B	N3	115B					
2299	=MU	29	0131	9750	TB	RL	P4	967	271	134	40.38N	72.48E	U2 75C	NO	83B											
2300	=MU	15	0031	11770	TB	RL	P1	296	55	106	51.50S	177.68E	NO 82B	U2	75B	NE	77B	AN	328B							
2301	=MU	15	0151	11770	TB	RL	P1	0	0	0	25.82N	68.54E	BK 91A	U2	72B	NO	88B									
2302	=MW	27	1615	9635	RUSS	BBC	WOOF	0	0	0	49.69N	63.18E	AL 24D	BE	38D											
2303	=MW	9	1808	11710	RUSS	VOA	WOF066	0	0	0	50.24N	139.61E	BL 75A	IT	75C											
2304	=MW	11	0136	11935	RUSS	RL	P5	0	0	0	55.94N	59.64E	FE 312D	WP	317D											
2305	=MX	12	1220	11765	????	?????????????21552	387	144	144	5.02N	80.18E	NO 72A	N1	92B												
2306	=MX	12	0701	11745	ARAB	????	IRN	272	43	113	48.62N	29.62E	IT 103A	BL	105B	KR	100B	n0	115B							
2307	=MX	23	0314	9505	EST	RFE	P2	3077	408	123	51.55N	29.91E	U2 91B	n0	85C	FL	35D	LR	42D	IT	104B	BL	100C			
2308	=MX	24	1916	9505	LITH	RFE	HB	2308	807	157	15.94N	65.99E	KO 78C	KR	94C											
2309	=MX	23	0336	9705	POLI	RFE	G1B	3444	473	125	49.38N	33.37E	SS 40B	FL	37B	LR	40B	PS	39B	BE	41B					
2310	=MX	23	1910	9705	POLI	RFE	B2	1557	282	116	56.16N	17.82E	FL 42B	FE	351B	BE	45B									
2311	=MX	24	1608	9705	POLI	RFE	B2	0	0	0	47.05N	34.97E	BE 42B	FL	37B	LR	43B	SS	41B	BE	45B	SS	36B			
2312	=MX	24	1827	9705	POLI	RFE	B2	6610	440	126	52.18N	24.35E	AL 37B	BE	46B											
2313	=MX	25	1842	9705	POLI	RFE	B2	0	0	0	4.73S	81.68E	BE 45B	LR	43B	AL	38B									
2314	=MX	28	0505	9705	POLI	RFE	G1B	0	0	0	0.00N	0.00E	FL 42B	LR	35B											
2315	=MX	11	0635	11725	POLI	RFE	G4	13488	712	98	57.41N	6.87W	ne 67B	ss	42B	ne	68B	ss	42B							
2316	=MX	11	0606	11970	RUSS	RL	L6	0	0	0	57.29N	9.09W	BE 48D	FL	37D	PS	40D									
2317	=N1	17	1644	15355	RUSS	RL	G7	0	0	0	58.13N	27.70E	FL 37D	PS	40D											
2318	=NB	26	1855	9505	LAT	RFE	HB	0	0	0	42.71N	32.24E	IT 60A	BL	50C											
2319	=ND	9	0718	11965	RUSS	VOA	PHT021	6743	1407	24	40.69N	119.23E	GI 34B	SS	47B											
2320	=ND	19	0917	15410	RUSS	VOA	PHT349	0	0	0	46.88S	173.12E	AL 343D	FL	346D	LR	346D	LV	318D	PS	340D					
2321	=NI	11	0305	11605	HEBR	IBA		0	0	0	60.25N	34.50E	N2 39C	NE	60B											
2322	=NI	22	1737	15585	HEBR	IBA		52	25	126	60.32N	31.82E	DS 17D	NO	72B											
2323	=NI	20	0345	7230	PERE	BBC	CYPRUS	0	0	0	60.46N	29.51E	NO 72A	N1	120B	N2	135A									
2324	=NI	17	2231	7130	RUSS	VOA	KAV105	0	0	0	51.66S	179.29E	NO 72B	N2	141B											
2325	=NI	29	1312	9520	RUSS	RL	HB	0	0	0	59.57N	33.51E	U2 57B	NE	83B											
2326	=NI	24	0316	9650	RUSS	DW		0	0	0	57.22N	35.51E	NO 75C	N1	115C											
2327	=NI	26	0523	9680	RUSS	RL	L2	0	0	0	59.68N	32.07E	N3 155B	NE	62B											
2328	=NI	29	0649	9680	RUSS	RL	L2	151	47	137	56.20N	35.55E	NO 75B	N2	137B											
2329	=NI	10	1436	11835	RUSS	VOA	MUN058	0	0	0	58.82N	26.57E	NO 88B	N2	139B	N1	118B									
2330	=NI	18	1738	15245	RUSS	BBC	WOOF	4571	575	130	54.26N	44.69E	NO 81B	U2	55B											
2331	=NI	19	2031	15355	RUSS	RL	G7	0	0	0	45.23S	168.89E	BE 35B	SS	33B	FL	30B									
2332	=NI	17	1647	15355	RUSS	RL	G7	0	0	0	58.65N	31.01E	U2 52C	NE	63B											
2333	=NI	23	1727	17750	RUSS	RL	B3	0	0	0	46.31N	38.58E	GI 25B	LR	33B											
2334	=NI	27	1731	17750	RUSS	RL	B3	0	0	0	58.25N	17.63E	FE 13B	SS	42B											
2335	=NI	28	1545	17795	RUSS	DW		92	42	133	59.67N	28.51E	NO 90B	U2	51A											
2336	=NI	23	1104	17865	RUSS	VOA	KAV095	0	0	0	58.87N	28.29E	N2 147B	N1	122B	NO	77B									
2337	=NI	22	0235	7295	UKR	RL	L4	0	0	0	55.30N	37.32E	NO 80B	N1	128B											
2338	=NI	16	0346	7295	UKR	RL	L4	0	0	0	60.25N	29.52E	NE 68B	N2	135C											
2339	=NS	22	1649	15165	????	?????????????		0	0	0	0.00N	0.00E	NO 73B	N1	120B											
2340	=NS	16	1935	15340	ARM	RL	L1	629	31	126	45.21N	35.76E	ko 88A	it	109A	kr	195B									
2341	=NS	18	1931	15340	ARM	RL	L1	121	48	102	54.80N	20.01E	IT 108A	BL	107A	NO	110B									
2342	=NS	15	2020	11825	CZEC	RFE	G2A	977	153	50	56.21N	54.26W	NO 111B	AL	36B	FL	38B	NE	68B							
2343	=NS	15	2304	11825	CZEC	RFE	G2A	678	79	146	38.01N	46.84E	AL 30D	BE	35D	KI	28D	LR	44D							
2344	=NS	13	1922	11825	CZEC	RFE	G8	0	0	0	47.88N	25.22E	NO 110A	PS	34D	LR	41D	FL	36D	BE	41D	NO	110A			
2345	=NS	12	1846	11825	CZEC	RFE	G8	1769	70	129	41.04N	44.69E	N1 128A													
2346	=NS	10	0515	11855	CZEC	RFE	G4B	0	0	0	45.93N	39.80E	IT 115B	KR	99B											
2347	=NS	12	0420	11855	CZEC	RFE	G9+G10	2657	419	119	50.26S	148.26E	IT 103A	BL	108B	ko	60C	KR	97B	U2	96B					
2348	=NS	10	0601	11855	CZEC	RFE	G4B	12200	114	112	48.35N	23.01E	FL 37D	SS	42D											
													NO 85B	U2	95B	NO	85B	f1	37D	ps	39D	BL	108D			
													IT 110D													
													U2 95C	FL	37D	SS	42D									

2349=NS	11	0406	11855	CZEC	RFE	G9+G10	572	36	127	43.86N	37.97E	FL	37D	SS	42D	KR	99C	IT	107A	BL	108A	KO	90C
2350=NS	14	0437	11855	CZEC	RFE	G9+G10	7597	614	87	57.86N	20.84W	FL	39D	KI	35D	LR	40D	PS	43D	BL	n0	80B	
2351=NS	10	0713	11855	CZEC	RFE	G4B	0	0	0	45.93N	39.80E	FL	37D	SS	42D								
2352=NS	13	0401	11855	CZEC	RFE	G9+G10	246	26	123	46.81N	29.66E	KR	98B	IT	111B	IT	111B		BL	112A	KO	86C	
2353=NS	15	0707	11855	CZEC	RFE	G4B	6855	1110	114	51.50N	18.87E	FL	39D	LR	42D	PS	42D		SS	41D			
2354=NS	11	0544	11855	CZEC	RFE	G4B	8528	54	116	46.93N	29.84E	FL	35D	PS	40D	SS	42D		U2	93A			
2355=NS	9	0401	11855	CZEC	RFE	G9+G10	179	29	116	47.01N	30.70E	U2	96B	NO	110B	KR	97A	IT	112C	BL	110B	KO	82B
2356=NS	11	0836	11865	CZEC	RFE	G4B	0	0	0	56.20N	25.00W	BE	51D	FL	37D								
2357=NS	19	1846	15160	CZEC	DW		262	38	119	46.06N	32.50E	NE	95B	KO	88B	BL	108B	IT	110B	KR	100B		
2358=NS	21	1149	15170	CZEC	RFE	G4B	7937	368	117	53.07N	15.73E	BE	48B	FL	39B	LR	43B	PS	40B				
2359=NS	16	1111	15170	CZEC	RFE	G4B	7560	1264	152	7.08S	81.65E	AL	29D	BE	50D	FL	37D	PS	23D				
2360=NS	22	1441	15170	CZEC	RFE	G4B	6161	450	134	45.73N	37.02E	PS	36B	LR	42B	AL	36B	BE	47B	FL	37B		
2361=NS	20	1347	15170	CZEC	RFE	G4B	893	63	83	54.50N	20.30E	NE	70B	FL	39B	BE	44B						
2362=NS	20	1646	15170	CZEC	RFE	G4B	0	0	0	41.51S	148.63E	NE	81B	KO	93C								
2363=NS	20	1546	15170	CZEC	RFE	G4B	169	25	110	49.98N	19.43E	NE	92B	ko	93C	BL	120C	IT	117C	KR	97A		
2364=NS	18	1406	15170	CZEC	RFE	G4B	4481	665	131	40.24N	46.35E	SS	45B	FL	38B	BE	45B						
2365=NS	19	2258	7130	RUSS	VOA	KAV105	0	0	0	55.23N	23.93E	NO	102B	N2	162C								
2366=NS	23	0038	9520	RUSS	RL	B7	0	0	0	57.41N	5.53E	FL	36B	BE	46B								
2367=NS	25	0139	9635	RUSS	VOA	WOF066	0	0	0	0.00N	0.00E	ne	73B	b1	108B								
2368=NS	9	0246	11770	RUSS	RL	P1	0	0	0	40.24N	46.25E	U2	92B	BE	45D								
2369=NS	22	2331	15115	RUSS	RL	G11+G12	3763	170	121	44.32N	37.97E	U2	92B	FL	38B	BE	47B						
2370=NS	22	2231	15130	RUSS	RL	G4B	283	77	124	50.57N	30.62E	NO	109B	KO	70D	SS	44B	FL	38B	PS	38B	AL	35B
2371=NS	17	2120	15340	RUSS	RL	G15	364	92	157	48.95N	39.09E	N3	154B	N2	140B	NO	102C						
2372=NS	22	1710	15405	RUSS	DW		0	0	0	48.28N	27.38E	KR	95B	BL	110B								
2373=NS	25	1904	17695	RUSS	BBC	WOOF	0	0	0	70.36S	165.88E	N3	105B	N1	125A								
2374=NS	24	1846	17710	RUSS	IBA		0	0	0	47.26N	35.56E	NO	110B	N3	161B								
2375=NS	28	1843	17770	RUSS	RL	P4	2804	689	149	26.68N	66.18E	SS	45B	PS	43B	GI	18B	FL	17B				
2376=NS	27	1922	17885	RUSS	RL	HC	0	0	0	0.00N	0.00E	ne	75B	kr	96B	n0	112C						
2377=NU	18	2053	15410	????	????????????	0	0	0	0	47.08N	133.37E	AN	288B	WP	313B								
2378=NU	24	1826	9770	RUSS	BBC	CYPRUS	908	279	56	52.65N	138.65E	LV	319B	AN	291B	DS	321B	WP	320B				
2379=NU	18	0727	15430	RUSS	VOA	PHT349	0	0	0	61.08N	168.77E	AN	288B	DS	326B								
2380=NW	10	2124	11885	UKR	RL	L6	0	0	0	55.94N	59.64E	NO	72A	N1	92B								
2381=P	16	0646	7160	MCO	????		0	0	0	53.14N	18.44E	N3	191A	NO	123B								
2382=PA	21	1446	15270	EST	VOA	WOF058	0	0	0	56.45N	18.23E	U2	60B	NE	56B								
2383=PA	28	1542	17855	EST	VOA	TAN044	1591	3	82	58.81N	5.67E	be	38B	SS	34B	PS	34B	NO	79B	NO	135B		
2384=PA	25	1735	17685	HEBR	IBA		0	0	0	58.96N	27.82E	U2	55C	BE	38B								
2385=PA	22	0546	15145	POLI	RFE	G2	0	0	0	57.69N	20.50E	KO	30B	IT	54C								
2386=PA	24	0301	9690	RUSS	DW		0	0	0	58.83N	19.56E	KO	25B	DS	24B								
2387=PA	23	1701	17750	RUSS	RL	B3	377	32	73	61.01N	34.49E	U2	50A	KO	35C	KR	48A	IT	52B	ne	61B		
2388=PA	23	1215	17780	RUSS	BBC	WOOF	0	0	0	57.24N	19.83E	KR	48B	KO	30C								
2389=PA	16	1017	21455	RUSS	RL	L3	0	0	0	0.00N	0.00E	ne	57B	it	55A								
2390=PB	20	1846	7265	????	????????????	0	0	0	0	55.26N	24.26E	IT	75C	BL	63B								
2391=PB	24	2248	9535	????	????????????	0	0	0	0	48.77N	31.06E	NO	113A	N3	168B								
2392=PB	27	0355	9690	????	????????????	0	0	0	0	0.00N	0.00E	b1	105D	ne	80B	ko	86C						
2393=PB	10	1816	11810	????	????????????	0	0	0	0	0.00N	0.00E	n0	110B	n3	104B	n2	152B						
2394=PB	10	1848	11880	????	????????????	0	0	0	0	54.70N	39.34E	NO	88B	N3	150B								
2395=PB	21	2120	15120	????	????????????	2231	418	130	48.56N	30.93E	BE	47B	LR	44B	GI	28B	SS	40B	AL	39B			
2396=PB	19	0946	15125	????	????????????	0	0	0	0	41.21N	41.74E	NO	112B	N2	141B								
2397=PB	18	0716	15385	????	????????????	208	26	121	46.05N	32.01E	KR	97A	IT	110A	BL	110B	KO	89B					
2398=PB	22	1320	15410	????	????????????	0	0	0	0	40.61N	37.03E	N2	148A	AL	40B								
2399=PB	28	0435	17685	????	????????????	0	0	0	0	47.27N	29.98E	KR	96A	NO	118B								
2400=PB	24	1841	17700	????	????????????	2467	382	110	55.28N	12.64E	LR	43B	BE	46B	SS	37B							
2401=PB	24	0601	17750	????	????????????	0	0	0	0	0.00N	0.00E	bk	93A	n0	111A	it	115B						
2402=PB	25	0746	17870	????	????????????	0	0	0	0	49.77N	25.27E	NE	93B	NO	120A								
2403=PB	19	1710	21655	????	????????????	200	29	120	47.01N	30.27E	BL	110A	KO	85B	IT	110B	ko	100A					
2404=PB	21	2124	15130	BR	RL	G8	2349	408	121	51.13N	22.93E	SS	40B	LR	44B	FL	39B	PS	38B	AL	39B		
2405=PB	20	2125	15130	BR	RL	G8	0	0	0	40.17N	44.31E	FE	10B	BL	108C								
2406=PB	20	1445	7245	EST	VOA	MUN058	166	21	81	55.15N	24.61E	IT	75A	BL	63B	KO	45C	KR	65A				
2407=PB	10	0517	11880	F	EUR		0	0	0	48.81N	34.59E	NO	108B	N3	162B								
2408=PB	24	2204	9009	HEBR	IBA		138	42	149	47.13N	30.85E	NO	117A	N3	169A	n1	134B	N2	153B				

2409=PB 23 2206 9857 HEBR IBA 3020 64 110 56.69N 23.18E NO 95B SS 40B PS 35B FL 37B  
2410=PB 25 1731 17685 HEBR IBA 1729 31 113 47.92N 27.88E KR 96A fl 45B NE 96B U2 93B  
2411=PB 22 1916 15350 LUX EUR 0 0 0 76.21S 141.35E N1 144A NO 155A  
2412=PB 18 0301 7130 RUSS DW 0 0 0 0.00N 0.00E u2 92A ne 63B bl 103B  
2413=PB 20 2201 7130 RUSS VOA KAV105 419 76 122 49.45N 33.89E U2 88C NE 85C NO 107B  
2414=PB 16 2250 7130 RUSS VOA KAV105 0 0 0 43.91N 40.37E BL 105B KR 95B  
2415=PB 22 2035 7155 RUSS DW 602 61 125 43.34N 37.29E KR 97B BL 110B IT 110B KO 95C  
2416=PB 16 0121 7165 RUSS RL HC 11597 945 121 53.98N 20.58E LR 39D BE 46D AL 39D FL 38D  
2417=PB 22 0139 7220 RUSS RL B4 2820 391 120 50.15N 24.30E LR 44B PS 39B SS 42B FL 37B BE 48B  
2418=PB 17 0239 7220 RUSS RL HA 0 0 0 59.37N 5.06W BE 45D AL 41D  
2419=PB 21 0138 7240 RUSS VOA MUN058 0 0 0 54.84N 20.38E NO 110B NE 68B  
2420=PB 16 0238 7250 RUSS RL G2 9744 1453 140 28.24N 55.74E BE 45D FL 39D PS 37D SS 52D LR 43D  
2421=PB 16 0334 7285 RUSS DW 10909 1622 130 41.48N 44.13E BE 46D FL 37D SS 45D  
2422=PB 23 0412 9520 RUSS RL B7 260 43 112 48.73N 29.31E IT 105B BL 100C KO 78C KR 93B LR 42B PS 38B  
AL 39B  
FL 37B LR 40B PS 34B BE 46B AL 40B  
2423=PB 23 2339 9520 RUSS RL B8 3858 300 114 56.87N 11.37E LR 45B PS 35B AL 38B  
2424=PB 26 0442 9520 RUSS RL B7 2995 297 102 59.32N 3.25W LR 39D BE 46D AL 38B  
2425=PB 24 2216 9530 RUSS VOA KAV095 116 28 116 49.07N 24.07E KR 96B IT 112A KO 76B  
2426=PB 27 0217 9565 RUSS VOA WOF058 0 0 0 0.00N 0.00E it 106C b1 115C ne 68B  
2427=PB 23 0101 9570 RUSS VOA WOF058 0 0 0 51.47N 8.97E BK 70A U2 92A  
2428=PB 24 2331 9680 RUSS RL L2 0 0 0 0.00N 0.00E u2 94A n3 169A ne 91B  
2429=PB 25 0310 9690 RUSS DW 287 53 116 45.99N 31.92E KO 88B IT 110B KR 97C  
2430=PB 26 0315 9690 RUSS DW 210 47 113 47.27N 28.16E KO 85B IT 112B KR 97C  
2431=PB 25 1531 9715 RUSS DW 475 38 121 46.17N 35.65E KO 85C IT 101D BL 105A  
2432=PB 12 0235 11605 RUSS IBA 3624 958 139 48.40N 38.98E BE 41D DS 20D FE 17D FL 35D GI 16D LR 39D  
PS 41D SS 42D  
N3 155B NO 88B  
2433=PB 10 1242 11705 RUSS VOA KAV051 0 0 0 55.52N 36.30E IT 113A KO 65C KR 100C  
2434=PB 13 1716 11710 RUSS VOA WOF066 120 28 118 50.22N 20.66E LR 45B PS 35B AL 38B  
2435=PB 10 1440 11835 RUSS VOA MUN058 134 42 99 51.54N 19.71E IT 100C BL 110C KO 60C KR 80C  
2436=PB 12 2045 11835 RUSS VOA KAV051 0 0 0 16.50N 69.42E BE 42D FL 38D  
2437=PB 12 1631 11845 RUSS BBC CYPRUS 256 37 117 46.42N 31.73E KR 97A KO 85C U2 97C NO 116B  
2438=PB 11 1718 11855 RUSS VOA MUN058 13464 766 142 19.93S 102.13E NO 95B KR 97B BL 105B ko 82B  
2439=PB 12 2318 11915 RUSS RL G8 9069 430 76 59.66N 28.98W PS 38D BE 42D FL 35D  
2440=PB 12 0131 11925 RUSS VOA KAV095 175 7 102 51.93N .66E KR 100A U2 90C BE 43D FL 40D PS 35D  
2441=PB 15 2254 11935 RUSS RL P5 10190 785 116 56.50N 14.46E BE 42D FL 40D AL 39D LR 41D PS 36D  
2442=PB 11 0542 11935 RUSS RL L5 13133 499 143 29.16S 91.09E BE 50D ki 41D LR 49D PS 39D  
2443=PB 17 1238 15120 RUSS VOA KAV051 516 47 116 45.18N 35.48E KO 88B IT 100D KR 97A  
2444=PB 22 2231 15130 RUSS RL G4B 0 0 0 49.41N 23.13E U2 91B LV 22B  
2445=PB 16 1215 15270 RUSS BBC WOOF 386 68 121 45.39N 31.87E IT 114C BL 110C KO 91C  
2446=PB 22 1610 15290 RUSS RL P1 1058 333 148 49.28N 31.01E FE 11B DS 27B AN 2B BE 46B DS 25B AL 39B  
PS 37B FE 18B LV 15B KI 30B  
NE 69B KI 30B PS 38B AN 1B GI 34B SS 43B  
LR 43B GI 29B AL 38B  
2447=PB 17 1921 15290 RUSS RL P1 534 65 83 54.77N 22.11E LR 43B GI 29B AL 38B  
2448=PB 20 2125 15290 RUSS RL P1 6615 672 145 37.76N 43.55E PS 31B BE 47B SS 42B FL 41B AL 38B  
2449=PB 20 1641 15290 RUSS RL P1 2854 460 130 46.45N 36.22E AN 2B FE 18B LV 24B  
2450=PB 20 2146 15340 RUSS RL G15 3534 624 167 44.48N 27.89E AL 32B FL 33B LR 35B U2 90C  
2451=PB 21 1806 15355 RUSS RL G7 3052 456 136 36.51N 55.55E NE 91B N2 145C  
2452=PB 21 1916 15355 RUSS RL G7 0 0 0 47.44N 36.32E NE 91B LV 18B DS 26B FL 37B GI 30B FE 13B  
2453=PB 21 2135 15355 RUSS RL G7 585 88 114 48.52N 32.49E LR 44B AL 40B AN 357B PS 38B  
FE 18B KI 28B LV 18B WP 351B DS 22B SS 39B  
AN 2B  
2454=PB 21 0408 15355 RUSS RL G15 960 436 157 52.12N 29.59E FL 37B PS 32B LR 43B BE 45B  
2455=PB 21 1646 15355 RUSS RL G7 12170 556 138 41.40N 45.13E BE 50B FL 42B  
2456=PB 19 0453 15355 RUSS RL G15 0 0 0 43.14N 33.33E NE 71B FL 41B LR 42B PS 41B  
2457=PB 20 0105 15370 RUSS RL P6 752 45 77 53.48N 12.16E NO 108C GI 28B FE 18B LV 17B AL 37B AN 358B  
2458=PB 18 1946 15390 RUSS BBC CYPRUS 857 138 133 49.61N 33.32E DS 15B  
u2 94A ne 80B  
2459=PB 20 1916 15390 RUSS BBC CYPRUS 0 0 0 0.00N 0.00E NO 115C NE 91B AN 352B  
2460=PB 19 0031 15445 RUSS RL G1A 368 70 117 48.98N 30.39E NO 142A KR 98B IT 110B BL 110B KO 87A  
2461=PB 19 1334 15485 RUSS IBA 125 41 122 44.36N 38.14E N2 142A KR 98B IT 110B BL 110B KO 87A  
2462=PB 28 0901 17685 RUSS IBA 0 0 0 49.41N 25.81E NO 120B NE 94B

2463=PB	25	1913	17695	RUSS	BBC	WOOF	2500	401	123	48.07N	28.09E	AL 40B	BE 51B	FL 40B	SS 43B	LR 43B		
2464=PB	25	2002	17695	RUSS	BBC	WOOF	151	53	151	47.83N	29.41E	NI 146A	U2 91B	PS 38B	AL 40B	SS 40B		
2465=PB	26	1810	17695	RUSS	BBC	WOOF	583	52	77	53.92N	13.96E	NE 69B	AL 39B	BE 49B	PS 40B			
2466=PB	24	1301	17710	RUSS	IBA		22	2	107	51.50N	6.12E	BK 95B	U2 93B	NE 92B	KR 97A	LR 43B	AL 39B	
												BE 46B						
2467=PB	26	1216	17725	RUSS	RL	G2B	0	0	0	50.86N	24.24E	NE 89B	N2 164B					
2468=PB	29	1110	17725	RUSS	RL	G2B	0	0	0	48.63N	61.67W	BE 48B	LR 44B					
2469=PB	23	2139	17760	RUSS	RL	G11+G12	965	442	142	49.70N	31.78E	FE 15B	FL 36B	PS 36B	AL 39B	SS 40B	AN 359B	
2470=PB	25	0701	17760	RUSS	RL	L4	3837	202	100	51.54S	166.97E	U2 92B	NE 91B	BL 100C	KR 97B	IT 96C		
2471=PB	27	2046	17760	RUSS	RL	G11+G12	0	0	0	45.64N	33.17E	SS 44B	FL 40B					
2472=PB	26	1446	17780	RUSS	VOA	WOF070	0	0	0	54.37N	18.79E	NO 116A	NE 70B					
2473=PB	28	1543	17815	RUSS	IBA		1141	675	141	45.97N	30.68E	AN 359B	PS 41B	SS 43B				
2474=PB	23	1116	17855	RUSS	VOA	WOF070	0	0	0	0.00N	0.00E	ne 82B	u2 93B					
2475=PB	25	1101	17855	RUSS	VOA	WOF070	0	0	0	0.00N	0.00E	it 91B	b1 105C	ko 88B				
2476=PB	29	1717	17885	RUSS	RL	HC	4837	548	134	47.95N	33.19E	BE 45B	GI 30B	PS 39B				
2477=PB	16	1505	21455	RUSS	RL	L3	2992	117	138	34.05N	50.47E	IT 108A	BL 110B	NO 110B	ne 62B			
2478=PB	19	1231	21520	RUSS	VOA	KAV051	0	0	0	51.41S	168.40E	U2 90B	NE 92B					
2479=PB	19	1430	21530	RUSS	RL	G11+G12	241	46	108	47.64N	27.68E	IT 110C	KR 98B	KO 83B				
2480=PB	17	0731	21625	RUSS	VOA	PHT349	395	54	86	52.12S	178.95W	IT 105C	KR 101A	NE 90B				
2481=PB	20	1131	21745	RUSS	RL	G9+G10	232	22	122	46.32N	31.43E	bk 92A	IT 108A	KR 98A	BL 112A	KO 86C		
2482=PB	27	0101	9760	UKR	VOA	WOF075	0	0	0	0.00N	0.00E	u2 90B	ne 94B	ne 88B				
2483=PB	12	0228	11840	UKR	VOA	TAN044	4790	1037	143	50.79N	29.38E	AL 39D	DS 20D	FE 18D	GI 34D	LR 39D	LV 17D	
2484=PB	15	0556	11885	UKR	RL	P4	0	0	0	50.69N	58.06W	BE 46D	PS 41D					
2485=PB	15	2250	11885	UKR	RL	P3	7899	996	129	51.59N	27.71E	LR 40D	DS 25D	BE 44D	FL 39D	AL 38D		
2486=PB	24	1655	17895	UKR	RL	P5	3203	556	135	39.09N	43.15E	AL 39B	BE 46B	SS 48B	LR 42B			
2487=PB	24	2020	17895	UKR	RL	P6	0	0	0	47.90N	27.98E	AL 40B	FL 40B					
2488=PB	18	1516	21650	UKR	VOA	TAN060	0	0	0	51.09N	22.73E	NE 89B	NO 121B					
2489=PB	24	2305	9530	UZBE	VOA	KAV051	104	47	140	49.65N	29.56E	NE 91B	N3 170B	NI 146B	N2 154B	NO 111B		
2490=PF	22	2223	7265	RUSS	VOA	KAV026	0	0	0	28.08N	110.71E	FE 315B	AN 292B					
2491=PF	23	2038	9435	RUSS	IBA		0	0	0	58.84N	151.02E	LV 322B	AN 292B					
2492=PF	28	1713	9660	RUSS	VOA	KAV051	9836	614	34	30.41N	111.39E	LV 317B	DS 322B	AN 293B				
2493=PF	25	2242	9670	RUSS	VOA	KAV051	0	0	0	31.74N	110.73E	AN 294B	DS 325B					
2494=PF	23	1927	9770	RUSS	BBC	CYPRUS	5425	373	45	47.68N	131.24E	LV 317B	AN 290B	DS 325B				
2495=PF	24	1719	9770	RUSS	BBC	CYPRUS	4937	229	55	56.69N	141.70E	LV 320B	DS 329B	FE 314B	AN 295B			
2496=PF	27	0144	9770	RUSS	VOA	TAN044	0	0	0	35.24S	73.66E	AN 293B	FE 313B					
2497=PF	15	0044	11725	RUSS	RL	G4	0	0	0	63.02N	170.88E	AN 293D	LV 325D					
2498=PF	15	1950	11845	RUSS	BBC	CYPRUS	1822	458	63	58.29N	149.46E	FE 315D	DS 333D	WP 327D	LV 325D	AN 291D		
2499=PF	13	0350	11925	RUSS	VOA	KAV095	3025	819	49	49.38N	126.33E	FE 315D	WP 315D	DS 329D	LV 325D	AN 295D		
2500=PF	12	0226	11925	RUSS	VOA	KAV095	0	0	0	62.10N	154.67W	AN 295D	LV 331D					
2501=PF	9	0834	11930	RUSS	VOA	PHT349	29015	25	35	27.42S	82.13E	AN 285D	FE 313D	KI 314D				
2502=PF	11	0842	11930	RUSS	VOA	PHT349	10732	1588	37	19.64S	85.39E	AN 289D	FE 315D	LV 300D				
2503=PF	18	0607	15130	RUSS	RL	P2	752	196	62	57.86N	147.88E	AN 292B	FE 315B	WP 327B	LV 324B			
2504=PF	21	0745	15130	RUSS	RL	P2	0	0	0	61.42N	164.17W	FE 314B	LV 326B					
2505=PF	18	0912	15130	RUSS	RL	P2	832	243	59	55.45N	142.74E	LV 318B	DS 325B	WP 324B	AN 292B			
2506=PF	18	0745	15130	RUSS	RL	P2	764	208	63	58.47N	147.80E	AN 293B	WP 328B	LV 323B				
2507=PF	16	1235	15235	RUSS	VOA	WOF045	1702	477	63	58.81N	152.13E	PS 337D	AN 291D	WP 330D				
2508=PF	19	0735	15290	RUSS	RL	P1	1019	418	87	58.76N	149.60E	DS 330B	WP 329B	LV 320B				
2509=PF	17	0646	15290	RUSS	RL	P1	0	0	0	60.09N	159.57E	LV 322B	AN 290B					
2510=PF	16	1844	15290	RUSS	RL	P1	925	72	104	60.66N	145.22W	GI 23D	WP 329D	AN 296D				
2511=PF	18	0614	15290	RUSS	RL	P1	0	0	0	60.83N	158.84E	LV 323B	AN 292B					
2512=PF	17	0905	15325	RUSS	VOA	PHT021	1372	439	49	44.01N	123.03E	AN 291B	WP 309B	LV 325B				
2513=PF	16	2340	15340	RUSS	RL	G15	1876	477	63	58.51N	148.46E	FE 315D	WP 328D	LV 324D	AN 293D			
2514=PF	19	2135	15340	RUSS	RL	G15	830	346	79	59.50N	151.55E	FE 316B	F1 38B	WP 330B	LV 324B			
2515=PF	21	2030	15340	RUSS	RL	L1	0	0	0	59.64N	149.98E	AN 294B	WP 330B					
2516=PF	20	2156	15355	RUSS	RL	G7	0	0	0	62.24N	125.31E	WP 330B	AN 310B					
2517=PF	21	0010	15355	RUSS	RL	G1	0	0	0	59.40N	151.06E	AN 293B	WP 330B					
2518=PF	19	0051	15355	RUSS	RL	G1	0	0	0	61.97N	162.67E	AN 293B	LV 324B					
2519=PF	20	0105	15370	RUSS	RL	P6	0	0	0	59.16N	152.11E	AN 292B	WP 330B					
2520=PF	16	2340	15380	RUSS	RL	G9+G10	1835	456	64	59.04N	149.81E	WP 329D	LV 324D	FE 316D	AN 293D			
2521=PF	19	0916	15445	RUSS	RL	G1	848	334	75	58.20N	149.14E	LV 321B	FE 315B	DS 330B	WP 328B			



2522=PF	19	0630	15445	RUSS	RL	G1	3553	478	58	55.69N	145.23E	DS 327B	GI 327B	LV 319B	
2523=PF	29	0905	17740	RUSS	VOA	PHT349	0	0	0	59.17N	148.06E	WP 329B	LV 323B		
2524=PF	28	1910	9575	UKR	VOA	PHT021	0	0	0	35.74N	118.91E	DS 322B	AN 290B		
2525=PF	18	1945	15380	UKR	RL	P3	0	0	0	0.00N	0.00E	an 294B	gi 33B	wp 329B	
2526=PF	16	1948	15380	UKR	RL	P3	0	0	0	58.24N	152.35E	FE 315D	WP 329D		
2527=PK	18	1716	15340	AZ	RL	L1	0	0	0	4.72S	119.64E	NE 73B	N2 79B		
2528=PK	16	2120	7245	CZEC	RFE	B1	0	0	0	0.00N	0.00E	ne 88B	u2 55C	u2 55C	
2529=PK	12	0436	11855	CZEC	RFE	G9+G10	1398	666	111	58.44N	71.22E	AN 326D	GI 31D	IT 56D	
2530=PK	11	0835	11865	CZEC	RFE	G4B	0	0	0	52.59N	77.36E	AN 329D	WP 330D		
2531=PK	10	1935	11915	POLI	VOA	TAN044	0	0	0	54.14N	31.56E	KR 70C	IT 80C		
2532=PK	18	0619	15145	POLI	RFE	G2	0	0	0	46.98N	72.27E	WP 328B	AN 330B		
2533=PK	16	1110	15145	POLI	RFE	G2	0	0	0	54.51N	23.36E	BL 68B	NE 71B		
2534=PK	25	1300	17805	POLI	RFE	G1B	0	0	0	56.50N	54.17E	AN 345B	U2 60C		
2535=PK	17	2018	7270	RUSS	VOA	MUN035	327	57	128	50.94S	178.16E	NE 74B	U2 51B	NE 59B	NO 63B
2536=PK	16	1916	7270	RUSS	VOA	MUN035	0	0	0	53.78N	67.66E	IT 66C	KO 58B		
2537=PK	26	1626	9565	RUSS	RL	L5	0	0	0	11.96N	55.76E	WP 312B	AN 334B		
2538=PK	9	1801	11710	RUSS	VOA	WOF066	0	0	0	58.57N	21.36E	U2 53B	NO 85B		
2539=PK	11	1518	11710	RUSS	VOA	WOF066	277	52	89	59.04N	26.44E	NO 80B	WP 332D	U2 54B	
2540=PK	17	0316	15370	RUSS	RL	P6	3689	389	124	52.36N	82.13E	NE 60C	U2 54B	AL 7D	
2541=PK	17	0216	15370	RUSS	RL	P6	1564	423	122	52.69N	80.67E	NE 58B	AL 5D	AN 328D	
2542=PL	17	1253	15135	????	????????????		152	25	101	50.20N	32.67E	KO 72A	BL 94A	IT 89C	
2543=PL	21	1020	15325	????	????????????		0	0	0	50.65N	37.72E	NO 100B	N2 140B		
2544=PL	24	2210	9009	HEBR	IBA		748	69	155	51.98N	34.39E	N1 132B	N2 144B	AN 359B	
2545=PL	28	2301	9680	RUSS	RL	L2	0	0	0	52.81N	12.73E	U2 79B	NE 80B		
2546=PL	14	1845	11935	RUSS	RL	B4	499	39	157	54.71N	36.66E	BE 41D	PS 30D	AL 31D	N2 137A N3 155B
2547=PL	13	0223	11935	RUSS	RL	P5	0	0	0	53.74N	39.19E	GI 24D	FE 11D		
2548=PL	20	1910	15290	RUSS	RL	P1	3288	480	125	58.74N	20.07E	GI 29B	FL 32B	AL 35B	
2549=PL	19	2016	15355	RUSS	RL	G7	117	46	146	50.71N	36.84E	NE 76B	N2 141B	U2 82C	NO 112B DS 20B BE 43B
												FL 38B	LR 37B	LV 20B	N2 139A
2550=PL	18	1704	15355	RUSS	RL	G7	1190	600	143	43.44N	38.31E	AN 357B	FL 32B	SS 55B	AL 33B
2551=PL	21	2132	15355	RUSS	RL	G7	0	0	0	0.00N	0.00E	n2 140B	ne 80B	u2 87B	
2552=PL	17	1325	15380	RUSS	RL	P3+P4	0	0	0	82.54N	77.27W	GI 4B	FE 9B		
2553=PL	16	1845	15425	RUSS	IBA		2816	1465	165	56.68N	43.17E	fe 299D	GI 11D	SS 39D	AN 355D
2554=PL	26	0621	17725	RUSS	RL	G2B	0	0	0	71.25N	18.50E	FE 14B	AN 5B		
2555=PL	26	0635	17760	RUSS	RL	L4	0	0	0	49.35N	36.00E	FE 14B	NO 105B		
2556=PL	26	0614	17770	RUSS	RL	P6	0	0	0	55.68N	33.17E	FE 14B	AN 358B		
2557=PL	27	1317	17815	RUSS	IBA		3042	347	123	58.73N	21.68E	PS 33B	LR 37B	GI 28B	KI 28B a1 313B BE 39B
2558=PL	23	1250	17895	RUSS	RL	P5	0	0	0	43.71N	85.11W	AL 29B	KI 29B		
2559=PL	19	1531	21455	RUSS	RL	L3	0	0	0	49.92N	34.92E	BK 83B	NO 105A		
2560=PL	12	0305	11885	UKR	RL	P4	8013	1462	147	43.62N	48.56E	BE 42D	DS 17D	FL 34D	GI 22D
2561=PL	22	1548	15380	UKR	RL	P3	0	0	0	61.65N	33.54E	AN 358B	FE 12B		
2562=PM	19	0739	15290	RUSS	RL	P1	0	0	0	49.15N	46.83E	FE 7B	SS 37B		
2563=PM	24	0116	9715	UKR	VOA	TAN044	0	0	0	59.03N	31.68E	NE 55B	AN 359B		
2564=R3	20	0519	7305	????	????????????		0	0	0	42.96N	13.72E	NO 159A	N2 184A		
2565=R3	20	1942	15115	BULG	RFE	G3	0	0	0	41.55N	28.93E	BL 130B	KR 114C		
2566=R6	24	1645	17875	BULG	DW		143	23	124	43.54N	27.14E	AN 3B	BE 53B	FL 46B	LR 49B SS 48B KR 111A
												IT 128B	BL 128B	KO 103A	NE 106B
2567=R6	28	1650	17875	BULG	DW		257	33	127	43.24N	28.49E	BL 125B	it 130A	KR 111A	KO 100B
2568=R6	12	0449	11915	RUSS	RL	HC	2570	928	139	53.11N	26.46E	AL 21D	AN 359D	BE 53D	DS 26D LR 40D LV 26D
2569=R6	12	0331	11915	RUSS	RL	HC	5630	1371	135	46.13N	24.24E	BE 53D	FE 23D	KI 33D	
2570=R6	15	0310	11915	RUSS	RL	HC	3433	1017	141	45.81N	30.39E	BE 53D	FE 21D	AL 33D	KI 34D PS 41D GI 32D
												WP 353D			
2571=R6	24	0820	17725	RUSS	RL	G2B	0	0	0	59.07N	35.04E	FE 12B	AN 357B		
2572=R6	25	1146	17725	RUSS	RL	G2B	243	39	107	52.10N	17.55E	NE 95B	AN 2B	PS 42B	IT 97B
2573=R6	29	0941	17725	RUSS	RL	G2B	0	0	0	43.88N	32.16E	WP 352B	BE 50B		
2574=R9	17	1351	15340	ARM	RL	L1	0	0	0	49.40N	14.53E	GI 39B	PS 43B		
2575=R9	16	1931	15340	ARM	RL	L1	2260	88	86	52.60S	173.26E	U2 101B	U2 101B	KR 103A	NE 98B
2576=R9	16	1331	15340	ARM	RL	L1	79	18	106	48.28N	19.92E	U2 99A	U2 99A	KR 103B	IT 123C KO 81A
2577=R9	24	1902	17760	ARM	RL	L4	590	90	86	42.64N	32.31E	LR 42B	PS 42B	BE 51B	BE 51B DS 31B LS 70B
2578=R9	17	1406	15340	AZ	RL	L1	0	0	0	38.56S	102.37E	N2 109A	LR 46B		

2579=R9	18	1715	15340	AZ	RL	L1	0	0	0	43.32N	19.34E	AN	8B	GI	41B																							
2580=R9	26	1701	17760	AZ	RL	L4	116	23	124	49.59N	17.93E	U2	100B	KR	99B	IT	126A	BE	51B	AN	4B	DS	33B															
2581=R9	15	2047	11825	CZEC	RFE	G2A	3449	216	145	45.85N	24.85E	AN	2D	BE	50D	NO	130D																					
2582=R9	19	1905	15160	CZEC	DW		0	0	0	50.33N	19.71E	NE	96B	N2	173B																							
2583=R9	18	1904	15160	CZEC	DW		0	0	0	28.90N	36.52E	BL	135B	IT	131B																							
2584=R9	17	1820	15340	GEOR	RL	L1	1175	458	130	47.18N	20.39E	PS	43B	FL	44B	BE	52B	AN	7B																			
2585=R9	16	1700	15340	GEOR	RL	L1	1863	173	68	44.48N	24.20E	SS	42D	LS	58D	DS	32D	GI	40D																			
2586=R9	26	0526	9695	HUNG	RFE	G2A	0	0	0	51.27N	18.62E	NO	130B	N2	175B																							
2587=R9	12	1535	11905	RUSS	DW		297	64	115	42.83N	27.88E	U2	101D	BE	48D	LR	51D	CA	51D	PS	38D	LS	67D															
2588=R9	29	0931	17760	RUSS	RL	L4	0	0	0	52.24S	172.50E	KR	105D	KO	105B																							
2589=R9	28	1505	9660	UKR	VOA	MUN058	0	0	0	58.84N	16.84E	U2	96B	NE	95B																							
2590=R9	15	1605	11885	UKR	RL	L6	0	0	0	57.37N	7.41W	GI	40D	SS	33D																							
2591=RA	11	0457	11915	RUSS	RL	HC	0	0	0	56.66N	164.85E	FE	309D	LV	317D																							
2592=RB	11	0916	5955	????	???????????????		0	0	0	0.00N	0.00E	n0	110B	n3	117B	n3	155B	kr	67A																			
2593=RB	17	1210	7225	????	???????????????		98	23	78	54.74N	18.05E	IT	77A	BL	45C	KO	40C	kr	67A																			
2594=RB	17	1617	7275	????	???????????????		0	0	0	0.00N	0.00E	it	76A	ko	38A	kr	66A																					
2595=RB	23	2346	9500	????	???????????????		888	96	99	53.15N	46.24E	IT	78C	KO	66B	BL	70C																					
2596=RB	25	0816	9525	????	???????????????		0	0	0	58.10N	26.21E	IT	59C	KO	38B																							
2597=RB	9	1118	5965	BEL	EUR		307	43	172	54.76N	20.92E	n0	144B	N2	170B	N1	156B	N3	186B																			
2598=RB	20	1431	7245	EST	VOA	MUN058	134	32	82	56.59N	28.75E	BK	58A	NO	90B	U2	65C																					
2599=RB	21	0435	7155	LITH	RFE	HD	0	0	0	54.56N	21.12E	NE	70B	NO	110B																							
2600=RB	19	1401	7245	LITH	VOA	MUN058	32	15	70	54.40N	18.75E	U2	75C	NO	117A	NE	68B	KR	65B	IT	75B	BL	54A															
2601=RB	9	1001	5970	POLI	RFE	B6	38	25	87	54.64N	19.81E	U2	71B	NO	120B	N1	156B	N2	169B	BL	55B	IT	77B															
2602=RB	14	0950	5970	POLI	RFE	B6	70	21	81	54.94N	20.06E	KO	35C	KR	66B	NO	110B																					
2603=RB	9	1235	5970	POLI	RFE	B6	0	0	0	54.92N	19.56E	BL	55C	IT	76A																							
2604=RB	10	0731	5970	POLI	RFE	B6	223	35	71	54.59N	19.69E	U2	70B	n0	80C	BL	60B	KR	61C																			
2605=RB	14	1031	5970	POLI	RFE	B6	0	0	0	55.05N	21.33E	U2	68B	N2	168C																							
2606=RB	11	0901	5970	POLI	RFE	B6	74	22	84	54.85N	19.55E	U2	69B	NO	110B	KR	63C	KO	35C	IT	77A	BL	55C															
2607=RB	12	0946	5970	POLI	RFE	B6	92	23	76	54.95N	18.97E	n2	150B																									
2608=RB	12	0350	5970	POLI	RFE	B6	0	0	0	50.76N	29.63E	BL	58C	IT	75A	KO	35B																					
2609=RB	14	1231	5970	POLI	RFE	B6	71	23	81	54.85N	20.02E	NO	110B	N3	170C																							
2610=RB	11	1101	5970	POLI	RFE	B6	93	18	73	55.19N	20.04E	BL	55C	KR	65B	IT	77A	KO	35C	N2	170C	NO	108C															
2611=RB	12	1131	5970	POLI	RFE	B6	82	18	75	54.75N	19.15E	U2	69B	n0	80B	BL	55B	IT	70A	KO	36B	KR	63A															
2612=RB	9	0816	5970	POLI	RFE	B6	159	54	126	54.06N	34.30E	U2	73C	n0	75B	KO	38B	KR	66A	BL	52B	IT	73A															
2613=RB	12	0631	5970	POLI	RFE	B6	50	17	67	54.64N	17.88E	U2	70B	n2	165B	NO	95B	N1	128B																			
2614=RB	13	0801	5970	POLI	RFE	B6	113	27	64	53.64N	15.96E	U2	70B	n0	85B	KO	34A	IT	76A	KR	55B	BL	64B															
2615=RB	14	0701	5970	POLI	RFE	B6	66	19	68	54.85N	19.93E	U2	70B	n0	85B	KR	63B	KO	30C	BL	62C	it	60C															
2616=RB	10	1032	5970	POLI	RFE	B6	101	32	126	53.03N	26.30E	U2	70B	N2	167C	IT	77B	KR	66B	BL	56A	KO	35C															
2617=RB	14	1601	6125	POLI	BBC	WOOF	825	99	113	53.59N	46.78E	NO	108A	N2	158B	U2	75C	U2	75C																			
2618=RB	18	1031	7190	POLI	BBC	WOOF	110	43	99	54.55N	19.22E	U2	68B	U2	68B	NO	85B																					
2619=RB	19	0720	7190	POLI	RFE	B7	82	47	118	54.48N	25.43E	U2	70C	NE	69B	NO	114B																					
2620=RB	17	0931	7190	POLI	RFE	B7	0	0	0	54.62N	21.90E	NE	69B	NO	107B	N2	157B																					
2621=RB	19	1116	7190	POLI	RFE	B7	69	47	113	55.10N	21.40E	U2	70C	NE	70B																							
2622=RB	19	1003	7190	POLI	RFE	B7	0	0	0	55.39N	34.39E	NE	66B	N2	167B	NO	108B																					
2623=RB	19	1204	7190	POLI	RFE	B7	201	35	77	54.52N	19.48E	NO	90B	NE	68B																							
2624=RB	18	1646	7295	POLI	BBC	WOOF	0	0	0	54.15N	25.20E	BL	60C	IT	80B	KR	63B																					
2625=RB	17	1601	7295	POLI	BBC	WOOF	0	0	0	53.82N	39.04E	NE	73B	NO	105B																							
2626=RB	19	1631	7295	POLI	BBC	WOOF	256	23	71	53.02N	8.13E	U2	70B	NE	72B																							
2627=RB	19	0501	7155	RUSS	RL	HD	266	54	101	55.70N	33.14E	U2	75C	NE	66B	U2	75C																					
2628=RB	22	1931	7220	RUSS	RL	L2	0	0	0	54.27N	13.65E	NO	90B	U2	66C	NE	67B																					
2629=RB	17	1945	7220	RUSS	RL	L2	0	0	0	30.89N	92.02E	U2	69B	NE	65B																							
2630=RB	21	0931	7220	RUSS	RL	L2	320	59	105	55.09N	35.52E	IT	76B	BL	78C																							
2631=RB	21	1201	7220	RUSS	RL	L2	321	58	106	54.32N	35.92E	U2	67C	NE	69B	NO	90B																					
2632=RB	22	1005	7220	RUSS	RL	L2	0	0	0	49.05S	172.04E	NO	92B	U2	70B	NE	71B																					
												NE	74B	IT	73A																							

2633=RB	22	0831	7220	RUSS	RL	L2	0	0	0	0.00N	0.00E	it	73A	u2	70B	ne	74B						
2634=RB	19	1701	7270	RUSS	VOA	MUN035	84	27	125	54.73N	20.62E	U2	70C	N0	110B	N0	110A	N2	170B				
2635=RB	18	1846	7270	RUSS	VOA	MUN035	86	62	116	56.53N	31.10E	U2	63C	N2	145B	NE	64B						
2636=RB	16	0332	7285	RUSS	DW		40	33	144	55.04N	20.56E	N1	157A	NE	71B	U2	66B	U2	66B				
2637=RB	19	0301	7285	RUSS	DW		175	40	99	54.67N	27.19E	U2	68B	NE	72B	N0	100B	IT	80C				
2638=RB	23	0905	9520	RUSS	RL	HB	0	0	0	54.25N	51.87E	NE	67B	N0	80B								
2639=RB	24	1031	9520	RUSS	RL	HB	0	0	0	54.07N	13.09E	U2	70C	NE	66B								
2640=RB	26	0901	9520	RUSS	RL	HB	105	51	116	56.05N	36.66E	U2	67B	KR	63B	N2	135B	N0	85B	AL	39B		
2641=RB	27	1131	9520	RUSS	RL	HB	0	0	0	55.20N	38.65E	N0	85B	NE	66B								
2642=RB	19	1950	7225	TUN	????		0	0	0	54.14N	25.23E	N0	105B	N2	160C								
2643=RB	18	1646	7245	UKR	VOA	MUN082	0	0	0	52.27N	29.99E	NE	80C	N0	105B								
2644=RB	18	1546	7270	UKR	VOA	KAV026	4423	313	136	34.71N	72.87E	U2	77B	NE	84B	N0	88B						
2645=RB	18	1646	7270	UKR	VOA	KAV026	0	0	0	49.22N	32.48E	NE	89B	N2	150B								
2646=RD	15	1307	6105	RUSS	RL	L9	0	0	0	50.25N	139.45E	WP	317D	AN	287D								
2647=RD	14	0910	11965	RUSS	VOA	PHT021	0	0	0	60.54N	48.41E	KR	52B	N3	125B								
2648=RD	10	0801	11965	RUSS	VOA	PHT021	14296	693	149	12.96N	134.34E	U2	46B	KR	49C	BL	60B	KO	53B				
2649=RQ	26	0916	9500	????	?????????????		0	0	0	60.54N	33.26E	BL	46B	IT	53A								
2650=RQ	29	0616	17715	????	?????????????		0	0	0	59.09N	33.34E	N0	77B	N1	117B								
2651=RQ	19	2239	7110	ARAB	????	IRQ	0	0	0	42.53N	41.90E	N0	110C	N2	140C								
2652=RQ	22	1745	15485	HEBR	IBA		0	0	0	59.78N	30.44E	N1	120A	N0	75A								
2653=RQ	14	0101	6160	RUSS	VOA	WOF066	0	0	0	58.91N	39.72E	U2	57B	N0	75C								
2654=RQ	17	2131	7105	RUSS	VOA	KAV051	416	29	126	51.38E	178.78E	U2	54B	NE	80B	U2	54B						
2655=RQ	16	0603	7220	RUSS	RL	HC	70	49	102	59.23N	31.19E	N3	163B	N0	76B	U2	56B	U2	56B				
2656=RQ	22	0740	7220	RUSS	RL	HC	0	0	0	51.19N	40.52E	BE	40B	SE	37B								
2657=RQ	19	1646	7220	RUSS	RL	L2	0	0	0	39.67N	77.86E	NE	74B	N0	80B								
2658=RQ	19	0201	7240	RUSS	VOA	MUN058	95412	790	147	12.95N	117.94E	U2	60B	U2	60B	NE	64C						
2659=RQ	16	0348	7240	RUSS	VOA	MUN058	0	0	0	59.41N	30.15E	N1	122A	N3	165A								
2660=RQ	21	0131	7240	RUSS	VOA	MUN058	0	0	0	0.00N	0.00E	u2	53B	n2	135B	ne	68B						
2661=RQ	22	0301	7240	RUSS	VOA	MUN058	95	31	68	60.67N	30.72E	U2	56B	N2	135C	ne	68C	IT	50A	kr	65C	KO	35B
2662=RQ	16	0231	7240	RUSS	VOA	MUN058	67	49	95	59.86N	30.34E	U2	56B	U2	56B	ne	69B	N3	165B	N0	70B		
2663=RQ	25	0446	9680	RUSS	RL	L2	0	0	0	0.00N	0.00E	ne	69B	n0	74A	n3	165B						
2664=RQ	13	0152	11760	RUSS	VOA	TAN044	0	0	0	55.91N	36.91E	AL	30D	DS	18D								
2665=RQ	12	1639	11845	RUSS	BBC	CYPRUS	0	0	0	34.29N	56.92E	BE	42D	FL	36D								
2666=RQ	9	1605	11845	RUSS	BBC	CYPRUS	7036	1516	124	47.70N	31.35E	AL	41D	FL	32D	SS	46D						
2667=RQ	17	1315	15425	RUSS	IBA		419	38	71	59.23N	31.28E	KR	51A	KO	42C	FL	31B	PS	31B	AL	32B		
2668=RQ	26	1450	17780	RUSS	VOA	WOF070	0	0	0	49.48E	175.21E	NE	70B	U2	53B								
2669=RQ	19	1531	21455	RUSS	RL	L3	0	0	0	55.75N	14.14E	U2	60B	NE	53B								
2670=RQ	24	1519	9660	UKR	VOA	MUN058	0	0	0	60.21N	30.57E	N0	73A	N1	118B								
2671=RQ	27	0535	9660	UKR	RL	L3	0	0	0	53.22N	54.85E	NE	68B	N0	80C								
2672=RQ	11	1305	11705	UZBE	VOA	KAV051	2020	1002	155	58.32N	30.65E	BE	37D	AN	360D	AL	32D	AN	359D				
2673=RS	9	0939	11875	RUSS	RL	B4	16580	1238	137	39.23N	41.03E	AL	36D	BE	46D	FL	40D	LR	48D	PS	42D		
2674=RS	9	0848	11875	RUSS	RL	B4	0	0	0	33.16N	51.95E	BE	46D	FL	40D								
2675=RT	13	1416	11870	????	?????????????		0	0	0	56.70N	30.97E	N2	145B	N3	165B								
2676=RT	22	1851	15395	????	?????????????		0	0	0	47.16N	30.32E	N1	145C	N2	155C								
2677=RT	16	1140	21515	????	?????????????		0	0	0	57.80N	33.07E	IT	64A	KR	57B								
2678=RT	11	2150	11970	BR	RL	P2	2191	954	135	60.64N	21.41E	AL	31D	AN	6D	BE	40D	DS	18D				
2679=RT	25	1510	9585	LAT	VOA	WOF058	0	0	0	56.17N	19.27E	U2	62A	NE	59B								
2680=RT	23	1521	9735	LAT	VOA	WOF066	0	0	0	0.00N	0.00E	n0	95B	n1	134B	n2	161B						
2681=RT	25	1333	9735	LAT	VOA	MUN035	20	17	96	56.90N	24.01E	N0	93A	N1	142A	NE	61B	N2	162A	U2	60B	N3	181A
												BL	50B	IT	63A	KR	57A	PS	33B	AL	36B	BE	45B
2682=RT	10	1501	11865	LAT	VOA	WOF058	70	25	160	56.63N	26.47E	N0	90B	N2	155A	U2	67C	N2	155A				
2683=RT	11	1910	11970	LITH	RFE	P2	7300	1872	156	41.13N	67.29E	AL	22D	G1	9D	SS	34D						
2684=RT	21	0325	7130	RUSS	DW		252	39	57	55.33N	19.57E	BL	50B	IT	62D	KO	38C	KR	67D				
2685=RT	19	1718	7255	RUSS	DW		0	0	0	45.16N	58.18E	N0	90B	NE	80X								
2686=RT	13	0310	11760	RUSS	VOA	TAN044	3405	1038	136	56.80N	26.94E	BE	41D	DS	20D	FE	15D	FL	32D	LV	21D		
2687=RT	12	1101	11805	RUSS	VOA	WOF075	120	63	140	56.55N	35.81E	N0	85B	FL	29D	AL	32D	AN	1D	N3	155B		
2688=RT	14	0654	11875	RUSS	RL	G5	0	0	0	56.83N	25.47E	N3	177B	N2	157B								
2689=RT	10	0802	11965	RUSS	VOA	PHT021	0	0	0	59.12N	24.92E	N3	178B	N0	80C								
2690=RT	21	0001	15355	RUSS	RL	G1	0	0	0	0.00N	0.00E	u2	63B	ne	89B								
2691=RT	26	1548	17770	RUSS	RL	P4	0	0	0	62.04N	3.18E	DS	27B	AL	36B								

2692=RT	16	1510	21455	RUSS	RL	L3				0	0	0	47.88S	174.28E	IT	64A	NE	62B																						
2693=RV	20	1555	15115	BULG	RFE	G3	1730	592	117	44.36N	14.49E				PS	43B	LV	33B	SS	51B																				
2694=S5	11	1031	6020	CZEC	DW		35	22	156	49.95N	12.86E				U2	100B	b1	149C	IT	151A	KO	45B																		
2695=S5	20	0631	7165	CZEC	RFE	B9B	549	20	81	52.09S	179.32E				BK	101A	U2	101B	NE	96B																				
2696=S5	17	0701	7165	CZEC	RFE	B9B	0	0	0	52.32S	177.17E				U2	101A	NE	94B																						
2697=S5	19	0701	7165	CZEC	RFE	B9B	0	0	0	23.98N	66.34E				BK	98A	NE	97B																						
2698=S5	16	0435	7285	CZEC	DW		0	0	0	35.57N	22.02E				NO	148A	NI	165C																						
2699=S5	27	0431	9650	CZEC	DW		8016	201	124	43.27N	31.71E				U2	100C	PS	41B	ss	35B	FL	42B																		
2700=S5	16	0548	15170	CZEC	RFE	G8	0	0	0	53.15N	48.29W				BE	50D	PS	42D																						
2701=S7	9	1532	6105	RUSS	RL	L9	46	22	78	53.11N	14.57E				KO	26B	IT	108C	KR	69A	NO	130B																		
2702=S7	9	1231	6105	RUSS	RL	L9	0	0	0	53.14N	16.03E				U2	77B	NO	130B																						
2703=SF	15	0146	11735	????	????????????		0	0	0	20.27S	145.88E				IT	62A	BL	67B																						
2704=SF	20	0622	15125	????	????????????	1123	125	98	51.86N	36.59E					KO	68D	BL	80D	KR	80D																				
2705=SF	23	0210	9505	BR	RL	G1B	1725	84	94	57.59N	49.36E				KR	55C	IT	63B																						
2706=SF	27	0216	9505	BR	RL	G1B	716	47	90	58.07N	43.18E				KO	57C	BL	70C	IT	62A																				
2707=SF	24	1546	9505	LITH	RFE	HB	0	0	0	23.47N	104.72E				NE	68B	NO	70A																						
2708=SF	25	0249	9505	LITH	RFE	G1B	0	0	0	59.17N	42.57E				NO	73A	NI	103B																						
2709=SF	25	1516	9505	LITH	RFE	HB	0	0	0	56.65N	55.80E				KR	60A	IT	65B																						
2710=SF	24	2236	9555	RUSS	RL	HC	0	0	0	49.52N	64.28E				N3	118B	NE	70B																						
2711=SF	26	2247	9555	RUSS	RL	HC	6717	331	124	48.52N	85.09E				KO	59C	BL	68C	IT	63B																				
2712=SF	27	0020	9555	RUSS	RL	G3B	0	0	0	46.99N	86.89E				KO	60C	IT	65C																						
2713=SF	14	0146	11725	RUSS	RL	G4	0	0	0	38.89S	163.66E				IT	60A	BL	68A																						
2714=SF	15	0234	11725	RUSS	RL	G4	0	0	0	55.38N	61.43E				N3	115B	NO	72B																						
2715=SF	15	0053	11725	RUSS	RL	G4	0	0	0	57.34N	62.32E				NO	68B	N3	111B																						
2716=SF	9	0236	11725	RUSS	RL	G4	0	0	0	51.93N	58.13E				NO	80C	N2	110B																						
2717=SF	9	1746	11905	RUSS	DW		1080	112	110	55.81N	62.99E				KR	60A	KO	52D	NO	70B																				
2718=SF	18	0731	15130	RUSS	RL	P2	402	51	92	57.39N	43.74E				NO	76C	U2	62C	NE	62B	KO	51B	KR	60A																
2719=SF	18	0846	15130	RUSS	RL	P2	0	0	0	57.52N	45.19E				NE	61B	KO	52B																						
2720=SF	21	0646	15130	RUSS	RL	P2	173	43	91	56.00N	33.97E				NO	85B	KO	54C	BL	65B	IT	82C	KR	60C																
2721=SF	21	0505	15130	RUSS	RL	P2	1080	72	95	56.90N	50.13E				ne	70B	KO	55B	IT	68C	KR	60A																		
2722=SF	21	0646	15290	RUSS	RL	P1	1788	49	95	56.87N	50.21E				KR	60A	IT	67C	BL	64A																				
2723=SF	28	0117	9750	TB	RL	P4	3048	87	99	56.35N	53.74E				BL	65C	KR	61A	KO	55D																				
2724=SF	21	1947	7295	UKR	VOA	PHT021	663	58	91	55.90N	40.80E				IT	68B	BL	70B	KO	54C																				
2725=SF	11	0446	11885	UKR	RL	P4	0	0	0	0.00N	0.00E				u2	65C	n0	68A	nl	110B																				
2726=SF	10	0520	11885	UKR	RL	P4	0	0	0	58.46N	53.56E				N3	121B	NO	70B																						
2727=SG	13	2127	11970	BR	RL	P2	2775	759	51	50.85N	130.03E				LV	322D	AN	295D	DS	327D	FE	314D	WP	317D																
2728=SG	11	2151	11970	BR	RL	P2	0	0	0	49.68N	129.88E				AN	293D	WP	316D																						
2729=SM	29	1846	9670	????	????????????		0	0	0	49.63N	48.46E				U2	75C	N2	125C																						
2730=SM	15	0246	11745	????	????????????		0	0	0	39.29S	142.08E				IT	85A	BL	90A																						
2731=SM	10	0328	11765	????	????????????		0	0	0	0.00N	0.00E				it	66B	b1	90B	kr	65B																				
2732=SM	14	1916	11765	????	????????????		0	0	0	45.66S	153.58E				IT	85B	BL	91B																						
2733=SM	28	1401	9565	ARM	VOA	KAV095	327	84	130	51.21N	43.20E				NO	90B	U2	78B	N1	120B																				
2734=SM	27	1416	9670	ARM	VOA	RHO060	0	0	0	52.63N	9.49E				NE	80B	U2	80B																						
2735=SM	22	1731	15485	HEBR	IBA		0	0	0	49.81N	40.12E				U2	79A	N2	137B																						
2736=SM	25	1805	9585	RUSS	VOA	MUN058	0	0	0	52.14N	23.95E				NE	83B	U2	80C																						
2737=SM	25	0135	9635	RUSS	VOA	WOF066	301	42	104	50.73N	35.29E				NE	85B	KO	70B	BL	90B	IT	88B																		
2738=SM	24	0301	9690	RUSS	DW		823	65	104	51.38N	32.01E				U2	81B	NE	81B	FL	36B	AN	356B																		
2739=SM	12	2050	11750	RUSS	DW		0	0	0	1.94N	101.83E				IT	87B	BL	90A																						
2740=SM	21	1715	15225	RUSS	BBC	WOOF	0	0	0	47.40N	48.06E				KR	82A	KO	76B																						
2741=SM	22	1631	15245	RUSS	BBC	WOOF	617	84	111	49.97N	41.16E				U2	78A	AN	352B	BE	47B	FE	7B	PS	33B	AL	30B														
2742=SM	19	0540	15290	RUSS	RL	P1	1676	266	91	66.78N	8.89W				BE	36B	GI	30B	PS	22B																				
2743=SM	16	0426	15340	RUSS	RL	L1	0	0	0	50.47N	38.69E				KR	80C	IT	89A																						
2744=SM	17	2116	15340	RUSS	RL	G15	0	0	0	39.64N	57.75E				NE	88B																								





2866=	TU	11	0116	6090	RUSS	VOA	MUN058	210	63	100	56.42N	33.42E	U2	65C	KO	50C	NO	87B			
2867=	TU	11	0726	6105	RUSS	RL	L9	318	49	72	54.72N	26.13E	KO	50B	BL	70C	KR	66C			
2868=	TU	9	1236	6105	RUSS	RL	L9	0	0	0	24.44N	48.47E	NO	120B	N3	150B					
2869=	TU	9	0901	6105	RUSS	RL	L9	0	0	0	57.78N	36.27E	U2	60C	KO	48B					
2870=	TU	9	1916	6105	RUSS	RL	L9	0	0	0	56.35N	36.76E	IT	70B	NO	85B					
2871=	TU	10	0131	6170	RUSS	RL	B2	524	73	104	56.05N	42.46E	U2	65D	NO	82B	IT	70B			
2872=	TU	14	2050	6195	RUSS	DW		273	37	82	55.75N	31.45E	KO	51B	BL	68B	IT	68B	KR	67B	
2873=	TU	12	2101	6195	RUSS	DW		0	0	0	56.07N	32.66E	U2	65B	KO	51A					
2874=	TU	18	1801	7130	RUSS	VOA	KAV026	0	0	0	55.84N	23.03E	U2	65B	NE	64B					
2875=	TU	20	0307	7130	RUSS	DW		592	65	95	54.65N	42.71E	KR	65C	KO	60B	BL	70C	IT	75B	
2876=	TU	16	1701	7130	RUSS	VOA	KAV026	642	76	103	55.08N	41.95E	U2	66B	U2	66B	NE	68B	NO	85C	
2877=	TU	16	0316	7130	RUSS	DW		294	38	83	55.84N	32.65E	BL	68B	IT	70B	KO	51B	KR	65B	
2878=	TU	17	0331	7130	RUSS	DW		115	26	98	56.59N	35.27E	BK	60A	NO	85B	U2	66B	NE	66B	SS 36D NO 85A
2879=	TU	21	0310	7130	RUSS	DW		183	25	82	55.45N	32.84E	IT	70B	BL	70B	KO	53A	KR	66A	
2880=	TU	16	0116	7165	RUSS	RL	HC	0	0	0	0.00N	0.00E	ne	78B	n0	84A	n1	115A			
2881=	TU	16	0016	7165	RUSS	RL	HC	0	0	0	40.21N	70.91E	NE	78B	NO	85A					
2882=	TU	17	2301	7165	RUSS	RL	B1	14976	382	130	42.30S	159.17E	U2	64B	NE	70B	NE	71B			
2883=	TU	20	0055	7165	RUSS	RL	HC	0	0	0	56.30N	36.99E	NO	85B	N2	134C					
2884=	TU	18	2321	7190	RUSS	RL	B7	0	0	0	55.39N	34.39E	NO	90B	NE	68B					
2885=	TU	19	2356	7190	RUSS	RL	B7	0	0	0	56.30N	36.99E	NO	85A	N2	134B					
2886=	TU	19	1716	7255	RUSS	DW		0	0	0	32.20N	79.23E	NO	85A	NE	80X					
2887=	TU	19	1501	7255	RUSS	DW		344	46	111	54.66N	43.34E	U2	67A	NE	68B	NO	85A			
2888=	TU	18	1631	7255	RUSS	DW		0	0	0	8.42N	84.72E	NO	95B	NE	93B					
2889=	TU	18	1531	7255	RUSS	DW		0	0	0	43.54S	138.55E	NO	83B	NE	93B					
2890=	TU	17	1508	7255	RUSS	DW		0	0	0	0.00N	0.00E	it	67B	b1	100C	kr	66C			
2891=	TU	20	2246	7265	RUSS	VOA	KAV026	1369	139	117	52.25N	57.38E	NO	80B	U2	66B	NE	69B			
2892=	TU	16	2046	7270	RUSS	VOA	MUN035	542	38	69	55.01N	13.56E	U2	64C	U2	64C	IT	63C	ne	68B	
2893=	TU	21	1849	7270	RUSS	VOA	MUN035	2511	376	128	41.92S	173.34E	KO	60B	IT	58C	BL	68C			
2894=	TU	22	2101	7270	RUSS	VOA	MUN035	2442	52	92	55.28N	33.49E	U2	67B	NE	68B	NE	69B			
2895=	TU	17	2018	7270	RUSS	VOA	MUN035	0	0	0	0.00N	0.00E	ne	74B	u2	65B	ne	59B			
2896=	TU	18	2016	7270	RUSS	VOA	MUN035	0	0	0	56.37N	29.06E	U2	64C	NE	64B					
2897=	TU	20	2021	7270	RUSS	VOA	MUN035	0	0	0	0.00N	0.00E	ne	69B	n0	85B	ne	58B			
2898=	TU	16	2116	7270	RUSS	VOA	MUN035	0	0	0	50.21S	178.04E	NE	68B	IT	67A					
2899=	TU	21	0101	7270	RUSS	VOA	KAV026	0	0	0	56.08N	40.85E	U2	64B	NO	83A					
2900=	TU	19	0118	7270	RUSS	VOA	KAV026	214	52	92	55.33N	25.11E	NO	100C	NE	68B	U2	66C			
2901=	TU	19	1931	7270	RUSS	VOA	MUN035	519	76	107	54.97N	42.33E	NO	85B	U2	65B	NE	69B			
2902=	TU	19	0220	7270	RUSS	VOA	KAV026	205	46	90	55.51N	24.50E	NE	68B	U2	65B	NO	100C			
2903=	TU	20	2020	7295	RUSS	RL	L2	0	0	0	53.72N	46.40E	NO	85B	NE	70B					
2904=	TU	16	2048	7295	RUSS	RL	L2	0	0	0	50.85S	179.95W	IT	66C	NE	68B					
2905=	TU	23	2031	9435	RUSS	IBA		1008	31	92	55.79N	33.06E	U2	67B	IT	72A	NE	68B	BE	37B	SS 39B
2906=	TU	26	2316	9505	RUSS	RL	G1B	0	0	0	52.38S	176.62W	NE	98B	IT	70C					
2907=	TU	27	0002	9505	RUSS	RL	G1B	0	0	0	55.23N	38.68E	NO	87A	NE	68B					
2908=	TU	29	2331	9505	RUSS	RL	G1B	0	0	0	55.41N	32.65E	U2	67B	NE	68B					
2909=	TU	24	1031	9520	RUSS	RL	HB	344	59	102	55.94N	37.14E	U2	65B	NO	86B	NE	66B			
2910=	TU	24	0505	9520	RUSS	RL	HB	0	0	0	10.03N	115.13E	NE	68B	U2	64B					
2911=	TU	24	1916	9520	RUSS	RL	L3	0	0	0	54.40N	44.24E	NE	69B	NO	85C					
2912=	TU	23	0903	9520	RUSS	RL	HB	0	0	0	55.57N	38.67E	NO	86B	NE	67B					
2913=	TU	25	0419	9520	RUSS	RL	B7	0	0	0	54.01N	44.18E	NE	70B	NO	86B					
2914=	TU	26	0446	9520	RUSS	RL	B7	675	58	84	54.57N	20.67E	IT	86D	NE	69B	SS	40B	AL	31B	GI 30B
2915=	TU	26	0901	9520	RUSS	RL	HB	1262	122	116	52.40N	56.70E	NO	80B	U2	67B	NE	68B			
2916=	TU	23	1401	9520	RUSS	RL	B4	343	44	110	55.52N	40.27E	NO	85A	U2	64B	NE	68B			
2917=	TU	26	2316	9520	RUSS	RL	B8	0	0	0	54.93N	46.95E	NE	67B	IT	72C					
2918=	TU	27	0201	9520	RUSS	RL	B7	282	42	88	54.75N	33.08E	U2	65B	NE	69B	IT	82C	KO	57B	BL 72C
2919=	TU	27	1001	9520	RUSS	RL	HB	0	0	0	49.43S	172.21E	U2	66B	NE	76B					
2920=	TU	27	1133	9520	RUSS	RL	HB	0	0	0	55.91N	30.22E	IT	72A	NE	66B					
2921=	TU	27	1231	9520	RUSS	RL	HB	5900	108	104	54.35N	48.11E	U2	66B	NE	68B	U2	66B			
2922=	TU	27	1331	9520	RUSS	RL	HB	254	32	96	55.79N	35.24E	NO	88B	NE	68B	IT	72A			
2923=	TU	28	1101	9520	RUSS	RL	HB	129	48	103	55.47N	18.56E	NO	110B	U2	65B	SS	40B			
2924=	TU	28	1931	9520	RUSS	RL	L3	0	0	0	26.58S	140.41E	U2	65B	NE	70B					
2925=	TU	29	1201	9520	RUSS	RL	HB	0	0	0	7.02N	122.08E	BK	66B	NE	64B					

2926=	TU	29	1303	9520	RUSS	RL	HB	245	45	99	55	68N	33	22E	NO	90B	NE	68B	IT	72B																			
2927=	TU	23	0401	9520	RUSS	RL	B7	663	26	78	55	80N	20	18E	U2	66B	BE	37B	FL	35B	SS	40B	IT	68A															
2928=	TU	23	2346	9555	RUSS	RL	HC	0	0	0	54	20N	45	92E	NE	69B	U2	67C																					
2929=	TU	24	2231	9555	RUSS	RL	HC	537	29	80	54	79N	17	25E	U2	67A	AL	41B	SS	39B	NE	70B																	
2930=	TU	26	2319	9555	RUSS	RL	HC	0	0	0	54	77N	40	35E	NO	87B	NE	69B																					
2931=	TU	25	0346	9565	RUSS	VOA	WOF058	0	0	0	40	41S	156	60E	IT	72C	NE	70B																					
2932=	TU	27	0217	9565	RUSS	VOA	WOF058	0	0	0	55	31N	27	26E	IT	75C	NE	68B																					
2933=	TU	24	0349	9565	RUSS	VOA	WOF058	0	0	0	47	11S	170	10E	IT	69B	NE	68B																					
2934=	TU	24	2117	9585	RUSS	VOA	MUN058	470	69	101	54	91N	38	72E	NE	69B	FL	37B	SS	39B	NO	87C	NE	69B															
2935=	TU	25	1720	9585	RUSS	VOA	WOF090	0	0	0	26	57S	140	41E	NE	70B	U2	65C																					
2936=	TU	25	1801	9585	RUSS	VOA	MUN058	0	0	0	0	00N	0	00E	n0	80C	ne	83B	1r	32B																			
2937=	TU	25	2147	9585	RUSS	VOA	MUN058	149	44	120	55	17N	40	77E	NO	85A	NE	70B	N2	130B																			
2938=	TU	28	1732	9585	RUSS	VOA	WOF090	391	97	129	50	77N	48	12E	NO	87B	NE	78B	N1	114B																			
2939=	TU	27	0018	9595	RUSS	RL	G3A	0	0	0	54	40N	44	24E	NE	69B	NO	85B																					
2940=	TU	25	2102	9605	RUSS	DW		132	20	95	55	11N	42	64E	KR	64A	BL	70A	IT	70D	KO	59A	NO	85A	KO	59A													
															IT	70D	BL	70A	KR	64A	SS	39B	NE	70B	U2	66B													
2941=	TU	26	2037	9605	RUSS	DW		387	47	90	55	15N	37	01E	KO	56B	IT	74B	KR	67B	BL	70C																	
2942=	TU	29	2046	9605	RUSS	DW		1787	121	108	53	40N	60	77E	KO	61B	KR	66C	BL	68B	IT	70B																	
2943=	TU	26	0101	9635	RUSS	VOA	WOF066	0	0	0	0	00N	0	00E	u2	54B	ss	40B	ko	58A																			
2944=	TU	28	1701	9635	RUSS	BBC	WOOF	132	30	99	54	73N	44	30E	IT	70C	KR	66A	KO	58A	BL	72A	U2	67B	NE	68B													
															NO	86B	N1	110B																					
2945=	TU	29	1652	9635	RUSS	BBC	WOOF	0	0	0	47	92N	49	72E	N1	115B	N2	125B																					
2946=	TU	28	0601	9660	RUSS	RL	L3	325	33	99	55	41N	41	06E	U2	65A	NO	85B	NE	69B	SS	40B	BL	70B	IT	72A													
2947=	TU	29	0631	9660	RUSS	RL	L3	88	32	108	54	97N	42	88E	U2	64A	NO	86A	N2	125B	N1	113B	NE	66B	BL	70B													
															KO	59A																							
2948=	TU	25	2233	9670	RUSS	VOA	KAV051	303	59	100	55	29N	42	50E	NO	85B	KO	59B	KR	66B	IT	70B																	
2949=	TU	24	2335	9680	RUSS	RL	L2	1444	91	102	53	83N	58	23E	KO	60A	KR	65B	BL	69B																			
2950=	TU	23	2301	9680	RUSS	RL	L2	139	31	91	55	66N	31	56E	NO	90B	U2	67A	NE	68B	BL	70C	IT	70C	KO	50B													
2951=	TU	25	2331	9680	RUSS	RL	L2	921	89	99	55	17N	49	79E	KR	66B	IT	69C	KO	58B	U2	65C																	
2952=	TU	26	2346	9680	RUSS	RL	L2	407	42	94	55	37N	39	59E	U2	65A	NE	69B	KR	67B	KO	56B	IT	73B															
2953=	TU	27	2216	9680	RUSS	RL	L2	0	0	0	0	00N	0	00E	ne	75B	n0	130B	n1	118B																			
2954=	TU	29	0431	9680	RUSS	RL	L2	0	0	0	10	61N	115	93E	U2	63A	NE	67B																					
2955=	TU	24	0327	9680	RUSS	RL	L2	0	0	0	54	40N	44	24E	NE	69B	NO	85B																					
2956=	TU	29	2231	9680	RUSS	RL	L2	388	46	93	55	01N	38	03E	U2	67B	NE	68B	IT	75B	KO	57B	KR	67B															
2957=	TU	25	0310	9690	RUSS	DW		1110	83	99	54	51N	50	12E	IT	73C	KO	60B	BL	70B	KR	65B																	
2958=	TU	24	0301	9690	RUSS	DW		174	49	96	54	88N	35	03E	IT	72C	KO	58B	BL	70C	NO	92B																	
2959=	TU	25	2316	9705	RUSS	RL	B5	0	0	0	48	92S	145	19E	NO	85B	U2	96B																					
2960=	TU	24	1701	9715	RUSS	DW		91	31	77	54	37N	13	82E	U2	66B	NE	68B	NO	85C	NE	87B	LR	31B	BE	36B													
															SS	36B																							
2961=	TU	26	1522	9715	RUSS	DW		472	54	88	55	16N	37	45E	KO	56B	IT	70C	BL	72B																			
2962=	TU	23	1516	9715	RUSS	DW		171	21	82	55	28N	32	13E	IT	70B	BL	70A	KR	66A	KO	53A																	
2963=	TU	27	1646	9715	RUSS	DW		0	0	0	55	65N	43	60E	BL	68A	IT	71A																					
2964=	TU	27	0231	9750	RUSS	RL	P4	345	61	104	55	71N	36	68E	U2	62C	NE	68B	NO	87B																			
2965=	TU	24	0231	9750	RUSS	RL	P4	84199	623	145	9	16N	114	50E	U2	65B	U2	65B	U2	65B	NE	69B																	
2966=	TU	29	2301	9750	RUSS	RL	P4	0	0	0	54	34N	48	11E	U2	66B	NE	68B																					
2967=	TU	24	0101	9770	RUSS	VOA	TAN044	0	0	0	45	86S	166	86E	U2	60C	NE	69B																					
2968=	TU	29	0335	9770	RUSS	VOA	TAN044	183	21	82	55	52N	33	20E	KR	66A	IT	70B	KO	53A	BL	68A																	
2969=	TU	28	2031	9815	RUSS	IBA		0	0	0	45	49N	77	59E	U2	65B	NE	68B																					
2970=	TU	10	1613	11700	RUSS	IBA		138	20	81	55	98N	31	79E	IT	69A	BL	68A	KO	50A	KR	65B	U2	66B															
2971=	TU	13	1646	11710	RUSS	VOA	WOF066	0	0	0	54	95N	43	76E	U2	66B	NO	84B																					
2972=	TU	9	2131	11710	RUSS	VOA	WOF066	310	45	100	54	94N	40	35E	U2	65B	NO	87B	IT	73B	BL	72B	KR	67B															
2973=	TU	11	2031	11710	RUSS	VOA	WOF066	565	40	95	55	90N	42	21E	U2	63B	IT	70A	BL	70B	KO	53C	KR	65C															
2974=	TU	12	2050	11750	RUSS	DW		224	31	76	56	00N	32	19E	U2	65B	BL	68B	KO	51A	KR	60B																	
2975=	TU	9	2045	11750	RUSS	DW		218	34	80	55	18N	28	08E	IT	70B	BL	72B	KO	50B	KR	67B																	
2976=	TU	11	2046	11750	RUSS	DW		0	0	0	55	63N	20	22E	IT	70C	U2	65B																					



2982	-TU	14	1531	11780	RUSS BBC WOOF	0	0	0	56.13N	40.64E	NO	83A	N2	128A							
2983	-TU	11	1531	11780	RUSS BBC WOOF	365	45	104	54.76N	48.80E	U2	65A	NO	80B	IT	69C	BL	70A	NO	82B	
2984	-TU	9	1201	11780	RUSS BBC WOOF	455	75	98	55.88N	39.24E	U2	63C	U2	63C	NO	85C	KR	65B			
2985	-TU	13	1916	11790	RUSS BBC WOOF	750	50	87	55.62N	29.56E	U2	64B	IT	76C	KR	65B					
2986	-TU	11	2001	11790	RUSS BBC WOOF	263	37	85	55.36N	27.93E	U2	65B	NO	100D	IT	70C	BL	70B	KR	65B	
2987	-TU	14	1901	11790	RUSS BBC WOOF	0	0	0	52.40N	52.76E	U2	68B	NO	83A							
2988	-TU	13	1131	11805	RUSS VOA WOF075	0	0	0	55.19N	28.38E	U2	68B	LR	37D							
2989	-TU	11	2016	11805	RUSS VOA KAV026	275	42	92	55.51N	34.66E	U2	66B	IT	70C	BL	70B	KR	65B	NO	90C	
2990	-TU	12	1101	11805	RUSS VOA WOF075	0	0	0	55.63N	20.22E	U2	65B	IT	70B							
2991	-TU	9	2146	11805	RUSS VOA KAV026	206	32	82	55.26N	28.58E	IT	70B	BL	72B	KO	50B	KR	67B	U2	67B	
2992	-TU	12	0246	11825	RUSS RL HC	272	40	83	55.49N	31.61E	IT	70B	BL	70C	KO	52B	KR	68B			
2993	-TU	11	1201	11835	RUSS BBC CYPRUS	393	32	97	55.56N	44.86E	U2	66A	NO	80C	IT	68A	BL	70A	KO	55C KR 65B	
2994	-TU	9	1603	11845	RUSS BBC CYPRUS	3558	162	168	47.13N	39.34E	N3	155B	AL	36D	FL	35D					
2995	-TU	14	1505	11845	RUSS BBC CYPRUS	0	0	0	54.94N	45.19E	KR	66A	NO	83A							
2996	-TU	13	1531	11845	RUSS BBC CYPRUS	0	0	0	54.75N	41.74E	U2	67B	NO	86A							
2997	-TU	9	1516	11845	RUSS BBC CYPRUS	155	24	75	55.24N	28.05E	U2	66C	KR	65A	BL	70C	KO	50A			
2998	-TU	10	1701	11845	RUSS BBC CYPRUS	320	65	96	55.98N	32.36E	U2	64B	KR	65C	NO	90C					
2999	-TU	12	1631	11845	RUSS BBC CYPRUS	0	0	0	38.92N	89.45E	U2	64B	KO	67A							
3000	-TU	9	1846	11855	RUSS VOA MUN058	0	0	0	55.73N	33.01E	NO	90B	U2	66B							
3001	-TU	10	1832	11855	RUSS VOA MUN058	84	25	82	54.71N	23.11E	NO	108B	KR	65A	IT	73B	BL	70C	KO	49B	
3002	-TU	9	1031	11875	RUSS RL B4	2093	69	79	56.07N	20.30E	U2	63B	AL	30D	FL	42D	SS	43D			
3003	-TU	10	1404	11875	RUSS RL L5	0	0	0	55.12N	37.84E	NO	88B	U2	67B							
3004	-TU	10	1016	11875	RUSS RL B4	0	0	0	16.61S	111.86E	NO	85B	SS	45D							
3005	-TU	9	0931	11875	RUSS RL B4	32070	531	146	3.78N	123.44E	U2	60B	KR	66A	IT	69B	ko	49C			
3006	-TU	9	1416	11875	RUSS RL L5	104	35	87	55.18N	22.45E	KR	62B	IT	73B	BL	65C	ko	58B	NO	105B	
3007	-TU	15	0835	11875	RUSS RL B4	0	0	0	0.00N	0.00E	u2	64B	ss	42D							
3008	-TU	14	1523	11875	RUSS RL L5	0	0	0	56.67N	38.16E	NO	83A	N1	116A							
3009	-TU	12	0928	11875	RUSS RL B4	0	0	0	38.25N	55.95E	AL	29D	FL	34D							
3010	-TU	9	1146	11875	RUSS RL B4	222	50	73	54.98N	25.34E	KR	65C	IT	77C	KO	48B					
3011	-TU	9	0647	11875	RUSS RL G5	237	92	143	54.76N	48.56E	U2	64B	NO	83C	N3	134B					
3012	-TU	15	1231	11875	RUSS RL B4	191	35	92	55.61N	33.68E	NO	90B	KR	65A	IT	71C					
3013	-TU	9	0857	11875	RUSS RL B4	18067	1526	142	31.84N	50.42E	AL	36D	BE	45D	FL	42D	LR	46D			
3014	-TU	15	1031	11875	RUSS RL B4	0	0	0	55.80N	39.13E	U2	65C	NO	85B							
3015	-TU	15	0953	11875	RUSS RL B4	0	0	0	36.16N	60.97E	LR	33D	SS	42D							
3016	-TU	9	1416	11885	RUSS RL L6	129	49	107	55.52N	39.83E	KR	65B	IT	76B	BL	63C	U2	66B	N1	115B	
3017	-TU	9	0631	11885	RUSS RL P4	87	45	97	55.84N	35.68E	U2	65B	N2	136B	KR	67B	IT	73B	KO	50B	
3018	-TU	13	1422	11895	RUSS RL H15	0	0	0	55.22N	33.87E	NO	91B	N3	160B							
3019	-TU	11	1601	11905	RUSS DW	228	27	93	55.32N	38.54E	U2	65B	KR	67A	IT	68B	BL	70A	NO	87B BE 36D	
3020	-TU	12	1516	11905	RUSS DW	931	82	105	54.25N	51.84E	KR	66A	it	90C	ko	51A	U2	65B	NO	80C	
3021	-TU	11	1731	11905	RUSS DW	0	0	0	55.80N	39.13E	NO	85B	U2	65B							
3022	-TU	10	1631	11905	RUSS DW	344	51	100	56.06N	38.30E	U2	64A	NO	85B	KR	66C					
3023	-TU	9	1618	11905	RUSS DW	0	0	0	55.16N	41.62E	KR	66A	NO	85B							
3024	-TU	13	1550	11905	RUSS DW	0	0	0	55.16N	41.62E	KR	66A	NO	85A							
3025	-TU	9	1516	11915	RUSS DW	410	47	99	55.34N	45.25E	KR	65A	KR	65A	NO	82B					
3026	-TU	9	1731	11915	RUSS DW	585	50	113	55.30N	41.04E	U2	66B	BE	35D	FL	30D	LR	38D	PS	34D SS 42D	
3027	-TU	9	1618	11915	RUSS DW	221	41	96	54.98N	35.91E	KR	67A	BE	39D	FL	35D	NO	90B			
3028	-TU	11	1701	11915	RUSS DW	403	64	106	56.04N	34.12E	U2	65B	NO	88B	BE	37D	FL	41D	GI	22D	
3029	-TU	12	1516	11915	RUSS DW	0	0	0	0.00N	0.00E	ko	66A	it	90B	ko	51A					
3030	-TU	10	1516	11915	RUSS DW	92	43	105	55.03N	36.97E	KR	66C	IT	76B	BL	70C	KO	55B	NO	90B N2 135B	
3031	-TU	14	1631	11915	RUSS DW	0	0	0	54.17N	52.13E	U2	65B	NO	80A							
3032	-TU	13	1601	11915	RUSS DW	703	59	118	53.70N	43.77E	U2	69B	NO	87A	BE	35D	FL	32D	LR	37D PS 38D	
3033	-TU	9	1831	11935	RUSS RL B4	489	47	91	55.30N	37.49E	U2	58C	AL	39D	SS	42D	KR	67C	IT	74B BL 70B	
3034	-TU	10	1901	11935	RUSS RL B4	78	22	89	56.19N	33.56E	U2	63B	NO	87A	KR	63A	IT	73B	BL	70B KO 50A	
3035	-TU	15	1931	11935	RUSS RL B4	238	56	94	54.94N	29.19E	FL	33D	GI	41D	PS	34D	SS	44D			
3036	-TU	9	0317	11935	RUSS RL P5	0	0	0	55.85N	23.11E	U2	71C	NO	96C	KR	66B					
3037	-TU	11	1931	11935	RUSS RL B4	2713	134	102	54.53N	49.76E	U2	65B	KR	67D	it	98C	BL	70C			



3096=	TU	21	1917	15390	RUSS	BBC	CYPRUS	4594	671	133	47.47N	49.39E	LR 32B	SS 37B	FL 34B										
3097=	TU	17	1417	15405	RUSS	IBA		0	0	0	54.49N	50.31E	U2 65A	NE 67B											
3098=	TU	22	1318	15405	RUSS	IBA		2387	73	122	52.57N	46.96E	NO 87A	BE 35B	LR 33B	SS 41B									
3099=	TU	21	1416	15405	RUSS	IBA		5197	702	140	41.25N	58.76E	FL 30B	BE 37B	SS 39B										
3100=	TU	20	1601	15405	RUSS	DW		1069	49	85	54.73N	26.11E	u2 65B	NE 70B	SS 40B	KR 67B									
3101=	TU	16	1836	15405	RUSS	IBA		0	0	0	54.13N	15.44E	NE 69B	SS 38D											
3102=	TU	16	1614	15405	RUSS	DW		125	20	71	54.04N	15.45E	SS 39D	GI 30D	NE 79B	BK 58A	U2 65B	U2 65B							
													NE 68B												
3103=	TU	22	1701	15405	RUSS	DW		293	38	109	56.21N	37.30E	NO 85A	U2 65C	NE 65B	SS 39B									
3104=	TU	19	1520	15405	RUSS	DW		492	27	92	55.50N	40.55E	KR 66A	KR 66A	IT 70B	BL 68A	KO 57B								
3105=	TU	17	1316	15405	RUSS	IBA		106	39	92	54.96N	20.02E	NO 110B	NE 67B	NE 67B										
3106=	TU	22	1531	15405	RUSS	DW		198	44	108	55.42N	40.56E	NO 85A	FL 30B	LR 34B	PS 27B	BE 35B	KR 66B							
													KO 56B												
3107=	TU	21	1631	15405	RUSS	DW		232	38	95	55.71N	36.83E	NO 87B	NE 67B	KR 65A	U2 60C									
3108=	TU	19	1731	15405	RUSS	DW		0	0	0	55.98N	35.85E	U2 65A	NE 66B											
3109=	TU	17	1501	15405	RUSS	DW		120	18	81	55.69N	29.68E	BK 61A	KR 66A	IT 72A	KO 50A	NE 67B	SS 39B							
													BE 36B	FL 30B	KI 20B										
3110=	TU	22	1201	15435	RUSS	BBC	CYPRUS	409	49	112	55.16N	41.63E	U2 65C	NE 68B	NO 85A										
3111=	TU	17	1132	15445	RUSS	RL	G1	246	29	87	55.15N	37.16E	KR 67A	IT 72B	BL 71B	KO 56A									
3112=	TU	20	0821	15445	RUSS	RL	G1	550	79	107	54.40N	44.24E	NE 69B	NO 85B	NE 69B										
3113=	TU	28	0901	17685	RUSS	IBA		0	0	0	54.66N	16.61E	NO 120B	NE 66B											
3114=	TU	26	1201	17695	RUSS	BBC	WOOF	356	45	99	55.56N	42.39E	U2 63A	NO 84B	KR 66A	ne 86B									
3115=	TU	24	0616	17725	RUSS	RL	G2B	11619	760	139	27.21S	117.27E	NE 91B	ne 78B	NE 91B	NO 87B									
3116=	TU	25	0846	17725	RUSS	RL	G2B	0	0	0	54.40N	44.24E	NE 69B	NO 85B											
3117=	TU	26	0605	17725	RUSS	RL	G2B	324	36	89	55.42N	35.49E	NE 66B	KR 66C	KO 55B	IT 75B	BL 70B	NE 66B							
3118=	TU	26	0746	17725	RUSS	RL	G2B	0	0	0	55.67N	35.69E	NE 67B	NO 88B											
3119=	TU	26	0816	17725	RUSS	RL	G2B	0	0	0	54.99N	42.23E	NE 68B	NO 85C											
3120=	TU	26	1031	17725	RUSS	RL	G2B	0	0	0	0.00N	0.00E	n0 90B	u2 65B	ne 80B										
3121=	TU	26	1216	17725	RUSS	RL	G2B	0	0	0	30.24S	123.17E	NE 89B	NO 84B											
3122=	TU	27	0701	17725	RUSS	RL	G2B	2296	86	107	53.27N	52.30E	U2 67B	IT 72B	BL 73B	NE 70B	KR 70D								
3123=	TU	27	0846	17725	RUSS	RL	G2B	0	0	0	56.38N	44.22E	NE 64B	NO 80C											
3124=	TU	23	1146	17725	RUSS	RL	G2B	0	0	0	42.48S	134.97E	NE 94B	NO 85B											
3125=	TU	29	0601	17725	RUSS	RL	G2B	317	20	72	54.24N	18.28E	BK 60A	KR 65A	NE 68B										
3126=	TU	23	0601	17725	RUSS	RL	G2B	26591	427	140	26.77S	147.43E	BK 66A	NE 63B	BL 72B	KR 65B									
3127=	TU	29	1235	17725	RUSS	RL	G2B	566	85	107	54.57N	46.22E	NE 69B	NO 83B	KR 66B										
3128=	TU	26	0616	17760	RUSS	RL	L4	34959	554	134	37.18S	154.18E	NE 67B	KR 70C	NE 68B										
3129=	TU	26	1435	17770	RUSS	RL	P4	1325	72	80	57.00N	27.70E	SS 37B	NE 61B	FL 30B										
3130=	TU	24	0620	17770	RUSS	RL	P6	8007	667	132	38.21S	129.98E	NE 91B	NE 93B	NO 85B	kr 66B									
3131=	TU	28	0831	17770	RUSS	RL	P6	5900	108	104	54.34N	48.11E	U2 66B	U2 66B	NE 68B										
3132=	TU	29	0731	17770	RUSS	RL	P6	0	0	0	55.74N	26.70E	U2 66B	NE 66B											
3133=	TU	25	1201	17780	RUSS	BBC	WOOF	639	67	107	53.93N	52.09E	BK 66A	U2 66A	NO 80B										
3134=	TU	25	1016	17825	RUSS	RL	P6	0	0	0	53.32N	51.69E	NE 69B	NO 82A											
3135=	TU	26	0946	17825	RUSS	RL	P6	0	0	0	54.20N	45.92E	NE 69B	U2 67C											
3136=	TU	23	0631	17895	RUSS	RL	P5	0	0	0	55.11N	45.22E	BK 65A	NE 67B											
3137=	TU	16	0016	7190	TB	RL	L1	265	43	95	56.00N	41.60E	IT 70B	KR 65B	BL 68B	KO 52B	NE 69B	NO 80B							
3138=	TU	17	0031	7190	TB	RL	L1	1357	90	117	50.03N	71.87E	bk 58A	U2 66B	KO 64A	BL 68A	IT 70B	KR 66A							
													NO 70C	SS 37D											
3139=	TU	27	0031	9725	TB	RL	B8	0	0	0	10.03N	115.13E	U2 64B	NE 68B											
3140=	TU	21	2246	7295	TI	RL	L4	0	0	0	56.12N	25.68E	KR 60C	IT 70C											
3141=	TU	21	1024	15370	TI	RL	HA	0	0	0	55.92N	38.62E	KR 64B	NO 85B											
3142=	TU	25	1716	9565	UKR	RL	L5	130	55	125	54.47N	43.27E	NE 71B	b1 58B	IT 65D	KO 60B	NO 85B	N1 115B							
													N2 125B												
3143=	TU	24	2101	9565	UKR	RL	HA	326	55	103	55.04N	38.26E	U2 68B	SS 39B	AL 41B	LR 41B	NO 86B	NE 69B							
													NE 69B												
3144=	TU	26	2046	9565	UKR	RL	HA	225	37	82	54.15N	27.36E	KR 67B	BL 72B	IT 86C	KO 56B									
3145=	TU	26	2116	9565	UKR	RL	HA	266	32	83	54.02N	13.62E	NE 69B	U2 67C	IT 86C										
3146=	TU	26	2246	9565	UKR	RL	P4	434	41	83	54.54N	23.45E	KR 71C	BL 70C	IT 80C	NE 68B									
3147=	TU	24	1916	9565	UKR	RL	HA	0	0	0	53.72N	46.40E	NE 70B	NO 85B											
3148=	TU	27	1801	9565	UKR	RL	L5	223	27	88	55.74N	26.72E	IT 72A	U2 67B	NO 96C	NE 67B									
3149=	TU	28	1750	9565	UKR	RL	L5	0	0	0	55.62N	38.48E	NO 86B	N1 118B											

3150=	TU	28	1916	9565	UKR	RL	HA		197	32	99	55.89N	35.33E	IT	72A	NO	87B	NO	87B	SS	36B	FL	37B	LR	40B	
3151=	TU	29	2131	9565	UKR	RL	HA		361	38	77	54.05N	13.22E	BE	45B											
3152=	TU	26	0501	9660	UKR	RL	L3		0	0	0	0.00N	0.00E	U2	66B	NE	71B	KI	42B	FL	37B	LR	41B	PS	30B	
3153=	TU	27	0531	9660	UKR	RL	L3		200	62	123	55.12N	41.17E	BE	50B	SS	39B	AL	40B							
3154=	TU	24	0401	9660	UKR	RL	L3		281	38	129	51.31S	178.87E	u2	64B	n2	125B	it	101C							
3155=	TU	25	0431	9660	UKR	RL	L3		111	41	101	55.15N	38.03E	NO	85B	NI	115B	NE	68B	SS	40B	FL	37B			
3156=	TU	23	0140	9760	UKR	VOA	WOF075		183	21	82	55.48N	32.99E	U2	63B	NI	120B	NE	70B	KO	62C	IT	74C	BL	70B	
3157=	TU	16	1652	15380	UKR	RL	P3		0	0	0	54.40N	44.24E	KR	66A	KO	53A	BL	68A	IT	71B					
3158=	TU	20	1705	15380	UKR	RL	P3		4579	616	141	38.38N	58.80E	NE	69B	NO	85B									
3159=	TU	17	1657	15380	UKR	RL	P3		2955	438	142	45.69N	52.30E	LR	32B	BE	37B	FL	37B	SS	40B					
3160=	TU	12	1628	11700	YIDD	IBA			0	0	0	56.28N	38.50E	SS	40B	PS	28B	AL	30B	BE	35B	LR	32B	FL	32B	
3161=	U5	17	0707	7165	CZEC	RFE	B9B		2570	144	84	54.47N	28.78W	KI	22B											
3162=	U7	10	1025	11890	????	????????????	22518	1316	125	125	45.48N	25.67E	NO	84B	N3	150B										
3163=	U7	10	1109	11890	????	????????????	16303	1688	136	136	38.72N	38.67E	BE	56B	FL	43B	LR	45B	PS	41B						
3164=	U7	10	0401	5955	BR	RL	HB		0	0	0	0.00N	0.00E	BE	53D	FL	43D	PS	40D							
3165=	U7	11	1031	6020	CZEC	DW		43	19	136	49.86N	15.90E	AL	40D	FL	43D	PS	41D								
3166=	U7	12	1050	6020	CZEC	DW		46	25	148	50.45N	15.17E	u2	98C	f1	35D	gi	192D	ss	40D						
3167=	U7	14	1046	6020	CZEC	DW		67	28	140	50.37N	15.39E	U2	96B	NO	140C	N2	180C	IT	133A	BL	148B	KR	106C		
3168=	U7	15	1118	6020	CZEC	DW		85	26	160	51.76N	14.72E	KO	60B												
3169=	U7	12	0516	6115	CZEC	RFE	B2		45	19	118	50.12N	15.92E	BL	148B	IT	136B	KO	52B							
3170=	U7	9	2002	6115	CZEC	RFE	B3		0	0	0	0.00N	0.00E	BL	145B	KO	35D	KR	102B							
3171=	U7	13	2001	6115	CZEC	RFE	B3		116	46	98	50.02N	16.46E	NO	140A	N2	183A	N3	197B							
3172=	U7	11	0517	6115	CZEC	RFE	B2		59	6	90	52.57N	13.76E	KO	58B	IT	131A	KR	99A							
3173=	U7	10	2150	6115	CZEC	RFE	B3		0	0	0	53.24N	14.43E	n0	133B	ko	62C	it	135B							
3174=	U7	10	0646	6115	CZEC	RFE	B2		67	23	117	50.00N	15.24E	KO	60C	IT	123D	KR	100B							
3175=	U7	12	2116	6115	CZEC	RFE	B3		0	0	0	49.70N	15.75E	BL	90C	kr	100B	NO	140B	N3	200B					
3176=	U7	11	2102	6115	CZEC	RFE	B3		142	97	134	50.50N	17.70E	N1	175B	NO	135B									
3177=	U7	14	2346	6115	CZEC	RFE	B3		65	24	118	50.23N	18.13E	KO	75D	IT	142B	KR	100A	NO	140B					
3178=	U7	15	2131	6115	CZEC	RFE	B3		42	16	116	49.51N	16.85E	IT	135B	U2	97C									
3179=	U7	20	0631	7165	CZEC	RFE	B9B		0	0	0	0.00N	0.00E	NO	135C	KO	60D	BE	51D							
3180=	U7	19	0701	7165	CZEC	RFE	B9B		60	27	140	49.86N	16.04E	KO	61B	IT	120A	KR	101B							
3181=	U7	19	2301	7245	CZEC	RFE	G2		6122	602	126	44.07S	132.59E	U2	97A	U2	97A	U2	97A	NO	135B	KO	65B	BL	146B	
3182=	U7	18	2231	7245	CZEC	RFE	B1		43	19	129	50.13N	15.71E	IT	131B	KR	102B	N1	170B							
3183=	U7	20	2325	7245	CZEC	RFE	G2		92	36	120	50.85N	15.47E	bk	95A	u2	97B	ne	96B							
3184=	U7	20	2249	7245	CZEC	RFE	B1		0	0	0	51.24N	15.26E	U2	97C	KR	102C	IT	130C	BL	146B	KO	60C	NO	143B	
3185=	U7	27	0618	9725	CZEC	RFE	G3A		50	24	80	50.16N	16.99E	N2	178C											
3186=	U7	24	0546	9725	CZEC	RFE	G3A		3388	72	113	48.78N	26.26E	U2	97B	NE	93B	NO	92B	be	51B					
3187=	U7	29	0610	9725	CZEC	RFE	G3A		48	31	124	49.67N	16.08E	BL	146C	KO	63B	KR	93C							
3188=	U7	11	0546	11855	CZEC	RFE	G4B		18675	1034	115	52.45N	12.62E	NO	140B	U2	96B	NO	140C	NE	93B					
3189=	U7	12	0726	11855	CZEC	RFE	G4B		9984	1062	115	53.84N	10.51E	FL	44B	KO	62A	KR	100C	BL	140C	NE	95B			
3190=	U7	10	1854	11865	CZEC	DW		14456	1386	130	42.70N	29.97E	NE	96B	PS	40B	SS	44B								
3191=	U7	9	1846	11865	CZEC	DW		57	24	104	49.93N	15.63E	KO	64B	KR	102B	BL	148B								
3192=	U7	9	1401	11970	LAT	RFE	P2		0	0	0	0.00N	0.00E	BE	51D	FL	40D	PS	39D							
3193=	U7	9	0431	5955	LITH	RFE	HB		9451	185	123	42.67N	38.25E	AL	43D	FL	40D	LR	43D							
3194=	U7	13	0435	5955	LITH	RFE	HB		0	0	0	55.65N	32.62W	AL	42D	BE	53D	FL	43D							
3195=	U7	9	1716	11815	ROMA	RFE	B1		68	19	127	49.68N	16.17E	NO	140B	KR	102A	KO	57B							
3196=	U7	9	2315	6170	RUSS	RL	B6		0	0	0	22.00N	140.09E	u2	97B	kr	98A									
3197=	U7	22	0501	7155	RUSS	RL	HD		2723	121	114	48.01N	25.22E	U2	95B	BE	45D	FL	36D	SS	40D					
3198=	U7	19	0501	7155	RUSS	RL	HD		1082	52	101	51.50N	14.23E	FL	36D	BE	51D									
3199=	U7	21	0931	7220	RUSS	RL	L2		0	0	0	50.97N	9.07E	KR	102A	IT	134A	BL	140C							
3200=	U7	16	0605	7220	RUSS	RL	HC		3817	653	90	56.87N	12.40W	U2	94C	BE	51B	PS	38B							
															n0	90B	u2	96A	PS	40B	AL	46B	FL	39B	LR	46B
															BE	48B	SS	40B	NE	94B						
															BK	96A	U2	97A								
															BE	50D	SS	33D	FL	36D						

3201=U7	17	0727	7220	RUSS	RL	HC	0	0	0	52.43N	8.33E	PS	42B	SS	40B				
3202=U7	21	1735	7255	RUSS	DW		0	0	0	52.21S	176.64E	NE	93B	U2	97B				
3203=U7	19	1501	7255	RUSS	DW		0	0	0	0.00N	0.00E	u2	97B	ne	68B				
3204=U7	17	1508	7255	RUSS	DW		0	0	0	0.00N	0.00E	it	132B	ko	65A	kr	130C		
3205=U7	15	1225	11770	RUSS	RL	G8	0	0	0	0.00N	0.00E	it	120B	ko	62A	kr	102A		
3206=U7	14	1001	11770	RUSS	RL	G8	75	15	140	49.58N	16.64E	U2	98B	NO	138B	IT	132A	BL	144A
3207=U7	11	1015	11770	RUSS	RL	G8	6601	1086	126	46.95N	30.12E	AL	34D	BE	52D	FL	40D	PS	41D
3208=U7	12	1027	11770	RUSS	RL	G8	94	15	140	49.72N	16.56E	IT	131A	BL	143A	ko	105A	KR	101B
3209=U7	12	1121	11770	RUSS	RL	G8	51	23	78	50.15N	16.62E	IT	125B	KO	60A	KR	101B		
3210=U7	9	0850	11885	RUSS	RL	B5	0	0	0	45.99N	30.14E	KR	100B	KO	89C				
3211=U7	10	0719	11885	RUSS	RL	B5	0	0	0	53.80N	6.30W	FL	41D	LR	48D				
3212=U7	10	0821	11885	RUSS	RL	B5	0	0	0	44.27N	33.49E	BE	49D	FL	41D				
3213=U7	10	1650	11915	RUSS	DW		9975	1534	126	42.54N	37.85E	BE	47D	FL	43D	SS	45D		
3214=U7	9	1731	11915	RUSS	DW		7655	200	125	41.57N	39.17E	U2	96B	AL	40D	PS	35D		
3215=U7	10	1907	11935	RUSS	RL	B4	0	0	0	58.91N	2.54W	AL	41D	GI	37D				
3216=U7	15	1131	11970	RUSS	RL	L6	10964	149	130	37.07N	46.73E	U2	96A	FL	42D	PS	43D	BE	40D
3217=U7	9	1146	11970	RUSS	RL	L6	0	0	0	49.79N	16.84E	KR	100B	BL	140C				
3218=U7	15	0636	11970	RUSS	RL	L6	6736	1173	117	49.10N	19.19E	BE	51D	SS	43D	PS	42D		
3219=U7	9	0701	11970	RUSS	RL	L6	10299	82	101	51.15N	10.02E	U2	94C	FL	41D	SS	41D	kr	100A
3220=U7	11	0741	11970	RUSS	RL	L6	5546	63	105	50.54N	14.09E	BE	51D	FL	43D	SS	41D	U2	94B
3221=U7	13	1201	11970	RUSS	RL	L6	0	0	0	0.00N	0.00E	u2	95B	kr	102A				
3222=U7	15	0905	11970	RUSS	RL	L6	4591	62	106	50.48N	13.54E	kr	102B	FL	42D	LR	46D	PS	43D
3223=U7	11	0605	11970	RUSS	RL	L6	6140	991	123	48.08N	24.94E	AL	40D	BE	51D	FL	40D	LR	45D
3224=U7	20	0101	15370	RUSS	RL	P6	0	0	0	49.08N	19.21E	U2	96B	NO	135B				
3225=U7	21	1820	15370	RUSS	RL	HA	2867	754	137	37.03N	49.24E	FL	40B	SS	46B	GI	25B		
3226=U7	25	0916	17895	RUSS	RL	P5	0	0	0	52.33S	171.51E	U2	97B	NE	96B				
3227=U7	24	1135	17895	RUSS	RL	P5	0	0	0	39.04N	42.54E	FL	41B	BE	48B				
3228=U7	20	1616	15370	TB	RL	HA	1193	166	127	45.08N	40.43E	FL	41B	NE	96C	SS	42B	NO	100C
3229=U7	21	1648	15370	TB	RL	HA	0	0	0	49.69N	6.53E	SS	43B	FL	44B				
3230=U7	22	1420	15370	TI	RL	HA	3150	480	123	46.84N	28.74E	BE	51B	FL	40B	PS	37B	SS	44B
3231=U7	17	1340	15370	TI	RL	HA	2078	578	116	48.72N	16.66E	PS	42B	SS	44B	DS	33B		
3232=U7	18	1016	15370	TI	RL	HA	50	18	89	50.01N	16.57E	U2	99B	NE	95B	KR	99A	KO	62A
3233=U7	15	0337	5960	TUR	????		7850	1233	117	50.15N	23.23E	FL	35D	SS	43D	BE	50D		
3234=U7	13	0405	11885	UKR	RL	P4	0	0	0	44.90N	26.88E	FL	43D	PS	42D				
3235=U7	14	0507	11885	UKR	RL	P4	14226	1435	130	44.92N	29.48E	FL	43D	AL	42D	LR	44D		
3236=U8	20	1942	15115	BULG	RFE	G3	0	0	0	46.52N	19.87E	IT	134A	KR	114C				
3237=UA	26	1145	9725	HUNG	RFE	B8	0	0	0	33.29N	114.41E	AN	292B	LV	316B				
3238=UA	24	1108	9725	HUNG	RFE	B8	0	0	0	52.95N	139.78E	AN	290B	LV	319B				
3239=UA	29	1011	9725	HUNG	RFE	B8	1007	345	51	47.01N	134.33E	FE	310B	AN	288B	WP	313B		
3240=UA	17	0950	7220	RUSS	RL	L2	7064	475	37	35.70N	119.71E	FE	312B	LV	316B	DS	319B	AN	290B
3241=UA	19	0723	7220	RUSS	RL	HC	0	0	0	52.06N	143.21E	LV	317B	FE	312B				
3242=UA	22	0859	7220	RUSS	RL	L2	286	30	126	50.56N	126.18W	FE	312B	AN	298B	DS	322B		
3243=UA	21	0941	7220	RUSS	RL	L2	738	211	59	54.88N	146.85E	AN	289B	DS	324B	FE	311B	WP	324B
3244=UA	22	0540	15130	RUSS	RL	P2	3116	199	56	55.79N	148.74E	AN	289B	KI	328B	LV	320B	DS	323B
3245=UA	22	0635	15130	RUSS	RL	P2	3787	267	50	51.42N	140.72E	AN	288B	DS	322B	LV	318B	FE	311B
3246=UB	24	0316	9650	RUSS	DW		0	0	0	43.08S	168.52E	KO	80C	BL	70C				
3247=UD	13	1921	11755	????	???????????????		0	0	0	50.32N	138.50E	LV	317D	WP	317D				
3248=UD	15	1650	11855	????	?????????????????		12610	928	43	44.65N	132.62E	LV	315D	AN	287D	FE	309D		
3249=UD	10	1945	11960	????	?????????????????		2270	962	76	50.72N	147.77E	FE	310D	WP	319D	LV	312D		
3250=UD	20	1948	15165	????	?????????????????		4075	322	66	54.44N	158.00E	FE	311B	KI	320B	DS	320B	LV	315B
3251=UD	20	1540	15230	????	?????????????????		1297	468	61	43.05N	132.41E	WP	308B	KI	324B	LV	316B	FE	309B
3252=UD	21	1010	15300	????	?????????????????		1232	465	68	44.36N	137.28E	WP	310B	FE	309B	LV	311B		
3253=UD	29	2035	9625	RUSS	VOA	KAV051	0	0	0	48.71N	137.06E	AN	287B	WP	315B				
3254=UD	26	1748	9690	RUSS	VOA	KAV051	11407	536	36	36.75N	121.30E	KI	331B	AN	288B	DS	321B		
3255=UD	28	1514	9690	RUSS	VOA	KAV051	11514	545	35	33.41N	118.85E	DS	321B	FE	311B	AN	289B		
3256=UD	29	1635	9690	RUSS	VOA	KAV051	0	0	0	26.41N	115.72E	DS	318B	AN	287B				
3257=UD	20	1640	15245	RUSS	BBC	WOOF	4266	341	67	54.83N	157.79E	DS	321B	FE	309B	LV	316B		
3258=UD	20	2115	15290	RUSS	RL	P1	1147	408	52	42.53N	130.79E	WP	308B	LV	313B	AN	286B		
3259=UD	20	0805	15410	RUSS	VOA	PHT349	696	52	55	55.66N	12.98E	NE	51C	KR	40D	NE	50C		
3260=UD	28	1826	17710	RUSS	IBA		0	0	0	19.07S	89.37E	FE	308B	AN	288B				









3432=VR	25	1146	17750	TI	RL	B3	355	30	70	58.52N	31.69E	NE 56B	FL 31B	BL 53A	AL 29B	KI 28B	KR 54C	
3433=VR	25	1316	17750	TI	RL	B3	779	311	133	60.83N	31.82E	SS 37B	FL 32B	AL 30B	DS 314B	PS 30B	SS 33B	AN 1B
3434=VR	23	1131	17750	TI	RL	B3	73	18	78	58.76N	29.90E	BE 37B	LR 32B	U2 52A	AL 32B	LR 32B	BE 37B	37B
3435=VR	26	1305	17750	TI	RL	B3	894	118	104	52.99N	40.05E	FL 34B	KI 26B	SS 36B	PS 30B	NE 55B	KO 40B	
3436=VR	24	1001	17750	TI	RL	B3	26	17	133	59.18N	30.33E	KR 52A	IT 56B	BL 48B				
3437=VR	23	1052	17750	TI	RL	B3	67	30	111	59.63N	28.83E	NE 74B	FL 32B	PS 30B	AL 31B	BE 38B		
3438=VR	26	1046	17750	TI	RL	B3	0	0	0	58.25N	24.82E	U2 60B	NO 78A	N3 167A	KR 51A	NE 55B	NO 78B	
3439=VR	28	1131	17750	TI	RL	B3	0	0	0	60.51N	40.84E	N1 120B	N2 142B	SS 43B	N1 120A	N2 142A		
3440=VR	23	1216	17750	TI	RL	B3	77	31	102	59.07N	30.56E	NO 76A	N1 126B	N2 143B				
3441=VR	24	1316	17750	TI	RL	B3	62	25	116	59.35N	30.92E	NE 54B	NO 85B					
3442=VR	24	1201	17750	TI	RL	B3	56	23	84	59.12N	30.13E	U2 53B	KR 51B					
3443=VR	23	1345	17750	TI	RL	B3	657	71	74	58.07N	26.62E	NE 55B	NO 78A	N2 142B				
3444=VR	29	1031	17750	TI	RL	B3	73	32	86	59.18N	31.04E	NE 56B	NO 76A	N1 121A				
3445=VR	29	1117	17750	TI	RL	B3	103	42	133	59.14N	30.47E	NO 77A	N3 167B	U2 51B	BE 38B	PS 30B	LR 32B	
3446=VR	26	1216	17750	TI	RL	B3	517	5	62	52.48N	5.81E	FL 30B	SS 32B	NE 58B	IT 56B	KR 52A		
3447=VR	26	0505	9625	UKR	RL	P3	459	29	69	58.03N	23.27E	BE 39B	SS 38B	DS 19B	NE 56B			
3448=VR	27	0340	9625	UKR	RL	P3	539	75	75	58.67N	28.85E	BK 50B	U2 53B	NO 78B	N1 121B	NE 56B	BL 53C	
3449=VR	27	0405	9625	UKR	RL	P3	622	64	84	60.05N	41.49E	IT 55B						
3450=VR	27	0546	9625	UKR	RL	P3	0	0	0	59.05N	31.80E	NO 78B	N1 122B	N2 142B				
3451=VR	28	0201	9625	UKR	RL	P3	219	46	85	59.59N	29.98E	NE 53B	FL 31B	GI 25B	AL 31B	NE 75B	SS 37B	
3452=VR	25	0446	9625	UKR	RL	P3	0	0	0	57.39N	23.78E	SS 38B	BE 36B	U2 57B	n0 170B	IT 56A		
3453=VR	14	1711	11885	UKR	RL	L6	0	0	0	53.13N	40.85E	SS 32B	FE 15B	AN 1B	NE 55B			
3454=VR	9	1610	11885	UKR	RL	L6	2378	63	100	58.43N	23.01E	NE 54B	KR 52B	IT 56C	SS 37B	FE 13B	GI 7B	
3455=VR	15	1627	11885	UKR	RL	L6	1357	212	102	56.20N	52.04E	NE 56B						
3456=VS	21	0046	7290	????	????	????	0	0	0	54.13S	173.83W	NE 55B	N1 120B					
3457=VU	20	0828	15450	????	????	????	0	0	0	55.74N	158.10E	NO 76B	U2 54B	NE 52B	AN 359B	FE 15B		
3458=VU	26	1613	9565	RUSS	RL	L5	0	0	0	56.60N	167.93E	NE 57B	SS 34B					
3459=VU	28	1949	9585	RUSS	VOA	MUN058	0	0	0	50.15N	140.70E	FL 31D	AL 30D					
3460=VU	29	2140	9585	RUSS	VOA	MUN058	0	0	0	0.00N	0.00E	AL 32D	BE 40D	LR 38D	PS 32D	NO 85B		
3461=VU	23	1950	9770	RUSS	BBC	CYPRUS	0	0	0	57.35N	152.54E	LS 55D	BE 43D	U2 59B				
3462=VU	20	0614	15290	RUSS	RL	P1	0	0	0	54.49N	155.97E	BL 113B	IT 98B					
3463=VU	16	0720	15430	RUSS	VOA	PHT349	5766	166	124	59.12N	101.64E	FE 310B	LV 317B					
3464=VU	27	1805	9565	UKR	RL	L5	4078	350	46	47.14N	136.40E	FE 308B	DS 321B					
3465=VU	28	1744	9565	UKR	RL	L5	6586	486	37	33.83N	120.30E	AN 286B	WP 317B					
3466=W1	17	1305	15425	RUSS	IBA		793	53	107	53.05N	58.50E	fe 24B	an 286B					
3467=W1	11	1617	11895	TB	RL	H11	0	0	0	54.36N	24.91E	WP 328B	LV 320B					
3468=W4	10	0328	11825	BULG	RFE	G3	0	0	0	45.23N	20.60E	KI 325B	LV 316B					
3469=WA	9	2116	5950	????	????	????	0	0	0	54.31N	45.90E	KR 42A	IT 43C	BL 45A	KO 43C			
3470=WA	10	0121	6140	????	????	????	0	0	0	57.09N	36.06E	AN 286B	LV 316B	DS 319B				
3471=WA	14	2352	6160	????	????	????	0	0	0	54.38N	47.07E	FE 311B	DS 318B	LV 314B	AN 288B			
3472=WA	28	1416	9510	????	????	????	0	0	0	32.06S	146.49E	KR 66A	IT 72A	BL 70A	KO 62A			
3473=WA	11	0746	11960	????	????	????	0	0	0	53.30N	51.74E	KR 68B	KO 50B					
3474=WA	14	0619	11975	????	????	????	0	0	0	56.07N	42.39E	IT 136B	KR 118B					
3475=WA	9	0718	11980	????	????	????	0	0	0	58.18N	27.12E	NO 84B	N3 139B					
3476=WA	14	0629	11985	????	????	????	0	0	0	54.13N	47.88E	NO 83B	N3 154C					
3477=WA	22	0220	15110	????	????	????	2558	477	6	60.95N	55.77E	NO 83B	N3 137B					
3478=WA	21	0205	15110	????	????	????	1222	588	168	45.97N	46.70E	NO 82B	N3 131A					
3479=WA	21	0746	15205	????	????	????	556	53	97	53.52N	46.92E	NO 82B	N3 143B					
3480=WA	18	0748	15205	????	????	????	0	0	0	51.97N	44.39E	NO 84B	N1 133B					
3481=WA	16	0746	15205	????	????	????	0	0	0	0.00N	0.00E	N3 136B	NO 83B					
3482=WA	20	0305	15280	????	????	????	1642	597	177	51.49N	51.42E	DS 6B	AN 345B	FE 2B				
3483=WA	22	1646	15160	BULG	DW		267	33	96	54.17N	41.48E	AL 37B	AN 347B	WP 342B	LR 31B			
												KO 62A	IT 76C	KR 69A				
												KO 66A	IT 81C					
												ko 59A	b1 78A	kr 68A				
												FL 29B	AN 347B	FE 1B				
												KO 60A	IT 76A	KR 69A				



3542=WD	12	0142	11925	RUSS	VOA	KAV095	2961	1171	139	49.54N	31.43E	BE	47D	LR	39D	PS	36D	AN	359D
3543=WD	18	1413	15115	RUSS	RL	G3	0	0	0	59.75N	1.45W	FL	34B	BE	44B				
3544=WD	28	1235	17865	RUSS	VOA	KAV095	0	0	0	49.66S	162.15E	BL	94B	KR	93B				
3545=WD	24	0116	9715	UKR	VOA	TAN044	509	17	85	52.63N	9.49E	NE	80B	U2	80A	NE	80B		
3546=WD	9	0250	11840	UKR	VOA	TAN044	0	0	0	53.29N	12.99E	BE	49D	SS	39D				
3547=WD	12	0210	11840	UKR	VOA	TAN044	2282	900	131	53.74N	28.64E	AN	3D	BE	42D	DS	17D	FL	30D LR 39D PS 37D
												SS	42D						
3548=WG	24	1522	9665	????	??????????????		0	0	0	56.04N	39.53E	NO	84A	N2	130A				
3549=WG	24	1346	9670	????	??????????????		0	0	0	0.00N	0.00E	ne	91B	n0	85A	n1	115A		
3550=WG	23	1316	9740	????	??????????????	108	34	123	56.53N	36.01E	NO	85A	N1	119B	N2	136B			
3551=WG	26	1146	9740	????	??????????????	108	83	62	52.09S	174.50W	KR	70D	IT	70B	BL	91B			
3552=WG	25	1250	9740	????	??????????????	544	56	93	55.11N	46.59E	IT	71B	KO	58A	BL	70B			
3553=WG	26	0835	9745	????	??????????????	373	49	85	55.12N	34.23E	BL	70B	IT	75C	KO	55B			
3554=WG	23	1445	9670	ARM	VOA	RHO060	1283	77	93	55.04N	43.54E	KR	66C	KO	58C	BL	70B		
3555=WG	12	2146	6160	POLI	VOA	KAV355	0	0	0	53.87N	21.58E	KO	47A	BL	72B				
3556=WG	14	2050	6160	POLI	VOA	KAV355	0	0	0	0.00N	0.00E	ko	61B	b1	73B	kr	122C		
3557=WG	14	2203	6160	POLI	VOA	KAV355	368	46	87	55.53N	36.04E	n0	109B	KO	54B	BL	70B	IT	72B
3558=WG	24	0831	9705	POLI	RFE	B2	51	24	114	55.09N	40.23E	NO	84A	U2	64B	N3	154B	N1	116A NE 68B NE 68B
												N2	129B	KR	68A	BL	70B	KO	59A
3559=WG	24	1101	9705	POLI	RFE	B2	54	32	136	55.81N	38.21E	U2	65A	N1	120B	ne	84B	N3	150A NO 90B BL 60C
												IT	72B						
3560=WG	24	1418	9705	POLI	RFE	B2	2621	500	124	59.25N	31.02E	LR	31B	SS	32B	AL	31B		
3561=WG	29	0836	9705	POLI	RFE	B2	113	44	139	56.80N	29.73E	N1	135B	N2	144B	NO	88B		
3562=WG	29	1005	9705	POLI	RFE	B2	0	0	0	60.77N	24.84E	BE	37B	AL	31B				
3563=WG	24	0946	9705	POLI	RFE	B2	373	76	149	51.29N	42.53E	N1	120B	N2	130B	N3	150C	NO	95C
3564=WG	24	1607	9705	POLI	RFE	B2	0	0	0	61.54N	44.12W	AL	38B	LR	31B				
3565=WG	23	1906	9740	RUSS	BBC	WOOF	0	0	0	33.50N	57.76E	N1	118B	N2	125C				
3566=WI	14	2217	6170	????	??????????????		0	0	0	55.18N	40.18E	NO	86B	N3	148B				
3567=WI	13	1716	11700	????	??????????????	221	72	136	54.60N	39.68E	NO	88B	PS	26D	KI	27D	LR	32D	AL 30D BE 39D
												N2	132B						
3568=WI	18	1727	15425	????	??????????????		0	0	0	55.21N	36.27E	N2	137B	NO	89B				
3569=WI	20	1725	15425	????	??????????????		0	0	0	66.79N	40.02E	AN	355B	WP	353B				
3570=WI	22	1901	15340	ARM	RL	L1	190	58	141	55.12N	39.22E	U2	66B	N2	130B	N1	120B		
3571=WI	16	1456	15340	AZ	RL	L1	2985	1128	147	57.52N	26.16E	AN	OD	GI	39D	KI	24D	AL	28D
3572=WI	17	0328	15340	AZ	RL	L1	0	0	0	66.79N	40.02E	AN	355D	WP	353D				
3573=WI	21	0350	15445	AZ	RL	G11+G12	0	0	0	27.18N	32.25E	WP	348B	AN	358B				
3574=WI	16	1621	15340	GEOR	RL	L1	3042	1700	151	45.42N	33.41E	SS	41D	AN	355D	GI	37D		
3575=WI	22	1618	15340	GEOR	RL	L1	4290	578	153	1.33S	79.92E	FL	42B	BE	35B	LR	31B	AL	30B
3576=WI	17	1646	15340	GEOR	RL	L1	0	0	0	52.86N	76.23W	AL	29B	GI	44B				
3577=WI	24	2205	9009	HEBR	IBA		391	35	96	55.50N	41.73E	NE	68B	AN	358B	IT	70A	KR	67A KO 58B
3578=WI	22	1731	15485	HEBR	IBA		80	29	145	56.47N	35.08E	NO	85B	N2	138B	N1	122B	NE	65B AL 31B gi 101B
												N2	137A						
3579=WI	17	1746	15585	HEBR	IBA		1054	532	148	53.58N	35.48E	SS	43B	AN	359B	AL	27B	KI	23B
3580=WI	10	2246	6050	RUSS	RL	L5	0	0	0	56.52N	35.94E	NO	85A	N1	120A				
3581=WI	11	0116	6090	RUSS	VOA	MUN058	0	0	0	53.83N	39.76E	N3	150A	NO	90B				
3582=WI	12	1701	6105	RUSS	RL	L9	0	0	0	55.00N	39.18E	U2	67C	N3	150C				
3583=WI	9	1545	6105	RUSS	RL	L9	0	0	0	57.16N	38.01E	N3	150B	N1	115B				
3584=WI	20	2203	7130	RUSS	VOA	KAV105	0	0	0	.69S	101.92E	NO	85A	NE	85C				
3585=WI	17	2216	7130	RUSS	VOA	KAV105	693	90	85	58.64N	37.06E	NE	56B	U2	63C	ne	83B	AN	351B
3586=WI	16	0032	7220	RUSS	RL	B4	0	0	0	56.56N	40.25E	NO	82A	NE	64B				
3587=WI	18	2018	7230	RUSS	BBC	MASIRAH	0	0	0	55.39N	34.39E	NO	90C	NE	68B				
3588=WI	19	0203	7240	RUSS	VOA	MUN058	0	0	0	7.30N	114.62E	NE	70B	NO	70B				
3589=WI	21	0116	7240	RUSS	VOA	MUN058	86	40	145	55.15N	36.87E	N2	136A	NE	69B	NE	68B		
3590=WI	29	2145	9555	RUSS	RL	HC	0	0	0	65.66N	10.25E	LV	19B	DS	22B				
3591=WI	29	2031	9625	RUSS	VOA	KAV051	379	85	106	54.08N	42.58E	U2	67C	NO	87B	BL	75D	KR	70D KO 60C
3592=WI	24	0316	9650	RUSS	DW		104	59	122	53.77N	35.74E	IT	87C	kr	50C	KO	60C	NO	90B N3 158B
3593=WI	23	0330	9650	RUSS	DW		1076	62	103	55.10N	51.36E	IT	70A	KO	60C	BL	69B	KR	60C
3594=WI	25	0310	9650	RUSS	DW		0	0	0	54.28N	43.66E	KO	60B	KR	68B				
3595=WI	27	2201	9670	RUSS	VOA	KAV051	0	0	0	53.05N	19.82E	NE	79B	NO	120B				
3596=WI	26	2201	9670	RUSS	VOA	KAV051	197	47	96	55.04N	36.83E	U2	60C	NE	68B	NO	90B	n0	115B IT 74D KO 59B



3650=WI	23	1839	17770	RUSS	RL	P4	1870	189	153	51.59N	43.37E	DS	18B	SS	36B	N2	130C											
3651=WI	26	2001	17770	RUSS	RL	P4	1019	130	121	49.56S	174.46E	U2	62B	KR	81B	ko	56B	NE	66B									
3652=WI	26	1531	17795	RUSS	DW		0	0	0	0.00N	0.00E	bk	57A	b1	71A													
3653=WI	28	1531	17815	RUSS	IBA		167	54	141	56.03N	37.54E	U2	64B	n2	85B	N1	120B	N2	132B	PS	37B	BE	36B					
3654=WI	26	1116	17865	RUSS	VOA	KAV095	0	0	0	0.00N	0.00E	u2	67B	ne	102B													
3655=WI	28	1231	17865	RUSS	VOA	KAV095	0	0	0	56.52N	35.94E	NO	85B	N1	120B													
3656=WI	27	0046	9725	TB	RL	B8	0	0	0	64.47N	33.77E	FE	11B	AN	358B													
3657=WI	24	0116	9725	TB	RL	B8	0	0	0	54.73N	40.92E	NE	69B	AN	353B													
3658=WI	16	1624	15370	TB	RL	HA	1344	89	92	55.39N	34.60E	AN	358D	BE	38D	GI	28D	KI	20D	NE	68B							
3659=WI	9	0131	11970	TI	RL	HD	0	0	0	0.00N	0.00E	n2	140C	be	28D													
3660=WI	22	1549	15370	TI	RL	HA	0	0	0	56.22N	35.96E	NO	86A	N2	136B													
3661=WI	17	1520	15370	TI	RL	HA	0	0	0	55.39N	34.39E	NE	68B	NO	90B													
3662=WI	24	0325	9660	UKR	RL	L3	0	0	0	55.07N	34.94E	NE	69B	N3	158A													
3663=WI	25	0434	9660	UKR	RL	L3	201	42	150	58.52N	34.88E	N3	156B	N1	118B	N2	131B											
3664=WI	15	0217	11885	UKR	RL	G3	0	0	0	65.72N	10.96W	BE	35D	LR	32D													
3665=WI	16	1647	15380	UKR	RL	P3	550	79	107	54.40N	44.24E	NE	69B	NE	69B	NO	85B											
3666=WI	13	1331	11705	UZBE	VOA	KAV051	0	0	0	56.22N	38.53E	U2	64B	N3	150B													
3667=WK	10	1816	11710	RUSS	VOA	WOF066	4751	244	113	55.03N	74.38E	IT	61C	BL	60C	KO	55C	KR	58C									
3668=WL	23	2242	9765	????	????????????		927	313	53	46.10N	137.47E	LV	313B	AN	284B	FE	310B	WP	312B									
3669=WL	19	1920	15165	????	????????????		0	0	0	57.93N	171.68E	FE	309B	LV	310B													
3670=WL	16	0816	15310	????	????????????		2332	1096	72	48.01N	144.12E	FE	305D	GI	327D	WP	315D											
3671=WL	20	0854	15315	????	????????????		5032	368	42	42.17N	129.52E	KI	325B	LV	315B	AN	289B	DS	319B									
3672=WL	16	0710	15330	????	????????????		1893	708	56	47.75N	144.47E	WP	314D	LV	315D	AN	280D	DS	318D									
3673=WL	20	0811	15330	????	????????????		833	277	54	45.90N	141.17E	WP	311B	DS	319B	AN	280B	LV	315B	KI	328B	FE	306B					
3674=WL	20	1016	15170	CZEC	RFE	G4B	818	278	55	49.18N	141.91E	AN	284B	DS	319B	KI	327B	LV	315B	WP	316B							
3675=WL	29	2036	9625	RUSS	VOA	KAV051	1357	521	79	47.02N	139.89E	DS	322B	WP	313B	KI	322B											
3676=WL	25	2110	9625	RUSS	VOA	KAV051	4426	356	65	53.35N	156.18E	DS	319B	FE	308B	LV	315B											
3677=WL	25	2249	9670	RUSS	VOA	KAV051	0	0	0	50.60N	144.26E	WP	318B	AN	284B													
3678=WL	11	2057	11750	RUSS	DW		0	0	0	49.56N	136.94E	AN	288D	WP	316D													
3679=WL	16	1114	15120	RUSS	VOA	KAV051	7231	715	49	49.34N	144.85E	DS	321D	LV	313D	AN	282D											
3680=WL	16	0752	15325	RUSS	VOA	PHT021	3809	347	61	56.35N	162.57E	AN	280D	DS	323D	FE	311D	KI	324D	LV	315D							
3681=WL	20	1924	15390	RUSS	BBC	CYPRUS	1013	390	70	46.50N	143.36E	WP	313B	LV	311B	DS	316B	FE	308B									
3682=WL	17	0915	15410	RUSS	VOA	PHT349	0	0	0	41.49N	133.77E	FE	308B	PS	332B													
3683=WL	18	0711	15410	RUSS	VOA	PHT349	799	274	55	50.67N	142.91E	AN	286B	WP	318B	FE	308B											
3684=WL	25	0831	17740	RUSS	VOA	PHT349	0	0	0	48.68N	142.51E	AN	283B	LV	314B													
3685=WM	26	0622	17750	????	????????????		0	0	0	52.60N	49.56E	N2	120B	NO	85B													
3686=WM	15	2101	11970	BR	RL	P2	524	74	122	52.29N	51.46E	U2	74B	U2	74B	NO	82A	NI	110C									
3687=WM	9	2031	11970	EST	RFE	P2	2830	247	129	45.37N	64.45E	U2	74B	NO	83B	BE	41D											
3688=WM	28	1904	9505	LITH	RFE	HB	0	0	0	40.89N	71.33E	NO	84B	WP	324B													
3689=WM	10	1916	11970	LITH	RFE	P2	0	0	0	15.22N	92.08E	U2	79B	NO	85B													
3690=WM	17	2001	7220	RUSS	RL	B4	0	0	0	53.15N	9.62E	U2	75C	NE	70B													
3691=WM	18	1916	7230	RUSS	BBC	MASIRAH	400	96	121	47.65N	62.36E	IT	81B	BL	85C	KO	68A	KR	77C	NO	88B	N2	105B					
												NE	74B															
3692=WM	22	1948	7230	RUSS	BBC	MASIRAH	0	0	0	51.86N	54.10E	NO	83B	N2	115A													
3693=WM	21	1933	7230	RUSS	BBC	MASIRAH	1072	155	128	43.62N	66.94E	N2	108C	NE	76B	U2	74A	kr	110B	IT	80B	ko	55B					
3694=WM	25	2135	9555	RUSS	RL	HC	791	115	130	48.37N	60.85E	NE	70B	SS	33B	NO	85A	N2	105C									
3695=WM	28	2331	9555	RUSS	RL	HC	933	187	126	46.61N	58.63E	N1	106C	U2	75B	NE	77B											
3696=WM	24	2236	9555	RUSS	RL	HC	326	100	128	53.61N	47.03E	SS	34B	N1	110B	NE	70B											
3697=WM	29	0201	9725	RUSS	RL	B8	1168	221	135	42.77N	66.98E	N1	101B	U2	75B	NE	77B											
3698=WM	25	0124	9770	RUSS	VOA	TAN044	261	26	95	52.78N	28.56E	KR	80B	BL	83A	IT	82B	KO	60C									
3699=WM	15	1501	11780	RUSS	BBC	WOOF	2238	399	140	42.05N	66.74E	U2	75C	N1	102C	SS	39D	BE	29D									
3700=WM	11	1531	11780	RUSS	BBC	WOOF	1896	121	131	36.60N	77.30E	U2	73B	NO	83B	BE	32D	IT	81A	BL	82A	KO	77A					
												KR	80A															
3701=WM	13	1701	11780	RUSS	BBC	WOOF	542	133	145	46.85N	60.88E	U2	73B	NO	85B	N3	125B	N2	112B	BE	34D	AN	330D					
3702=WM	14	1531	11780	RUSS	BBC	WOOF	800	103	139	45.75N	65.35E	U2	73B	N1	100A	NO	83A											
3703=WM	9	1726	11780	RUSS	BBC	WOOF	0	0	0	48.31N	61.56E	NO	83A	N2	110B													
3704=WM	14	1731	11780	RUSS	BBC	WOOF	1880	139	131	46.16N	62.79E	U2	72B	NO	85A	SS	34D	FE	349D	BE	38D							
3705=WM	24	0647	17725	RUSS	RL	G2B	0	0	0	45.06N	61.58E	N3	125B	NE	78B													
3706=WM	28	0016	9725	TB	RL	B8	79	18	77	53.13N	15.77E	BL	80B	KR	62B	IT	84B	NE	63C	SS	34B							
3707=WM	28	0101	9725	TB	RL	B8	0	0	0	52.96N	7.50E	U2	75C	NE	63C													

3708=WM	25	0118	9725 TB	RL	B8	261	26	95	52.78N	28.56E	BL 83A	KO	60C	KR	80B	IT	82B					
3709=WM	23	0008	9725 TB	RL	B8	0	0	0	40.71N	67.85E	NO 87B	AN	331B									
3710=WM	25	0031	9725 TB	RL	B8	776	204	142	40.37N	72.13E	NO 84B	U2	76B	N1	97B	N3	113C	AN	331B	SS	34B	
											NE 77B											
3711=WM	13	2216	11970 TI	RL	HD	16094	522	141	8.42S	116.40E	KR 80A	IT	80B	BL	85C	KO	82B					
3712=WM	28	1920	9565 UKR	RL	HA	0	0	0	34.35N	74.79E	N2 106B	NO	87B									
3713=WM	24	2151	9565 UKR	RL	HA	408	72	129	52.94N	52.28E	NO 83A	N1	101B	N2	120C							
3714=WQ	15	1546	5985 HUNG	RFE	B9B	179	27	127	45.29N	28.51E	KO 96B	BL	120A	KR	100B	IT	119B					
3715=WQ	9	0801	5985 HUNG	RFE	B1	0	0	0	50.63N	17.92E	U2 90C	NO	134B									
3716=WQ	16	0646	7115 HUNG	RFE	B9A	0	0	0	0.00N	0.00E	B1 120A	ne	72B	kr	89B	ko	76B					
3717=WQ	18	0810	7115 HUNG	RFE	B9A	88	26	92	49.09N	20.30E	BL 125C	IT	120D	KR	100B	KO	75A					
3718=WQ	24	0846	9725 HUNG	RFE	B8	88	18	122	48.49N	22.38E	KO 80B	BL	120A	KR	100A	IT	120A	ne	91B			
3719=WQ	26	0820	9725 HUNG	RFE	B8	66	21	112	48.33N	22.84E	KR 100B	KO	81A	BL	118B	IT	119A					
3720=WQ	25	1046	9725 HUNG	RFE	B8	125	30	130	49.27N	23.35E	NE 94B	NO	125A	U2	95B							
3721=WQ	25	1231	9725 HUNG	RFE	B8	2386	242	107	49.88S	158.08E	BK 94A	U2	95B	NO	90C	NE	94B					
3722=WQ	26	1146	9725 HUNG	RFE	B8	73	19	113	48.14N	24.10E	KO 84A	NE	94B	IT	118A	BL	118B	U2	93A			
3723=WQ	25	1446	9725 HUNG	RFE	B8	0	0	0	52.23S	174.62E	U2 96A	NE	94B									
3724=WQ	24	0931	9725 HUNG	RFE	B8	0	0	0	0.00N	0.00E	bk 93A	ne	84B	n3	180B							
3725=WQ	11	1501	11770 HUNG	RFE	G3B	0	0	0	49.10N	24.47E	U2 91B	BE	49D									
3726=WQ	14	0532	11895 HUNG	RFE	G5	0	0	0	57.47N	30.75E	NO 85B	N3	165B									
3727=WR	25	1550	9770	????	????????????	1745	95	73	61.23N	169.78E	FE 315B	AN	288B	DS	324B	LV	323B					
3728=WR	27	1635	9770 RUSS	BBC	CYPRUS	2488	66	94	64.75N	176.96W	LV 324B	FE	317B	DS	329B	AN	299B					
3729=WR	24	1710	9770 RUSS	BBC	CYPRUS	1139	337	51	51.65N	128.96E	AN 297B	FE	315B	WP	318B							
3730=WT	19	0028	7155 RUSS	RL	G2B	0	0	0	4.62N	95.33E	AN 294B	SS	40B									
3731=WT	12	1205	11705 RUSS	VOA	KAV051	1318	321	65	60.30N	150.47E	AN 294D	WP	328D	LV	323D	AN	294D	FE	327D	WP	332D	
											KI 332D											
3732=XD	21	0401	15355 RUSS	RL	G15	516	50	112	49.26N	43.52E	U2 84B	NE	79B	NO	95B	KR	81A	BL	87B			
3733=XI	22	0331	7325 BULG	BBC	WOOF	108	17	101	50.73N	30.20E	BK 83A	U2	82B	NE	85B	IT	92A	KO	69A	KR	87A	
											BL 96C											
3734=XI	19	0444	15355 RUSS	RL	G15	1202	104	110	48.03N	47.93E	KR 78B	KO	76B	NE	83B							
3735=XI	18	2031	15485 RUSS	IBA		0	0	0	0.00N	0.00E	u2 85B	ne	68B	ne	68B							
3736=XN	12	2218	11915 POLI	VOA	TAN044	0	0	0	56.94N	22.04E	BE 42D	GI	30D									
3737=XN	24	0649	17760 RUSS	RL	L4	0	0	0	51.42N	30.39E	NO 107A	N2	152B									
3738=XN	13	0139	11840 UKR	VOA	TAN044	4097	953	165	66.98N	28.21E	AN 1D	DS	16D	FE	12D	LV	12D					
3739=XR	11	1851	11755	????	????????????	1626	217	89	66.50N	170.52E	AN 308D	DS	325D	FE	311D	WP	333D					
3740=XR	12	1849	11750 BULG	DW		0	0	0	48.05N	118.75E	DS 330D	WP	315D									
3741=XR	24	1127	9725 HUNG	RFE	B8	0	0	0	62.15N	129.31E	AN 308B	WP	330B									
3742=XR	23	2037	9435 RUSS	IBA		0	0	0	61.72N	134.45E	LV 329B	AN	305B									
3743=XR	14	1411	11805 RUSS	VOA	KAV051	1494	394	66	58.98N	158.58E	AN 287D	DS	342D	WP	329D							
3744=XR	10	1814	11805 RUSS	VOA	KAV051	0	0	0	43.92N	103.00E	AN 307D	WP	314D									
3745=XR	14	1426	11835 RUSS	VOA	MUN058	3082	718	57	60.54N	127.98E	AN 306D	WP	328D	LV	332D							
3746=XR	14	2235	11855 RUSS	RL	P2	3093	738	53	59.45N	125.69E	FE 327D	WP	327D	AN	306D							
3747=XR	12	2324	11915 RUSS	RL	G8	2926	617	57	62.23N	129.59E	FE 326D	WP	329D	LV	338D	AN	307D					
3748=XR	12	0920	11965 RUSS	VOA	PHT021	2357	194	97	67.47N	176.14E	AN 308D	FL	333D	AL	334D							
3749=XR	18	0340	15115 RUSS	RL	G7	564	67	104	66.59N	175.79W	FE 327B	AN	306B	WP	351B							
3750=XR	17	0447	15355 RUSS	RL	G15	1276	637	170	2.98N	89.52E	GI 336B	SS	43B	PS	22B	FE	328B					
3751=XR	24	1842	17710 RUSS	IBA		0	0	0	64.91N	139.63E	AN 308B	DS	335B									
3752=XR	26	1435	17770 RUSS	RL	P4	0	0	0	36.66N	98.72E	FE 328B	AN	306B									
3753=XR	25	0605	17895 RUSS	RL	P5	0	0	0	60.41N	122.66E	AN 309B	WP	328B									
3754=XR	25	0750	17895 RUSS	RL	P5	0	0	0	64.47N	140.24E	KI 338B	AN	307B									
3755=XU	21	1331	7245 LAT	VOA	MUN058	117	29	108	55.63N	23.95E	U2 65C	NO	100A	NE	66B							
3756=XU	27	1606	9635 RUSS	BBC	WOOF	0	0	0	55.12N	19.99E	NE 66B	KO	38B									
3757=XU	22	1206	15435 RUSS	BBC	CYPRUS	0	0	0	56.50N	22.14E	NE 60B	KR	55B									
3758=XW	22	1617	15340 GEOR	RL	L1	715	88	151	43.19N	45.73E	NO 105B	N1	125A	N2	135B							
3759=XW	21	1646	15340 GEOR	RL	L1	0	0	0	46.24N	38.65E	NE 92B	NO	108B									
3760=Z1	29	0431	9680 RUSS	RL	L2	0	0	0	53.90S	161.83E	U2 107B	NE	106B									
3761=Z1	18	0905	15380 RUSS	RL	P3+P4	0	0	0	37.38N	32.49E	AN 358B	BE	55B									
3762=Z3	18	2216	15260	????	????????????	0	0	0	4.15S	72.82E	PS 40B	BE	51B									
3763=Z3	25	0752	17830	????	????????????	0	0	0	49.84N	13.43E	NO 150A	N1	178A									
3764=Z3	9	1101	5995 CZECH	DW		120	40	123	49.22N	16.13E	U2 99B	U2	99B	NO	143B							

3765=Z3	10	1046	5995	CZEC	DW	75	40	158	49.65N	14.92E	N2 183A	N0 143B	U2 100C	U2 100C		
3766=Z3	15	1116	5995	CZEC	DW	0	0	0	50.61N	14.63E	N0 144B	N2 183A				
3767=Z3	19	1101	7150	CZEC	DW	0	0	0	52.47S	175.40E	U2 101C	NE 96B				
3768=Z3	20	1033	7150	CZEC	DW	0	0	0	50.66N	15.83E	N0 140B	NE 99B				
3769=Z3	18	1046	7150	CZEC	DW	104	37	119	50.51N	14.60E	U2 98B	NE 98B	N0 144B			
3770=ZA	17	1235	15120	RUSS	VOA KAV051	0	0	0	47.98N	52.31E	NE 79B	N0 91B				
3771=ZA	17	2101	15355	RUSS	RL G7	0	0	0	54.36N	20.68E	U2 71B	NE 71B				
3772=ZA	29	1139	17855	RUSS	VOA WOF070	8276	434	112	60.65N	13.91E	PS 33B	LR 35B	FL 32B			
3773=ZD	21	2121	15390	????	??????????????	2804	639	169	30.99N	40.92E	AN 356B	FE 11B	GI 40B	LV 6B		
3774=ZD	17	1745	15585	HEBR	IBA	0	0	0	65.01N	31.91E	AN 359B	AL 25B				
3775=ZD	14	1524	11845	RUSS	BBC CYPRUS	0	0	0	94S	72.40E	LR 44D	KI 21D				
3776=ZD	19	1221	15205	RUSS	BBC WOOF	2324	747	150	45.35N	52.97E	SS 38B	GI 20B	DS 12B			
3777=ZD	22	2253	15205	RUSS	RL G6	1766	329	178	74.83N	40.52E	ds 327B	LV 4B	FE 6B	AN 356B		
3778=ZD	18	1605	15225	RUSS	BBC WOOF	0	0	0	69.82N	38.76E	AN 356B	GI 15B				
3779=ZD	21	1709	15225	RUSS	BBC WOOF	1030	13	104	68.86N	21.75E	AL 20B	BE 42B	LV 5B	N2 99A		
3780=ZD	19	1458	15235	RUSS	VOA WOF045	0	0	0	51.95N	34.67E	KI 27B	BE 42B				
3781=ZD	21	1606	15245	RUSS	BBC WOOF	252	106	80	61.48N	37.63E	DS 12B	NE 49B	AN 355B	BE 44B	AL 21B	FE 8B
											DS 12B	AN 355B	LV 4B	GI 17B	AL 19B	BE 45B
											GI 15B	PS 27B				
3782=ZD	16	2350	15380	RUSS	RL G9+G10	4787	1417	177	37.20N	65.13E	AL 22D	PS 18D	AN 326D	DS 11D	LV 5D	
3783=ZD	21	1927	15390	RUSS	BBC CYPRUS	0	0	0	10.96S	82.51E	AL 21B	PS 30B				
3784=ZD	17	1523	15405	RUSS	DW	0	0	0	0.00N	0.00E	be 28B	fl 31B				
3785=ZD	21	1635	15405	RUSS	DW	1710	339	0	72.41N	41.17E	AN 355B	FE 7B	LV 4B	WP 355B		
3786=ZD	23	1811	17710	RUSS	IBA	633	297	137	70.03N	31.81E	DS 14B	AL 20B	AN 359B	BE 25B	PS 20B	LR 22B
3787=ZD	26	2008	17770	RUSS	RL P4	0	0	0	50.12N	35.82E	PS 34B	AN 356B				
3788=ZD	26	1446	17780	RUSS	VOA WOF070	0	0	0	13.49N	88.26E	N2 102C	SS 40B				
3789=ZD	26	1535	17795	RUSS	DW	1107	426	160	58.75N	38.79E	FL 29B	FE 5B	AL 28B	AN 357B	DS 16B	
3790=ZK	16	0752	15115	POLI	RFE G3	0	0	0	47.32N	60.73E	N0 85A	N1 103B				
3791=ZK	11	2056	11750	RUSS	DW	0	0	0	51.09N	139.41E	AN 288D	WP 318D				
3792=ZM	14	2016	6090	????	??????????????	0	0	0	23.84N	55.42E	N0 113B	N3 142B				
3793=ZM	24	0219	9550	????	??????????????	1148	471	138	49.96N	26.73E	FL 37B	GI 33B	AN 2B	BE 48B		
3794=ZM	28	1620	9795	????	??????????????	0	0	0	47.49N	34.20E	SS 42B	BE 46B				
3795=ZM	20	0139	7180	ARM	RL L3	9460	395	115	55.36N	15.38E	FL 37B	LR 42B	BE 45B			
3796=ZM	16	0110	7180	ARM	RL L3	31091	1044	118	57.69N	21.94E	BE 41D	FL 33D	LR 37D			
3797=ZM	17	0037	7180	AZ	RL L3	0	0	0	53.76N	30.79E	FL 34D	BE 42D				
3798=ZM	16	0019	7180	AZ	RL L3	886	99	140	42.52N	46.33E	BE 41D	LR 36D	SS 39D	FL 33D	N0 105A	N1 125B
3799=ZM	9	0305	11875	AZ	RL L6	2082	74	96	52.89N	24.16E	BE 49D	FL 33D	FE 18D	U2 77B		
3800=ZM	9	1516	11855	DARI	VOA KAV095	114	19	108	49.42N	33.09E	KR 87A	IT 98A	BL 95A	KO 75A	N0 109B	BE 45D
											PS 40D					
3801=ZM	18	0830	21650	DARI	DW	207	28	101	49.63N	33.86E	BL 95B	KO 74A	KR 85A			
3802=ZM	16	0831	21650	DARI	DW	2847	135	135	28.56N	74.38E	U2 83A	n0 110B	U2 83A	IT 92A	KO 88A	KR 86A
											NE 81B					
3803=ZM	21	0801	21650	DARI	DW	141	20	106	50.52N	30.51E	bk 107B	U2 84A	N0 105B	KO 67B	BL 95A	IT 91B
											KR 85A					
3804=ZM	14	0227	11875	GEOR	RL L6	21860	1025	114	58.20N	16.70E	PS 35D	BE 41D	FL 35D			
3805=ZM	12	1515	11855	PASH	VOA KAV095	188	25	109	48.43N	36.07E	KR 86A	IT 95B	BL 98A	KO 78A		
3806=ZM	18	2350	7165	RUSS	RL B1	0	0	0	55.61N	6.90E	BE 48B	AL 42B				
3807=ZM	16	2314	7165	RUSS	RL B1	0	0	0	53.76N	30.79E	BE 42D	FL 34D				
3808=ZM	24	0201	9555	RUSS	RL G3B	336	107	129	49.24N	44.59E	U2 75C	N1 120B	NE 82B			
3809=ZM	9	0235	11725	RUSS	RL G4	2911	1062	133	48.08N	27.35E	AN 1D	BE 54D	FL 36D	LR 41D	PS 38D	
3810=ZM	15	0037	11725	RUSS	RL G4	0	0	0	61.87N	24.52W	BE 40D	FL 30D				
3811=ZM	12	0248	11725	RUSS	RL G4	7372	1132	120	57.67N	19.84E	BE 41D	DS 25D	FL 35D			
3812=ZM	22	0535	15130	RUSS	RL P2	270	46	95	50.84N	28.87E	KO 70B	BL 85C	KR 86B			
3813=ZM	19	0546	15130	RUSS	RL P2	0	0	0	13.71N	111.19E	NE 69B	KO 72B				
3814=ZM	17	1911	15290	RUSS	RL P1	1409	473	173	65.05N	33.32E	AN 358B	GI 20B	WP 356B			
3815=ZM	17	0910	15340	RUSS	RL L1	5194	277	97	57.28N	8.29W	FL 39B	BE 47B	PS 42B			
3816=ZM	29	1705	17770	RUSS	RL P4	1639	485	105	60.34N	5.70E	PS 37B	SS 30B	DS 25B			
3817=ZM	26	1729	17770	RUSS	RL P4	4931	493	128	51.06N	25.44E	KI 31B	AL 38B	PS 40B	FL 37B		
3818=ZM	23	1835	17770	RUSS	RL P4	4749	444	122	53.65N	21.70E	BE 44B	AL 39B	FL 39B			
3819=ZM	26	1543	17770	RUSS	RL P4	1272	485	146	49.43N	32.27E	BE 45B	DS 26B	AN 358B	AL 36B		

3820=ZM	24	0620	17770	RUSS	RL	P6	669	79	131	43.92N	44.45E	NE	91B	NE	93B	NO	105A						
3821=ZM	25	0610	17895	RUSS	RL	P5	0	0	0	42.94S	150.37E	KR	85A	NE	82B								
3822=ZM	29	0531	17895	RUSS	RL	P5	0	0	0	0.00N	0.00E	u2	84B	ne	79B								
3823=ZM	23	2316	9660	TI	RL	HA	0	0	0	52.29N	5.70E	U2	83A	NE	83B								
3824=ZM	12	2322	11885	TI	RL	P3	14803	1857	152	29.66N	58.94E	BE	41D	GI	20D	PS	36D						
3825=ZM	14	2324	11885	TI	RL	P3	9211	1306	130	48.54N	40.47E	SS	39D	PS	33D	BE	41D	FL	37D				
3826=ZM	11	2351	11885	TI	RL	P3	1439	158	99	51.00N	21.66E	AN	8D	BE	41D	DS	24D	FL	41D	GI	41D	LR	42D
												PS	38D	SS	39D	KR	87D						
3827=ZM	16	1344	15370	TI	RL	HA	0	0	0	49.17N	34.51E	FE	15D	GI	29D								
3828=ZM	17	1316	15370	TI	RL	HA	141	23	99	50.49N	30.97E	NE	84B	n0	190B	U2	79C	NE	82B	KR	85A	IT	97B
												KO	71A										
3829=ZM	26	1231	17750	TI	RL	B3	0	0	0	37.63N	59.70E	U2	85B	FL	32B								
3830=ZM	25	1140	17750	TI	RL	B3	226	38	103	50.14N	30.80E	AL	39B	KR	86B	IT	97B	KO	72B	KR	85B		
3831=ZM	29	1035	17750	TI	RL	B3	418	31	69	48.58N	12.29W	NE	79B	LR	40B	BE	44B	KR	84A				
3832=ZM	28	1135	17750	TI	RL	B3	191	54	140	52.75N	27.43E	SS	39B	NO	107B	N1	144B						
3833=ZM	24	1212	17750	TI	RL	B3	214	43	98	50.58N	27.41E	BL	98B	KR	83C	KO	70B						
3834=ZM	15	0244	11730	UAE	????		7148	958	114	56.24N	20.39E	BE	40D	FL	30D	LR	44D	SS	39D				
3835=ZM	27	0446	9660	UKR	RL	L3	0	0	0	30.66N	98.02E	KO	69B	NE	68B								
3836=ZM	25	0445	9660	UKR	RL	L3	0	0	0	50.68N	31.28E	KR	83C	KO	70C								
3837=ZM	24	0401	9660	UKR	RL	L3	634	84	115	48.14N	52.73E	BK	80A	NO	83B	KR	85C	KO	68B	GI	8B	FL	35B
												an	4B										
3838=ZT	18	1905	7220	RUSS	RL	L2	0	0	0	46.16N	137.58E	WP	312B	AN	284B								
3839=ZT	18	1540	7220	RUSS	RL	L2	825	262	55	51.77N	141.93E	WP	319B	AN	287B	DS	324B	FE	312B				
3840=ZT	19	1514	7220	RUSS	RL	L2	887	357	73	52.02N	147.26E	DS	322B	FE	309B	WP	320B	LV	317B				
3841=ZT	22	1014	7220	RUSS	RL	L2	2499	229	53	54.59N	144.61E	LV	319B	FE	311B	AL	332B	AN	290B				
3842=ZT	20	1443	7220	RUSS	RL	L2	910	406	77	51.68N	147.43E	DS	318B	WP	320B	FE	311B						
3843=ZT	19	1023	7220	RUSS	RL	L2	1782	195	86	56.95N	175.79W	LV	317B	DS	319B	FE	305B						
3844=ZT	17	1111	7220	RUSS	RL	L2	641	188	60	54.64N	151.45E	WP	325B	LV	315B	GI	321B	AN	287B	DS	317B	FE	308B
3845=ZT	21	1340	7220	RUSS	RL	L2	733	354	83	55.70N	156.05E	FE	310B	WP	327B	DS	324B						
3846=ZT	21	1840	7220	RUSS	RL	L2	0	0	0	55.51N	154.55E	AN	284B	FE	311B								
3847=ZT	19	1711	7220	RUSS	RL	L2	705	241	57	50.57N	147.05E	FE	307B	LV	317B	AN	282B	WP	318B				
3848=ZT	18	1840	7220	RUSS	RL	L2	840	271	54	48.71N	140.83E	WP	316B	LV	311B	AN	285B	DS	315B	FE	313B		
3849=ZT	18	1640	7220	RUSS	RL	L2	928	296	52	48.72N	136.07E	AN	287B	FE	312B	FL	340B	WP	315B	LV	318B		
3850=ZT	16	1907	7220	RUSS	RL	L2	0	0	0	47.07N	134.74E	WP	313D	AN	287D								
3851=ZT	19	1423	7220	RUSS	RL	L2	756	322	78	54.28N	153.75E	WP	324B	LV	320B	DS	321B	FE	308B				
3852=ZT	21	1205	7220	RUSS	RL	L2	1069	402	67	49.39N	139.66E	FE	311B	WP	316B	LV	315B	DS	323B				
3853=ZT	18	1340	7220	RUSS	RL	L2	968	288	53	49.54N	135.64E	LV	319B	DS	318B	FE	312B	WP	316B	AN	290B		
3854=ZT	13	0324	11760	RUSS	VOA	TAN044	0	0	0	52.73N	151.05E	WP	322D	AN	282D								
3855=ZT	12	0605	11885	RUSS	RL	P4	2337	1030	77	49.38N	147.07E	DS	318D	FE	308D	WP	317D						
3856=ZT	11	0737	11965	RUSS	VOA	PHT021	1856	636	55	49.36N	145.24E	AN	283D	DS	318D	FE	309D	WP	317D	KI	315D		
3857=ZT	12	0912	11965	RUSS	VOA	PHT021	0	0	0	47.97N	145.96E	DS	318D	WP	315D								
3858=ZT	10	0938	11965	RUSS	VOA	PHT021	13229	1104	41	41.66N	128.29E	AN	287D	DS	321D	LV	314D						
3859=ZT	14	0905	11965	RUSS	VOA	PHT021	0	0	0	51.16N	146.64E	AN	283D	LV	315D								
3860=ZT	13	0835	11965	RUSS	VOA	PHT021	0	0	0	55.24N	155.34E	LV	317D	AN	283D								
3861=ZT	10	0808	11965	RUSS	VOA	PHT021	5579	461	58	55.86N	155.70E	AN	284D	DS	319D	LV	319D						
3862=ZT	15	0414	11885	UKR	RL	P4	2052	884	76	48.09N	140.85E	WP	315D	FE	308D	FE	311D	WP	314D				
3863=ZT	13	0505	11885	UKR	RL	P4	1537	493	59	53.07N	152.34E	AN	282D	DS	320D	FE	308D	WP	323D	LV	315D		
3864=ZT	14	0513	11885	UKR	RL	P4	2047	738	54	48.46N	141.85E	AN	283D	FE	310D	WP	315D						
3865=ZT	9	0527	11885	UKR	RL	P4	22430	225	37	25.61S	83.70E	AN	290D	ds	320D	FE	308D	KI	322D				



APPENDIX B: LOCATIONS OF EMITTERS OF HARMFUL INTERFERENCE FROM THE  
COMPOSITE DATA FILE FOR JUNE 1986 AND LOCATIONS FROM  
PROCESSED HISTOGRAM DATA

127 HITS E-file=EEEE

D-file=DDDD

1=1D 51.47N 28.84E 69 21 106deg 15 35 of 40 bearings  
 248.00 249.00 250.00 251.00 252.00 253.00 254.00 255.00 256.00 257.00  
 258.00 259.00 260.00 261.00 262.00  
 BL090 IT065 KR081 KR085 BL092 N0110 N1145 BL090 IT093 KO065 KR084 U2082 N0105 U2070 U2070  
 N0108 n3158 U2086 U2086 KR084 N0106 N3155 SS039 N1140 N0110 U2080 KO067 kr091 FL030 BE045  
 ne055 N0105 NE080 N2148 U2083 N0111 U2075 ne068 BK082 ne070

2=1G 59.60N 31.47E 9 6 103deg 102 394 of 415 bearings  
 263.00 264.00 265.00 266.00 267.00 268.00 269.00 270.00 271.00 272.00  
 273.00 274.00 275.00 276.00 277.00 278.00 279.00 280.00 281.00 282.00  
 283.00 284.00 285.00 286.00 287.00 288.00 289.00 290.00 291.00 292.00  
 293.00 294.00 295.00 296.00 297.00 298.00 299.00 300.00 301.00 302.00  
 303.00 304.00 305.00 306.00 307.00 308.00 309.00 310.00 311.00 312.00  
 313.00 314.00 315.00 316.00 317.00 318.00 319.00 320.00 321.00 322.00  
 323.00 324.00 325.00 326.00 327.00 328.00 329.00 330.00 331.00 332.00  
 333.00 334.00 335.00 336.00 337.00 338.00 339.00 340.00 341.00 342.00  
 343.00 344.00 345.00 346.00 347.00 348.00 349.00 350.00 351.00 352.00  
 353.00 354.00 355.00 356.00 357.00 358.00 359.00 360.00 361.00 362.00  
 363.00 364.00

IT060 BL048 KO034 KR050 N1118 N2140 IT080 ko060 BL055 N0073 N1128 N2138 N0074 N2140 N1119  
 N2139 N0073 N0075 N1120 N2140 N3168 N0073 N1118 N2138 N1120 N2135 N0073 N0073 N1120 N2137  
 N0075 N2136 N0073 N1121 N2138 N0075 N1116 N2136 N3162 AL023 PS028 N0077 N2137 N3163 N0074  
 N3162 N1137 AL025 SS032 IT055 BL055 KO038 KR050 N0075 N2136 IT050 BL050 N0074 N3152 N2133  
 IT052 BL048 KO038 KR048 N0075 N1118 N2142 N0073 N1119 N0073 N2138 BL050 KO035 KR045 KO034  
 KR055 BL050 IT053 N3160 N0081 KR055 BL050 N3160 N0080 N0080 KO034 BL050 IT051 KR055 U2052  
 KR052 BL050 KO043 KR050 IT060 KO033 BL047 N0085 BL053 it070 KR050 U2060 KO039 KR051 BL051  
 IT054 N2141 N0075 N3164 N0077 N1119 N0090 N3164 BL050 IT053 KO035 BL047 ko076 U2063 N0080  
 N0077 u2086 N3162 N2143 KO035 U2056 N3160 N0077 KO035 BL060 IT073 N0085 N3160 N0080 KO034  
 N0078 N3159 BL048 KO052 N0079 n2165 U2056 N0075 N2140 ne068 IT055 BL049 AN358 KO032 IT053  
 BL050 N0075 BL047 IT071 KR050 N3150 BL048 KO052 BL060 ko070 IT055 ne070 N2138 bk061 NE060  
 N0080 N0087 ne069 N2141 NE066 N2142 N0084 KR050 BL050 BK052 ne070 N1120 N2150 U2060 ne070  
 U2060 NE063 N2135 N1120 U2059 SS042 AN359 U2060 N0074 N1115 N2135 U2061 N0074 N1115 N2135  
 N0075 N1118 ne070 N2139 BL048 KO039 N0074 U2060 N1119 N2138 KR050 BL050 KO037 ne069 N0074  
 N1118 N2138 KO035 IT053 KR055 BL047 NE059 BL047 KO038 KR050 IT055 ne073 N0073 N3167 U2059  
 N1120 BL048 KO040 KR050 ne069 N0075 N1115 ne070 U2060 N0075 ne068 N1120 BE037 LR038 N0072  
 N2134 ne092 N0074 N2142 U2060 BL050 KR055 KO035 IT053 N1120 U2059 BL048 IT053 N0075 BE044  
 U2059 N2140 N1120 BL054 KO044 N2140 N2137 U2056 NE068 BL055 KO036 KR052 IT053 N0075 N1124  
 N0073 U2060 NE067 BL052 N0073 IT053 KO041 BL050 U2057 KO035 IT053 BL047 KR055 N0075 U2057  
 N0075 N2140 BL050 IT052 IT053 KR055 BL047 KO035 N0075 N2137 N1120 U2055 U2055 N0074 N1120  
 N2141 ne072 KR055 KO035 BL047 IT053 BL049 KO040 ne070 IT055 KR052 U2058 N2135 N3160 AN360  
 DS012 FL027 LV016 SS034 N0075 N2135 N0073 N3160 U2053 N2135 AN001 BE037 FL027 LR035 PS012  
 SS034 N3160 N0073 N0073 N2135 U2056 N0075 N2138 DS019 FL029 GI025 LV016 AN002 FE015 IT053  
 KO050 KR050 N0070 N2137 U2064 N0075 FL029 LV017 IT052 BL050 KO040 KR062 N0075 N2135 N3160  
 IT055 BL047 KO051 U2061 N0071 N3160 N0072 N3160 N2135 N3155 U2060 U2060 IT055 BL048 KO050  
 KR048 IT051 N3155 N0073 U2058 AL022 BE036 FE019 FL023 LR038 LV016 SS031 IT057 BL055 KO050  
 N0078 N2136 N3161 N1112 U2060 N0075 AL025 AN002 DS021 FE012 FL029 LV016 SS031 N3157 N2134  
 N0075 N3162 N2134 N0073 N3162 N0070 IT056 KO040 KR055 BL048

3=4F 48.41N 57.74E 113 28 128deg 80 308 of 308 bearings  
 365.00 366.00 367.00 368.00 369.00 370.00 371.00 372.00 373.00 374.00  
 375.00 376.00 377.00 378.00 379.00 380.00 381.00 382.00 383.00 384.00  
 385.00 386.00 387.00 388.00 389.00 390.00 391.00 392.00 393.00 394.00  
 395.00 396.00 397.00 398.00 399.00 400.00 401.00 402.00 403.00 404.00  
 405.00 406.00 407.00 408.00 409.00 410.00 411.00 412.00 413.00 414.00  
 415.00 416.00 417.00 418.00 419.00 420.00 421.00 422.00 423.00 424.00  
 425.00 426.00 427.00 428.00 429.00 430.00 431.00 432.00 433.00 434.00  
 435.00 436.00 437.00 438.00 439.00 440.00 441.00 442.00 443.00 444.00  
 IT069 KR062 N0085 N0114 N3176 N0087 N3124 N2110 BE032 LR029 N0088 N2131 U2077 NE075 KO075

IT086 BL085 N0086 N2115 N1104 NE072 FE351 DS003 SS042 AN334 NE076 PS041 SS039 NE069 NE072  
 U2075 N0085 NE078 N0085 AN333 AN328 WP331 DS025 NE079 NE076 N0086 U2076 N0091 BL085 AN337  
 FE349 N0090 NE072 WP330 AN335 U2075 N0090 SS040 AN335 N0092 NE076 DS359 FE350 WP322 AN335  
 LV344 FE349 PS040 WP325 SS038 NE072 AN334 N0086 N2105 N3120 N0082 N1100 FLO28 N0085 N2107  
 N0085 BE031 FLO25 LR021 SS035 AN330 N0085 N2110 AL029 BE030 N3115 IT080 KR082 U2075 N0081  
 FLO31 BE038 IT082 BL080 KO076 KR080 N0086 N3123 N2104 PS034 AN329 BE036 N0086 IT080 BL084  
 BE032 IT065 KR062 N0085 N2100 BE041 AN331 N1100 BE031 LR029 N0111 N3125 U2078 KR081 IT084  
 BL085 KO078 LV350 FLO30 AN339 BE031 DS014 U2076 SS034 FLO30 BE031 AL025 BE030 LR041 FLO26  
 KO064 U2075 FLO30 U2075 N0084 U2077 N0088 U2075 N1095 N3133 N0085 IT100 KR082 U2077 U2077  
 SS038 N0085 N0084 N2106 N0115 AN330 AL019 BE026 K1017 FLO27 PS021 SS039 N0085 U2076 NE066  
 N0085 LR028 PS022 U2079 N0085 AL020 FLO25 PS021 SS039 GI013 NE076 BE030 DS003 LR030 N2103  
 DS002 SS038 FE351 LV355 PS018 BE030 NE066 U2078 N0075 LR032 PS023 AL029 BE031 FLO22 SS038  
 WP334 NE072 WP329 DS005 FLO27 BE030 BK077 NE060 N0086 N1103 SS037 BE031 FLO25 N2113 NE072  
 AN328 U2077 N0086 NE076 N0088 N1103 SS038 AN331 NE076 KR082 KO080 N0090 N1102 U2076 KO070  
 NE077 IT086 KR080 SS037 FLO27 N0080 NE077 NE076 BK078 N0080 NE076 N0080 U2077 NE075 IT081  
 KR082 NE064 N0085 NE076 N0086 DS001 FE351 AL016 SS040 NE076 N0085 N0090 N3119 NE076 N0088  
 NE074 N3085 N0086 U2075 NE073 BE028 SS037 N1100 U2077 NE074 NE071 N0085 WP325 AN332 NE072  
 N0085 IT084 KO078 BL090 KR081 U2078 NE069 IT084 KR082 BL091 NE058 N0080 NE076 N0089 N0085  
 U2077 KR082 NE076 BL090 KO078 IT084 N1102 GI018 FE349 AN329 BE031 SS038 AL027 U2076  
 BE030 NE073 N0088 N1095 NE076 N0085 SS037 FLO28

4=4N

56.56N 54.97E 142 36 106deg 20 61 of 61 bearings  
 445.00 446.00 447.00 448.00 449.00 450.00 451.00 452.00 453.00 454.00  
 455.00 456.00 457.00 458.00 459.00 460.00 461.00 462.00 463.00 464.00  
 N2106 N1086 N0070 U2060 N0073 N2103 BK057 N0070 KR063 IT081 KO055 BL062 NE076 KO058 BL065  
 IT065 KR061 BK055 NE070 NE061 NE062 U2058 NE069 BK058 N0078 KO065 BL065 IT063 KR060 KG055  
 U2059 NE060 NE065 N0075 U2059 N0073 N3128 NE074 N0068 NE064 U2060 U2059 N0068 NE059 IT065  
 KR058 BL062 N3115 NE074 BK060 U2057 BL063 KR060 NE059 KO055 BK059 U2057 NE058 IT066 BL070  
 KR062

5=66

31.83N 117.29E 499 150 45deg 71 289 of 289 bearings  
 466.00 467.00 468.00 469.00 470.00 471.00 472.00 473.00 474.00 475.00  
 476.00 477.00 478.00 479.00 480.00 481.00 482.00 483.00 484.00 485.00  
 486.00 487.00 488.00 489.00 490.00 491.00 492.00 493.00 494.00 495.00  
 496.00 497.00 498.00 499.00 500.00 501.00 502.00 503.00 504.00 505.00  
 506.00 507.00 508.00 509.00 510.00 511.00 512.00 513.00 514.00 515.00  
 516.00 517.00 518.00 519.00 520.00 521.00 522.00 523.00 524.00 525.00  
 526.00 527.00 528.00 529.00 530.00 531.00 532.00 533.00 534.00 535.00  
 536.00  
 FE306 WP290 LV308 AN285 DS310 AN282 FE299 WP290 WP290 LV305 AN284 FE300 AN284 DS308 FE309  
 WP290 LV305 LV311 AN286 DS321 WP290 FE310 AN276 WP294 FE306 WP316 DS321 LV317 DS318 FE306  
 WP293 AN287 LV314 DS317 FE311 WP299 AN287 LV316 WP299 LV320 FE311 DS327 AN288 WP294 LV316  
 AN288 DS319 FE308 LV311 DS321 K1328 WP300 WP299 AN291 LV314 DS318 FE311 FE313 WP293 LV310  
 DS321 DS320 AN289 WP300 LV312 FE305 DS316 FE311 WP296 LV316 WP300 AN288 DS318 FE303 WP298  
 LV312 WP295 LV314 DS313 FE327 DS327 LV315 WP294 AN295 LV321 WP300 DS324 LV307 DS316 AN300  
 FE307 FE347 DS318 WP297 LV312 FE312 GI331 WP300 LV323 DS321 FE317 DS326 WP304 LV325 AN287  
 WP297 LV310 WP299 LV321 AN297 AN288 DS316 LV310 FE308 WP294 WP294 GI330 AN286 LV311 LV311  
 WP289 DS316 FE310 AN289 AN308 DS320 FE321 WP293 K1327 LV314 AN286 DS315 FE309 WP293 LV310  
 AN288 DS318 FE309 WP293 LV312 FE306 AN286 WP292 LV311 DS315 AN287 DS318 FE305 WP295 LV311  
 LV311 DS318 WP290 FE308 WP292 LV311 AN286 AN286 FE307 WP294 LV311 DS322 FE307 WP293 LV311  
 AN286 AN284 WP292 FE308 LV311 FE309 AN285 WP291 DS311 AN284 LV311 WP295 FE306 DS310 FE308  
 WP294 LV308 AN285 WP293 LV310 AN286 FE307 AN285 LV313 DS326 LV318 FE315 LV307 AN297 FE315  
 WP320 LV313 DS328 AN289 DS320 FE307 WP299 FE306 WP299 LV313 PS313 AN287 DS318 WP295 AN284  
 DS315 FE308 LV311 GI318 DS320 FE303 LV317 WP294 WP303 DS317 FE306 DS320 LV314 FE311 WP296  
 LV311 FE312 WP294 LV316 DS322 FE308 DS320 WP295 LV315 LR034 SS035 FLO23 AN289 DS319 FE313  
 DS318 LV313 AN288 FE310 WP290 WP294 AN286 FE305 LV312 FE308 GI329 AN289 LV316 WP310 FE308  
 LV314 FE305 DS320 AN289 LV307 AN287 DS316 WP324 LV303 AN287 DS316 FE308 LV312 DS318 LV320  
 AN289 DS316 FE315 GI315 WP304 LV311 DS321 WP317 FE308 LV313 DS323 WP290 AN289 GI330 AN290  
 WP323 LV321 DS319 FE309

6=77

33.42N 44.27E 506 197 141deg 71 321 of 324 bearings  
 538.00 539.00 540.00 541.00 542.00 543.00 544.00 545.00 546.00 547.00  
 548.00 549.00 550.00 551.00 552.00 553.00 554.00 555.00 556.00 557.00  
 558.00 559.00 560.00 561.00 562.00 563.00 564.00 565.00 566.00 567.00  
 568.00 569.00 570.00 571.00 572.00 573.00 574.00 575.00 576.00 577.00  
 578.00 579.00 580.00 581.00 582.00 583.00 584.00 585.00 586.00 587.00  
 588.00 589.00 590.00 591.00 592.00 593.00 594.00 595.00 596.00 597.00  
 598.00 599.00 600.00 601.00 602.00 603.00 604.00 605.00 606.00 607.00  
 608.00

BE054 CA050 GI040 SS044 BE056 CA053 FL042 SS044 BE047 CA042 SS043 SS053 BE050 AN340 PS042  
 AN345 SS044 AN345 SS045 SS053 BE051 LR050 SS053 FL035 PS052 SS046 BE049 LR045 WP322 PS050  
 SS052 WP333 AN349 AL041 WP332 BE063 SS052 PS042 BE056 FL048 PS047 BE050 FL046 AL042 AL040  
 FL030 AN348 WP330 PS045 BE050 LR043 PS044 SS051 AL041 BE049 FL045 GI031 CA051 KI035 SS059  
 BE051 AN349 PS043 AL039 AL040 FL048 LR036 SS058 WP332 AN347 BE049 FL050 LR046 PS031 AN349  
 BE049 FL055 WP335 KI048 LR040 PS040 AL035 AN359 BE044 CA042 DS013 FE010 FL042 GI030 wp184  
 LR039 LV010 PS042 SS043 FL049 LR044 PS040 SS042 BE048 FL046 PS043 AN347 BE046 LR043 SS055  
 AN349 AL042 BE050 CA048 FL047 GI033 PS043 AL040 PS044 BE050 GI033 WP333 1r170 FL044 GI035  
 KI032 LR043 AL041 BE049 AN359 GI032 KI027 AL040 LR042 SS052 BE049 FL040 PS039 AL043 BE052  
 GI029 KI035 LR042 PS042 SS048 AL040 BE048 LR046 AL043 BE050 KI039 LR046 PS039 AL042 BE052  
 FL041 GI033 SS045 AN359 DS025 AL040 FL045 SS047 AL041 BE050 FL038 GI033 KI036 LR042 PS033  
 AL040 BE048 FL044 LR048 PS040 SS055 BE050 GI032 FE014 AL042 BE049 FL045 GI033 KI031 LR047  
 PS035 AL042 BE050 FL048 LR046 PS042 AL040 BE048 FL031 KI038 LR048 PS041 SS058 AN346 FL060  
 PS055 SS055 BE050 FE315 WP330 LR033 SS057 AL044 BE050 FL039 LR046 PS041 SS053 BE051 1s049  
 LR038 GI031 FE009 AN350 FL037 BE050 LV008 DS017 SS044 PS031 LV012 BE047 FE008 AL037 DS024  
 KI050 PS042 BE051 FL040 AL040 CA053 FL044 SS054 BE052 SS054 AN351 BE053 FL045 FL039 LR043  
 PS042 AN348 BE052 AL043 BE052 CA049 LR042 PS042 SS052 PS046 SS052 KI045 AN349 BE052 CA050  
 FL037 FL044 PS042 FL037 SS055 AN345 BE050 FL047 SS052 LR048 BE052 SS036 BE052 BE050 FL038  
 WP336 AN332 LR043 AN348 AL039 LR044 PS038 FL044 BE048 SS054 DS024 AN005 LV026 BE049 FL035  
 PS039 SS055 BE051 FL045 AN350 FL044 BE052 BE049 SS053 BE060 FL055 GI048 KI047 LR058 PS051  
 SS050 SS048 FL039 FL043 BE048 WP337 SS044 AN350 SS047 SS050 BE051 FL044 BE051 SS049 AN349  
 SS046 FL043 LR045 SS053 PS043 AN348 BE055 PS045 SS046

7=7K

47.06N 63.15E 152 31 130deg 76 246 of 246 bearings  
 610.00 611.00 612.00 613.00 614.00 615.00 616.00 617.00 618.00 619.00  
 620.00 621.00 622.00 623.00 624.00 625.00 626.00 627.00 628.00 629.00  
 630.00 631.00 632.00 633.00 634.00 635.00 636.00 637.00 638.00 639.00  
 640.00 641.00 642.00 643.00 644.00 645.00 646.00 647.00 648.00 649.00  
 650.00 651.00 652.00 653.00 654.00 655.00 656.00 657.00 658.00 659.00  
 660.00 661.00 662.00 663.00 664.00 665.00 666.00 667.00 668.00 669.00  
 670.00 671.00 672.00 673.00 674.00 675.00 676.00 677.00 678.00 679.00  
 680.00 681.00 682.00 683.00 684.00 685.00

KO072 BL085 KR081 DS002 BE029 BL095 KR084 N0083 N1099 N2116 N0098 N1104 N1100 N0084 N2105  
 N0085 NE069 N0084 NE070 N0078 NE068 U2070 NE091 N0075 NE073 N0080 N0080 N1105 NE072 BE029  
 U2074 NE072 N2105 U2075 N0092 BL084 KR078 IT085 N0075 NE076 U2074 N3120 NE074 BE029 NE076  
 U2073 NE073 U2075 N0098 U2073 N1098 KR076 IT080 BL082 N0085 BE030 DS002 FE351 AN334 N0085  
 U2072 N0085 N3126 N0086 U2075 N0080 N1100 AN337 FE357 LR033 PS023 U2073 N0085 WP324 AN334  
 U2075 N0085 U2075 N0086 N3120 U2075 N0086 N0083 N1100 U2074 N0082 NE077 N0080 NE077 KO076  
 U2075 N2100 N0085 FE354 NE061 N0078 U2075 NE070 BL082 KO071 KR080 SS042 U2074 U2074 N0085  
 AN339 LV355 BE030 PS021 FL026 FL026 PS022 LR024 NE077 KO075 U2075 NE070 N0093 NE077 FL024  
 SS036 N0080 LV354 NE078 N0083 NE076 N0089 N2105 NE066 N0066 N2104 NE066 N0080 NE070 N0087  
 NE068 NE064 N0075 N2103 NE063 U2077 NE077 N2100 N0085 NE068 N0085 N1097 NE078 N0080 NE065  
 KO066 BL084 IT082 N0087 KO067 BL085 KR078 NE077 N0085 N2102 AN332 LV358 FE351 NE070 N0088  
 U2076 NE066 KO070 IT082 KR078 U2074 NE075 NE074 N0082 N2098 SS036 AL015 BE030 FL026 NE060  
 N0083 NE076 N0081 NE076 N0085 N1100 U2077 N0080 N0085 U2035 N0086 U2073 SS075 NE076 N0080  
 U2074 N0080 NE075 N0081 N1101 N2111 N0085 DS359 FE351 BE029 PS018 GI009 SS036 AL017 U2072  
 N0080 N3115 N1095 N3115 N2110 N0080 U2077 NE073 KR081 N0085 NE059 N0075 N0075 NE074 U2076  
 NE075 SS037 N0086 N0083 N1098 N0080 N1096 NE073 U2074 NE073 NE073 U2075 NE076 N0082 NE076  
 N0084 U2075 NE076 N0085 KO074 BL085

8=8L

53.30N 49.56E 157 55 111deg 10 32 of 32 bearings

686.00 687.00 688.00 689.00 690.00 691.00 692.00 693.00 694.00 695.00  
 IT072 BL078 U2065 U2068 U2068 U2068 KO061 IT075 KR068 N3137 PS025 N2110 N1108 N0084 N3135  
 N0079 IT070 KO060 U2069 NE070 BL078 KR070 IT073 BL075 KR070 IT072 BL077 U2070 AL025 KO062  
 KR070 IT079

9=A5

44.31N 23.48E 106 19 138deg 13 42 of 42 bearings  
 696.00 697.00 698.00 699.00 700.00 701.00 702.00 703.00 704.00 705.00  
 706.00 707.00 708.00  
 BK114 U2112 NE106 BL130 KR119 BE052 KR120 BL135 KO110 NE113 NE109 N0140 NE110 N0133 N0135  
 N3177 LV024 AN005 GI038 FE025 AN005 BE055 FE022 GI039 SS049 NE113 N0115 KR118 BL130 N0132  
 BE054 FL042 IT135 BL130 KO108 KR120 KR113 IT131 BL135 BL138 IT133 KR118

10=AD

41.46N 48.94E 435 75 126deg 12 28 of 30 bearings  
 710.00 711.00 712.00 713.00 714.00 715.00 716.00 717.00 718.00 719.00  
 720.00 721.00  
 AL025 FL030 KO088 IT100 KR097 U2088 NE088 N0085 KO090 SS034 AL030 ne066 N2120 AL028 SS042  
 N3145 BE039 PS035 AL031 ne070 N0114 N2125 KR091 NE089 N0105 U2090 NE090 AL029 KR092 BL104

11=AG

45.55N 87.52E 275 77 135deg 50 166 of 166 bearings  
 722.00 723.00 724.00 725.00 726.00 727.00 728.00 729.00 730.00 731.00  
 732.00 733.00 734.00 735.00 736.00 737.00 738.00 739.00 740.00 741.00  
 742.00 743.00 744.00 745.00 746.00 747.00 748.00 749.00 750.00 751.00  
 752.00 753.00 754.00 755.00 756.00 757.00 758.00 759.00 760.00 761.00  
 762.00 763.00 764.00 765.00 766.00 767.00 768.00 769.00 770.00 771.00  
 AN290 FE314 AN287 FE318 WP294 LV314 WP290 LV311 AN287 WP294 LV310 AN276 DS309 AN283 WP298  
 LV316 FE311 WP294 AN287 AN283 KI305 AN293 LV311 FE312 AL339 AN292 DS322 LV315 KI327 DS320  
 LV316 FE308 AN290 FE315 AN295 WP311 LV323 BL060 KO055 FE311 AN287 DS315 AN287 WP290 DS320  
 KI331 LV310 AN287 DS319 FE314 GI328 KI325 DS319 FE314 K1324 AL341 AN287 DS314 FE310 LV305  
 PS341 AN289 FE312 BK058 IT061 IT063 KR060 BL060 KO052 BL060 U2060 NE061 KO055 BL060 IT065  
 WP340 BL060 IT064 NE068 U2060 NE071 U2060 NE062 N0069 N3118 N1087 N3113 KO057 BL060 IT065  
 KR061 NE068 N0070 U2061 U2061 BL070 N0072 SS035 KO054 BL065 NE080 N0070 N2095 N0070 NE063  
 FE357 AN344 WP340 SS043 LR021 LV357 NE061 NE062 BE027 SS045 WP340 NE068 NE066 U2059 N2093  
 NE081 FE357 NE068 U2058 NE060 FE357 N0093 IT065 N2095 NE063 NE061 N2095 NE060 N0070 N1088  
 N2093 N0072 N2095 KR058 IT063 BL061 KO057 U2060 NE064 N2095 BL061 KR059 N1090 KO057 IT080  
 KR067 BL062 KO056 IT060 U2057 NE064 KO058 IT064 BL064 KR060 BL060 IT067 KR060 LV319 FE312  
 AN288

12=AN

55.55N 39.04E 93 20 96deg 19 62 of 63 bearings  
 773.00 774.00 775.00 776.00 777.00 778.00 779.00 780.00 781.00 782.00  
 783.00 784.00 785.00 786.00 787.00 788.00 789.00 790.00 791.00  
 IT072 BL068 BL068 IT072 DS022 FL034 N0090 KR067 BL067 KO049 BE039 LR039 PS039 SS042 U2065  
 NE067 AL038 PS044 N0080 KR068 IT071 BL075 U2062 NE074 NE067 U2065 BK066 U2065 N0085 N1117  
 NE066 U2065 NE066 N0088 U2065 NE068 AL029 KI028 BK060 N0086 KR065 IT073 KO056 N3139 FL031  
 U2065 N0085 KR070 AL029 BE033 KR065 N0085 LR037 SS032 BE041 NE068 n0190 NE069 BE043 FL038  
 GI034 NE069 N0090

13=AR

54.74N 41.30E 508 84 100deg 3 11 of 11 bearings  
 792.00 793.00 794.00  
 U2067 NE068 FL032 U2070 KO061 BL070 KR070 NE063 U2068 NE073 N0085

14=AS

51.49N 38.36E 141 51 118deg 4 8 of 8 bearings  
 795.00 796.00 797.00 798.00  
 IT087 BL085 N0095 N2139 FL036 SS050 BL085 IT085

15=AU

56.27N 33.51E 118 70 114deg 5 9 of 12 bearings  
 799.00 800.00 801.00 802.00 803.00  
 U2068 N2137 U2062 N0090 n0107 N2142 IT084 KR060 N0090 KR059 U2067 ne053

16=AW

20.45N 76.58E 2654 792 177deg 3 8 of 8 bearings  
 804.00 805.00 806.00

AN313 GI018 AN297 GI003 BE043 FE318 GI028 AN296

17=BI

50.17N 17.93E 26 11 116deg 33 105 of 105 bearings  
 807.00 808.00 809.00 810.00 811.00 812.00 813.00 814.00 815.00 816.00  
 817.00 818.00 819.00 820.00 821.00 822.00 823.00 824.00 825.00 826.00  
 827.00 828.00 829.00 830.00 831.00 832.00 833.00 834.00 835.00 836.00  
 837.00 838.00 839.00  
 N0125 N3185 FL042 BE052 BE051 FL041 LR044 PS038 SS044 BL128 KO051 BL112 IT137 BK095 N1158  
 KO070 BL120 KR102 IT120 BL130 KR102 NE094 BL130 IT128 BK099 BL125 FL044 SS040 NE093 U2097  
 U2097 BK092 KO073 KR098 BL121 IT118 BK096 U2096 PS041 BE051 BE051 FL041 PS041 KR102 KO075  
 FE029 PS041 KO051 BE051 FL041 LR043 PS038 FE029 LV028 BL110 FL041 PS040 BE047 FL041 LR050  
 LV026 PS039 SS042 AL040 FL041 LR049 PS040 SS042 KR102 IT125 BL125 KO077 AL042 BE052 FL042  
 PS035 U2096 U2099 SS044 BE052 NE096 BE051 NE097 U2096 NE094 BE051 SS038 N0136 NE094 U2096  
 U2098 N0135 BE052 SS032 NE095 BE052 KR100 BL130 KR098 KO056 IT116 BL105 KO070 N0130 N2175

18=BA

47.59N 136.46E 1961 369 47deg 8 25 of 25 bearings  
 840.00 841.00 842.00 843.00 844.00 845.00 846.00 847.00  
 AN286 DS325 AN288 DS319 FE310 LV316 AN288 WP295 AN289 DS320 FE310 WP318 LV316 AN287 FE308  
 LV318 FE311 AN282 FE311 AN286 DS320 WP318 LV318 PS329 WP313

19=BD

54.36N 26.70E 40 19 92deg 30 80 of 87 bearings  
 848.00 849.00 850.00 851.00 852.00 853.00 854.00 855.00 856.00 857.00  
 858.00 859.00 860.00 861.00 862.00 863.00 864.00 865.00 866.00 867.00  
 868.00 869.00 870.00 871.00 872.00 873.00 874.00 875.00 876.00 877.00  
 BL075 IT080 KR060 AN359 BE036 GI017 SS042 KO057 BL080 BL071 IT080 KR060 n0080 n1125 BK062  
 NE066 N0097 NE071 NE078 n2107 n0078 N0095 N1130 N3167 N2148 IT078 KO042 KR074 LR041 GI031  
 n2130 DS024 NE069 AN356 KR071 NE084 GI028 AL034 BE043 BE043 DS024 GI028 WP356 AL034 U2070  
 ne089 AL040 LR037 NE064 SS041 LR037 BE038 PS039 AL035 PS039 NE064 KR072 AL034 DS024 FE017  
 AN357 N0111 N2161 N1142 FL029 SS046 BE043 KR072 KI026 DS020 n0081 N1143 KO057 KR072 N2161  
 U2075 N0090 U2071 N2150 IT087 KO057 KR074 U2073 IT080 N0090 KR074 KO055

20=BG

55.60N 39.01E 26 9 96deg 88 337 of 342 bearings  
 878.00 879.00 880.00 881.00 882.00 883.00 884.00 885.00 886.00 887.00  
 888.00 889.00 890.00 891.00 892.00 893.00 894.00 895.00 896.00 897.00  
 898.00 899.00 900.00 901.00 902.00 903.00 904.00 905.00 906.00 907.00  
 908.00 909.00 910.00 911.00 912.00 913.00 914.00 915.00 916.00 917.00  
 918.00 919.00 920.00 921.00 922.00 923.00 924.00 925.00 926.00 927.00  
 928.00 929.00 930.00 931.00 932.00 933.00 934.00 935.00 936.00 937.00  
 938.00 939.00 940.00 941.00 942.00 943.00 944.00 945.00 946.00 947.00  
 948.00 949.00 950.00 951.00 952.00 953.00 954.00 955.00 956.00 957.00  
 958.00 959.00 960.00 961.00 962.00 963.00 964.00 965.00  
 IT070 BL072 BL068 IT073 KO058 IT070 BL068 KR060 N0080 U2065 N0087 N3152 N3150 N2129 KO055  
 KR070 IT072 BL070 NE070 U2068 N0085 N2128 N0087 n0117 N2124 U2066 KO055 BL071 IT070 NE068  
 KR067 BL070 IT075 KO063 BL070 IT073 KO055 KR070 KR067 KO058 BL070 IT071 KR067 KO060 KO058  
 KR066 IT072 U2064 BL071 KR066 KO058 IT071 BK068 U2065 KO058 KR067 NE083 BK068 NE066 N0088  
 KO050 N3135 KO039 N3154 N0087 KO051 KR060 KO059 BL070 KR066 KO050 U2067 U2068 U2068 NE061  
 SS035 NE069 U2068 NE068 PS036 NE070 N0090 AL046 KR066 BL068 KO054 IT072 NE068 SS038 NE069  
 N0096 U2067 NE069 BE050 SS035 NE068 N0090 IT080 KO060 BL072 N0088 U2065 NE068 NE069 NE068  
 IT069 BL066 KO057 KR060 IT070 KO057 KR063 BL067 NE065 N1120 NE070 N0081 N3152 AL027 LR034  
 SS044 PS030 U2065 N0082 N3149 N1115 N2128 IT072 NE080 BK063 U2065 N0083 N3150 LR033 AL028  
 PS030 N1116 NE070 BL068 KO059 IT073 U2065 BE037 AL026 BK062 U2063 NE067 KO058 IT070 KR069  
 KO058 IT070 BL068 KR075 N0085 N1115 BL068 KR075 IT070 KO058 U2067 KR075 KO058 BL068 IT070  
 KO058 KR075 IT070 BL068 NE068 NE071 U2065 BL066 KR063 it094 AN350 BE035 SS034 IT068 BL070  
 KO054 KR068 U2064 U2064 SS036 LR030 BE036 FL030 BK058 U2065 U2065 N3148 AL029 BE038 KI023  
 GI022 SS039 U2070 IT052 KR068 U2064 it053 KR065 U2064 AN001 SS034 BE037 PS040 N3150 IT070  
 KO051 KR065 N0079 AL027 BE027 FL030 IT060 KR068 BE031 LR048 AL030 BE034 GI320 LR029 N3141  
 N0080 N3142 n3132 n2103 AN001 U2066 U2066 U2066 KR070 BL071 KO050 U2066 BL068 IT072 KR083  
 BL068 KR085 IT072 BL070 KO054 KR065 U2063 N0088 N2141 IT060 BL072 BL068 KR085 N0087 KO062  
 U2066 KO052 BL068 N0098 U2065 KO052 BL070 KR067 N0085 KO055 KR066 N0094 KO051 BL065 IT077  
 KR065 KO045 BL068 IT080 KR068 KO053 BL073 N3132 N0089 U2064 N0077 N3147 N0085 N3133 U2067

KO050 IT068 KR060 N0087 N3149 AL009 KO055 BL070 IT070 U2065 N0085 N1115 U2067 N3145 N2130  
 KO056 BL070 IT078 NE075 U2067 U2065 NE069 N2134 N3150 NE070 N0087 BL070 KO055 KR064 NE069  
 BL065 KR066 BL068 KO065 KR065 IT066 U2067 NE068 IT059 BL068 NE068 U2067 N2145 N3160 N0086  
 IT060 BL068 IT072 BL070 KO050 KR065 IT078 KO050 NE070 SS036 GI031 AN358

21=BI 54.65N 18.99E 133 36 62deg 3 8 of 8 bearings  
 966.00 967.00 968.00  
 BE048 FL003 LR042 IT071 BL055 KO037 KR064 KO042

22=BL 55.11N 26.73E 37 18 94deg 17 41 of 44 bearings  
 970.00 971.00 972.00 973.00 974.00 975.00 976.00 977.00 978.00 979.00  
 980.00 981.00 982.00 983.00 984.00 985.00 986.00  
 N0098 n1109 N0095 N2145 N0100 N2150 BK070 U2068 N0096 N3179 BL069 KO051 KR067 U2067 N0095  
 U2066 KR067 IT067 BL070 BL075 KO047 KR065 KO065 NE067 BE042 FL038 DS026 KI028 N0101 N2155  
 U2070 N3172 BK060 NE066 ne081 N0105 U2069 ne082 N0102 N1131 N0104 N2165 N3177 N2163

23=BN 54.53N 58.37E 361 161 122deg 4 8 of 11 bearings  
 987.00 988.00 989.00 990.00  
 BE032 LR041 N3119 n2157 an004 FE014 KR064 KO058 it092 AN345 FE354

24=BR 11.87S 86.21E 3209 1001 147deg 2 5 of 6 bearings  
 1000.00 1001.00  
 FL039 LR041 ss037 AN289 FE313 LV316

25=BU 50.06N 35.66E 113 21 110deg 14 43 of 43 bearings  
 1002.00 1003.00 1004.00 1005.00 1006.00 1007.00 1008.00 1009.00 1010.00 1011.00  
 1012.00 1013.00 1014.00 1015.00  
 KR086 BL090 IT094 KO068 N0102 N2141 KO080 IT093 KR083 NE081 U2075 U2085 N2145 IT094 KR085  
 U2084 BK084 N0100 U2082 NE084 U2083 NE082 NE084 N0100 KO068 KR086 IT094 BL090 BK082 N0100  
 U2082 NE084 U2082 N0103 IT094 BL082 KO066 KR081 IT094 U2082 N3155 U2083 N0100

26=CB 53.40N 46.00E 153 52 116deg 18 45 of 46 bearings  
 1016.00 1017.00 1018.00 1019.00 1020.00 1021.00 1022.00 1023.00 1024.00 1025.00  
 1026.00 1027.00 1028.00 1029.00 1030.00 1031.00 1032.00 1033.00  
 N0093 N2122 LV010 AN351 DS003 WP347 U2068 NE067 BL070 KR064 IT070 KO073 IT076 NE068 N3140  
 N1108 N0099 SS038 N0081 N3133 KR074 IT085 U2070 N0070 NE072 KR072 KO060 WP348 BE344 NE070  
 FE002 AN350 FE020 GI050 an290 WP347 N0085 BE034 LV004 WP352 AN346 FE005 NE070 KR072 U2075  
 NE074

27=CG 55.52N 76.60E 373 96 130deg 17 43 of 44 bearings  
 1034.00 1035.00 1036.00 1037.00 1038.00 1039.00 1040.00 1041.00 1042.00 1043.00  
 1044.00 1045.00 1046.00 1047.00 1048.00 1049.00 1050.00  
 KO055 IT062 KR050 N3092 AL038 WP325 KI355 N2090 N3090 N3100 AN330 WP331 DS355 U2060 N3087  
 N1069 N2084 WP324 FE013 NE063 U2060 U2052 U2052 NE067 GI035 WP327 N0070 U2055 NE058  
 N0065 U2073 N0075 U2052 NE066 AN331 N0065 N1075 SS036 BE017 U2052 ne075 IT082 BL062

28=D1 49.22N 19.60E 4945 190 110deg 2 3 of 4 bearings  
 1051.00 1052.00  
 U2095 ne092 FE023 LV026

29=D3 50.41N 14.69E 19 14 107deg 28 77 of 80 bearings  
 1053.00 1054.00 1055.00 1056.00 1057.00 1058.00 1059.00 1060.00 1061.00 1062.00  
 1063.00 1064.00 1065.00 1066.00 1067.00 1068.00 1069.00 1070.00 1071.00 1072.00  
 1073.00 1074.00 1075.00 1076.00 1077.00 1078.00 1079.00 1080.00  
 AL039 LR042 AN007 PS042 BE050 FL042 KR060 KO058 KR098 KO059 AL037 PS038 FL037 KO057 IT111  
 KR096 N0149 N3203 KO059 IT136 KR104 N1173 N0130 KR101 BL140 KO050 n0105 AL038 BE048 GI042  
 KI041 PS042 U2094 FL043 KR099 IT138 KR101 IT142 KO052 LV030 FE026 PS040 AL038 PS038 AN011  
 PS040 LR047 PS040 BE050 n1120 NE094 FL041 SS036 LR042 PS040 N0139 BE046 PS042 KR102 BL152  
 KO059 KR101 KO052 KR099 U2095 BE052 SS046 N0144 ne069 N0148 LV026 NE070 KR100 NE094 U2096  
 NE080 U2096 N2183 U2095 NE095

30=DA

54.80N 65.92E 270 59 114deg 43 128 of 128 bearings  
 1081.00 1082.00 1083.00 1084.00 1085.00 1086.00 1087.00 1088.00 1089.00 1090.00  
 1091.00 1092.00 1093.00 1094.00 1095.00 1096.00 1097.00 1098.00 1099.00 1100.00  
 1101.00 1102.00 1103.00 1104.00 1105.00 1106.00 1107.00 1108.00 1109.00 1110.00  
 1111.00 1112.00 1113.00 1114.00 1115.00 1116.00 1117.00 1118.00 1119.00 1120.00  
 1121.00 1122.00 1123.00  
 NE060 U2050 KR054 BL062 IT058 N0063 AN328 LV018 AN328 AL007 LR014 PS009 BE016 GI001 AN329  
 AL008 AN329 WP328 AN325 NE072 WP325 NE076 N0084 NE068 WP325 WP330 AN328 NE076 BL067 IT058  
 U2052 AN331 WP331 U2060 WP331 U2058 N0080 AN329 WP325 IT060 BL066 KR065 IT070 KO030 N0078  
 IT071 BL065 KO060 KR062 U2055 N0060 FE354 AN333 WP331 N0080 DS002 WP333 AN340 KR055 IT057  
 KO055 BL060 NE071 NE074 WP325 U2055 NE058 NE064 WP328 DS001 U2053 IT069 KO062 BL085 NE070  
 U2055 NE064 WP324 IT067 BL062 KR065 FE344 LV345 AN326 WP314 AN328 NE072 AL009 DS355 KO053  
 KR066 N0069 WP327 NE064 AL009 KI002 DS350 WP327 DS356 AL010 DS353 AL008 AL007 BE016 GI001  
 LR013 N2080 NE066 U2054 AN331 WP330 N1080 KO062 BL062 IT069 U2062 N0060 GI038 WP331 AN326  
 WP331 NE084 KI032 BE012 WP325 DS353 NE066 KR054

31=DB

48.90N 68.48E 351 100 138deg 13 34 of 34 bearings  
 1124.00 1125.00 1126.00 1127.00 1128.00 1129.00 1130.00 1131.00 1132.00 1133.00  
 1134.00 1135.00 1136.00  
 AN357 N3116 AN327 WP352 IT075 KR073 WP321 AL008 AN332 FE345 AL009 AN326 N1090 NE058 KR072  
 U2067 N1090 NE065 KR072 KO066 WP322 FE343 AN330 WP323 N2116 N0077 U2068 N3110 N1090 N3110  
 NE077 N2101 AN327 GI030

32=DR

55.28N 23.33E 25 10 82deg 58 192 of 194 bearings  
 1138.00 1139.00 1140.00 1141.00 1142.00 1143.00 1144.00 1145.00 1146.00 1147.00  
 1148.00 1149.00 1150.00 1151.00 1152.00 1153.00 1154.00 1155.00 1156.00 1157.00  
 1158.00 1159.00 1160.00 1161.00 1162.00 1163.00 1164.00 1165.00 1166.00 1167.00  
 1168.00 1169.00 1170.00 1171.00 1172.00 1173.00 1174.00 1175.00 1176.00 1177.00  
 1178.00 1179.00 1180.00 1181.00 1182.00 1183.00 1184.00 1185.00 1186.00 1187.00  
 1188.00 1189.00 1190.00 1191.00 1192.00 1193.00 1194.00 1195.00  
 N0104 N3170 PS032 LR042 AL038 N0104 N0100 NE067 GI039 LR041 FL031 PS033 SS041 U2068 NE072  
 AN350 SS037 U2070 NE070 U2068 N3169 U2065 U2065 SS036 BL050 IT076 KO038 U2069 N0108 N2164  
 N1152 BL060 IT076 U2070 N3155 N0104 N3187 KO041 KR065 IT076 KO039 NE069 KO044 KR065 IT076  
 BL055 BK063 U2064 FL039 SS036 NE067 NE067 NE072 U2068 BL058 KO045 KR064 U2068 N0112 NE069  
 NE068 N0110 U2067 N2145 SS041 LR038 NE060 BE048 LR039 BK056 U2067 NE069 KR064 BL056 IT072  
 N2140 NE066 N0107 N0104 N2168 N0109 NE067 N2170 N0104 U2067 KO039 BL055 IT073 BE034 FL032  
 NE075 U2067 N0106 AN003 NE071 BL060 IT072 KO049 KR064 NE072 IT055 BL052 KR067 NE070 U2069  
 U2069 NE079 N0098 N0105 N2157 LR041 AL048 BE044 SS038 PS040 U2069 U2069 NE068 BE045 FL033  
 U2066 AL047 BE044 FL034 LR035 PS042 AL045 BE047 N0100 PS042 FL036 SS036 AL044 BE046 U2066  
 N0100 BE047 FL036 PS042 SS044 FL033 AL047 BE045 LR043 SS046 PS038 BE040 LR037 N0080 FL034  
 SS042 NE070 NE059 N0095 BE043 N0092 U2068 KO044 KR066 LR039 AL039 BE046 N1150 NE067 N0090  
 KO048 KR064 BL077 U2067 AN005 U2066 N0087 AL034 AN003 LR036 U2067 KR056 N2159 NE069 ne090  
 N0105 N2166 N0110 N3176 U2065 NE068 BL055 KR066 IT072 U2067 BE043 U2068 N0100 n3140

33=DU

58.96N 31.64E 19 15 120deg 46 122 of 135 bearings  
 1196.00 1197.00 1198.00 1199.00 1200.00 1201.00 1202.00 1203.00 1204.00 1205.00  
 1206.00 1207.00 1208.00 1209.00 1210.00 1211.00 1212.00 1213.00 1214.00 1215.00  
 1216.00 1217.00 1218.00 1219.00 1220.00 1221.00 1222.00 1223.00 1224.00 1225.00  
 1226.00 1227.00 1228.00 1229.00 1230.00 1231.00 1232.00 1233.00 1234.00 1235.00  
 1236.00 1237.00 1238.00 1239.00 1240.00 1241.00  
 N0078 N3164 N0072 N3164 N2136 N0073 N3160 IT055 BL045 KO046 N0073 N3155 N2139 N0074 N3164  
 N2138 N3160 N2135 N0075 N1120 N2138 n0100 U2055 NE058 KI025 FL029 AL033 FL030 ne070 N0075  
 n0118 N2139 N0080 N1125 KR050 IT055 KO035 BL049 KR055 IT055 BL058 N0074 N2140 NE061 BE038  
 SS036 N0077 KO045 IT057 KR052 BL055 N3159 N2140 ne080 N2140 ne080 N2140 AN000 NE064 N0090  
 U2060 NE069 AN357 U2060 N2140 NE068 N0080 ne078 N3160 IT060 KO035 KR050 N0080 NE057 NE068  
 N0072 N3168 ne074 N2143 N3165 NE059 N2140 N0073 ne070 ne070 N2140 N2140 ne070 N2140 N1123  
 IT055 BL047 KR052 N2136 N3160 U2060 U2054 N0104 N3164 N2133 U2054 IT075 KO043 U2052 BE025  
 AN001 N3155 N0080 AL020 DS016 GI021 SS037 N3160 AN001 FE013 LV017 SS037 N0080 NE060 U2057  
 WP352 FE011 NE068 N0078 U2058 N0087 N1120 N2138 SS036 FE012 NE064 ne070 n0120 PS039 GI024



34=FA

47.49N 134.93E 370 112 51deg 52 187 of 188 bearings  
 1244.00 1245.00 1246.00 1247.00 1248.00 1249.00 1250.00 1251.00 1252.00 1253.00  
 1254.00 1255.00 1256.00 1257.00 1258.00 1259.00 1260.00 1261.00 1262.00 1263.00  
 1264.00 1265.00 1266.00 1267.00 1268.00 1269.00 1270.00 1271.00 1272.00 1273.00  
 1274.00 1275.00 1276.00 1277.00 1278.00 1279.00 1280.00 1281.00 1282.00 1283.00  
 1284.00 1285.00 1286.00 1287.00 1288.00 1289.00 1290.00 1291.00 1292.00 1293.00  
 1294.00 1295.00  
 WP311 AN289 DS319 AN288 LV318 WP311 DS325 LV320 WP312 FE311 WP316 FE311 AN289 DS320 LV319  
 FE309 AN287 LV317 DS324 WP313 FE309 WP313 LV313 AN291 DS318 DS323 KI331 LV319 AN290 WP310  
 LV316 FE311 GI325 WP319 AN288 DS323 FE310 WP317 LV318 DS320 FE308 WP310 LV317 AN288 WP315  
 FE310 AN289 FE304 WP318 AN286 FE307 AN286 FE308 WP314 FE310 AN288 LV318 WP315 DS325 FE311  
 AN291 AN289 LV314 DS318 AN289 AL337 FE314 WP315 AN288 LV318 GI327 DS321 FE310 WP313 FE309  
 WP312 LV317 FE310 WP312 DS323 AL332 AN288 LV315 AN289 FE311 LV317 WP312 DS322 DS322 FE310  
 GI328 LV318 AN288 AN288 DS323 FE310 WP309 AN288 LV315 AN289 WP310 AN290 FE316 LV316 LV316  
 DS322 AN279 WP314 FE308 AN288 LV318 DS319 WP314 WP312 AN288 FE308 DS319 DS322 FE310 WP310  
 LV316 AN287 WP310 FE308 LV315 AN287 WP311 FE311 WP309 FE310 LV316 AN288 AN288 DS322 FE311  
 GI320 WP319 LV316 AN288 DS323 WP311 KI335 LV316 FE311 WP314 LV315 AN288 DS320 WP315 LV313  
 WP311 LV317 AN290 DS321 AN290 DS321 WP315 LV303 FE310 LV313 AN288 AN288 DS326 KI326 LV320  
 AN287 DS321 WP310 LV315 AN288 WP317 LV317 AN289 PS336 GI321 DS324 LV315 DS321 LV318 AN287  
 wp150 AN288 WP316 LV315 AN287 DS322 WP310 LV317

35=FL

48.88N 37.19E 71 23 124deg 26 100 of 103 bearings  
 1304.00 1305.00 1306.00 1307.00 1308.00 1309.00 1310.00 1311.00 1312.00 1313.00  
 1314.00 1315.00 1316.00 1317.00 1318.00 1319.00 1320.00 1321.00 1322.00 1323.00  
 1324.00 1325.00 1326.00 1327.00 1328.00 1329.00  
 AL038 BE045 DS020 LR041 SS046 AN004 FL037 FE012 N0088 N2140 N0115 N2154 KR088 IT098 N0103  
 LR039 AL036 IT100 AN355 BE044 ne066 BL101 KR089 PS036 SS043 FL038 KI028 DS021 N1128 N2137  
 U2090 KR088 NE084 N1130 N0102 NE086 AN355 BE042 FE009 FL036 GI036 KI029 NE085 U2082 NE085  
 ne065 NE085 N1127 KR090 N0101 N3157 N1128 U2085 NE084 N0111 NE075 N0099 NE084 KR088 IT097  
 N2137 NE068 BL096 KR085 BE042 FE009 FL037 SS039 PS038 LR035 AL035 N2138 ne067 FE010 AN352  
 LV012 DS018 N0103 IT100 KO073 NE080 N0102 N0100 N1140 U2086 NE084 KO055 IT098 BL099 KO077  
 U2085 N0102 NE086 N3157 NE086 PS040 SS039 AL035 FE013 LR035 AN356 FE013 WP348

36=FM

52.95N 143.39E 540 166 56deg 11 33 of 33 bearings  
 1330.00 1331.00 1332.00 1333.00 1334.00 1335.00 1336.00 1337.00 1338.00 1339.00  
 1340.00  
 LV317 DS326 AN290 FE311 DS323 WP320 AN290 DS320 WP313 AN290 WP313 AN289 DS326 FE311 AN289  
 LV323 FE308 GI329 AN291 DS324 KI333 WP318 AN288 AN285 WP350 FE310 WP316 AN289 WP310 AN286  
 AN287 DS323 WP317

37=FR

43.56N 63.72E 784 94 125deg 7 33 of 33 bearings  
 1341.00 1342.00 1343.00 1344.00 1345.00 1346.00 1347.00  
 BL080 N0080 U2072 NE080 N0085 KR080 IT082 BL086 NE077 NE077 BK075 N0087 U2076 NE072 SS042  
 AN328 DS353 KR080 BL087 KO073 AN328 DS353 NE076 N0090 KR087 KR090 NE077 BK075 KR080 IT082  
 KO074 U2075 NE082

38=FU

49.72N 64.12E 160 36 124deg 46 186 of 186 bearings  
 1348.00 1349.00 1350.00 1351.00 1352.00 1353.00 1354.00 1355.00 1356.00 1357.00  
 1358.00 1359.00 1360.00 1361.00 1362.00 1363.00 1364.00 1365.00 1366.00 1367.00  
 1368.00 1369.00 1370.00 1371.00 1372.00 1373.00 1374.00 1375.00 1376.00 1377.00  
 1378.00 1379.00 1380.00 1381.00 1382.00 1383.00 1384.00 1385.00 1386.00 1387.00  
 1388.00 1389.00 1390.00 1391.00 1392.00 1393.00  
 KR073 IT073 BL080 AN324 WP323 U2067 U2067 KO070 NE073 IT075 BL080 KO069 U2067 NE068 KR070  
 KO063 BK068 NE070 U2067 BK069 N1090 U2066 AL010 NE068 WP323 PS043 BE025 KR072 IT075 U2068  
 KR072 BL078 KO082 U2066 N3109 AN324 WP322 KR070 AL012 AN331 GI005 WP322 N0078 U2068 N2094  
 FE349 BE021 SS030 WP326 LV349 AL011 NE070 N0080 N2090 N0085 NE097 N0088 U2067 N0075 KR071  
 IT075 BL074 DS022 U2067 N0073 N1092 KR072 IT076 BL072 KO065 N3109 N0076 N0085 N3120 N0070  
 BE022 AL010 GI037 NE071 WP335 KI004 FL041 AL010 N0080 NE085 KR071 BL080 NE065 NE070 N0083  
 BE025 WP322 AL011 KI007 N0075 N1090 N0090 NE069 NE080 N0075 NE073 U2067 NE069 AN325 FL037

U2067 N0075 N0085 NE068 N0075 NE070 N1090 N0085 U2068 NE078 N2146 U2066 NE070 KO064 BL079  
 IT075 KR071 IT070 BL076 KO065 N0075 WP322 AN325 BE024 FL025 PS035 N3125 AL010 AN324 NE071  
 N0082 KR073 BK067 WP328 AL040 NE071 SS033 LR045 U2067 GI032 PS022 NE072 N0085 NE074 AN335  
 SS034 NE073 N0081 U2058 NE078 N0075 N1090 DS356 WP322 AL011 BE021 LR018 PS015 U2068 N0095  
 KR073 NE068 N0075 U2066 NE070 KR072 U2065 N0075 N2105 N1090 NE066 KR073 SS030 N1085 N2105  
 N0085 U2065 NE069 LV350 AN326 FE347

39=G3

42.84N 25.51E 122 28 140deg 10 35 of 35 bearings  
 1395.00 1396.00 1397.00 1398.00 1399.00 1400.00 1401.00 1402.00 1403.00 1404.00  
 KR116 KO110 U2107 AL042 BE054 FL044 SS055 FL046 BE053 BK112 KR116 N0132 N3177 N2162 IT133  
 BL135 KR116 PS042 SS046 AL046 FL046 AL045 FL045 SS045 N0134 N2167 FL045 PS040 N2166 N0133  
 FL046 SS053 FL047 GI040 BE055

40=G7

49.94N 16.16E 32 15 129deg 12 36 of 36 bearings  
 1405.00 1406.00 1407.00 1408.00 1409.00 1410.00 1411.00 1412.00 1413.00 1414.00  
 1415.00 1416.00  
 KR108 KO070 IT140 BL142 U2099 U2099 N2185 KO050 BL145 IT138 KR108 BK097 KO064 IT095 KR106  
 BL142 KR107 KO050 U2101 NE097 BK097 NE096 BL125 IT131 KR102 BK097 BL140 KR108 NE096 N2185  
 N1172 BL140 KO069 KR103 N2189 N0138

41=GI

56.63N 37.79E 24 15 124deg 46 158 of 164 bearings  
 1419.00 1420.00 1421.00 1422.00 1423.00 1424.00 1425.00 1426.00 1427.00 1428.00  
 1429.00 1430.00 1431.00 1432.00 1433.00 1434.00 1435.00 1436.00 1437.00 1438.00  
 1439.00 1440.00 1441.00 1442.00 1443.00 1444.00 1445.00 1446.00 1447.00 1448.00  
 1449.00 1450.00 1451.00 1452.00 1453.00 1454.00 1455.00 1456.00 1457.00 1458.00  
 1459.00 1460.00 1461.00 1462.00 1463.00 1464.00  
 BL068 IT080 N3152 n1155 NE071 PS038 an288 SS038 LR043 FL036 BE043 N0081 N2137 BE043 LR041  
 PS039 SS039 AL040 FL036 KO047 BL056 IT060 U2060 NE080 IT070 KR064 KO055 BL070 N0084 IT068  
 BL068 NE068 KO055 N0083 N0082 N2127 N1116 N3154 N2133 N3150 N2133 N0082 N3149 U2067 N0105  
 U2070 N3145 N0083 N3151 N2133 N0080 N3151 N2133 N3150 N2133 N3150 N1118 N0083 N3141  
 N0085 N1114 N3145 N1131 N0082 n0109 N3150 BL060 IT069 KO046 KR065 KO055 BL070 NE064 an289  
 N2135 SS037 N0083 LR032 BE038 NE067 LR032 PS027 BE038 AL030 N0080 SS037 FL032 KR060 N1115  
 NE076 N0085 IT070 BE035 LR032 SS038 N0080 NE066 IT075 N0082 NE068 SS039 NE066 N0083 N2129  
 U2064 NE068 NE073 N1115 BE043 N3165 N0095 U2070 NE066 NE063 n0131 NE064 U2060 U2060 NE067  
 BE039 KR062 BL062 KO056 NE067 AL029 N0080 N1110 ne102 N0075 LR029 AN286 WP355 SS040 AN358  
 WP348 N0080 N2130 NE070 KO050 IT070 NE066 FL025 BE037 WP332 KI033 PS027 FE005 U2064 N0080  
 AL031 BE034 LR033 DS017 SS030 FE012 KR062 AL027 FL041 KI025 LR032 AN358 BE036 DS021

42=GM

51.71N 132.96E 483 133 52deg 52 163 of 163 bearings  
 1465.00 1466.00 1467.00 1468.00 1469.00 1470.00 1471.00 1472.00 1473.00 1474.00  
 1475.00 1476.00 1477.00 1478.00 1479.00 1480.00 1481.00 1482.00 1483.00 1484.00  
 1485.00 1486.00 1487.00 1488.00 1489.00 1490.00 1491.00 1492.00 1493.00 1494.00  
 1495.00 1496.00 1497.00 1498.00 1499.00 1500.00 1501.00 1502.00 1503.00 1504.00  
 1505.00 1506.00 1507.00 1508.00 1509.00 1510.00 1511.00 1512.00 1513.00 1514.00  
 1515.00 1516.00  
 AN291 WP313 LV317 AN290 WP317 KI330 LV315 AN290 WP321 AN291 WP312 DS328 WP315 AN298 FE318  
 WP319 LV323 AN287 WP318 WP316 LV321 AN296 AN289 DS323 WP316 LV319 WP314 LV320 AN293 FE309  
 AN292 FE312 LV319 AN294 FE315 WP317 LV310 WP317 WP326 DS324 AN289 LV321 LV322 WP318 LV318  
 DS324 DS328 FE310 WP317 AN296 AN290 WP319 LV325 AN291 WP324 GI320 FE319 WP322 LV325 AN294  
 AN290 DS323 WP317 AN287 WP319 AN290 DS325 WP318 LV320 AN295 FE311 DS327 FE315 WP316 WP317  
 LV319 AN294 GI327 LV323 AN294 WP320 LV319 AN291 FE313 WP315 LV325 FE315 LV320 DS326 AN289  
 DS324 KI322 AN289 LV321 WP317 FE315 LV321 DS328 AN293 AN295 DS328 FE315 WP317 LV322 WP315  
 LV324 AN294 WP315 GI345 LV020 WP315 LV324 AN295 DS329 GI004 AN295 DS329 AN294 LV324 AN296  
 WP318 WP315 FE320 LV323 GI336 LV323 WP317 KI290 LV324 DS326 FE317 LV324 AN295 FE317 FE318  
 AN295 WP316 LV322 FE313 LV322 DS323 AN288 FE314 DS329 AN294 DS326 FE318 AN294 FE316 WP316  
 LV323 AN295 FE311 LV324 AN294 DS322 FE310 LV321 AN288 DS324 WP313 AN295 LV323

43=GR

50.65N 136.92E 392 90 51deg 71 252 of 253 bearings  
 1517.00 1518.00 1519.00 1520.00 1521.00 1522.00 1523.00 1524.00 1525.00 1526.00  
 1527.00 1528.00 1529.00 1530.00 1531.00 1532.00 1533.00 1534.00 1535.00 1536.00

1537.00 1538.00 1539.00 1540.00 1541.00 1542.00 1543.00 1544.00 1545.00 1546.00  
 1547.00 1548.00 1549.00 1550.00 1551.00 1552.00 1553.00 1554.00 1555.00 1556.00  
 1557.00 1558.00 1559.00 1560.00 1561.00 1562.00 1563.00 1564.00 1565.00 1566.00  
 1567.00 1568.00 1569.00 1570.00 1571.00 1572.00 1573.00 1574.00 1575.00 1576.00  
 1577.00 1578.00 1579.00 1580.00 1581.00 1582.00 1583.00 1584.00 1585.00 1586.00  
 1587.00  
 LV318 KI320 DS324 WP310 AN287 WP318 FE312 WP315 AN289 DS324 FE313 LV316 AL344 AN292 DS323  
 AN291 DS321 FE312 LV313 LV316 AN290 DS322 AN288 WP317 FE313 DS321 LV317 AN289 DS325 FE312  
 LV321 AN290 FE310 LV320 AN289 DS325 LV319 AN289 DS325 LV319 LV318 FE312 AN290 DS323 LV319  
 AN288 FE312 LV315 KI328 DS323 DS324 LV319 AN290 AN290 LV319 DS324 LV314 FE310 AN290 WP320  
 AN290 WP320 LV318 LV316 AN290 DS325 FE311 WP321 AN290 LV317 DS324 AN289 DS316 WP318 GI328  
 WP318 DS319 AN290 LV321 FE310 LV318 DS301 WP322 AN290 AN289 DS323 LV322 WP315 AN290 LV318  
 WP317 DS321 FE311 KI329 AN289 FE312 KI330 AN289 WP317 KI330 LV319 DS326 FE311 GI001 AN288  
 DS322 FE313 LV318 AN288 FE313 GI332 WP315 AN288 DS323 FE312 WP314 AN291 FE312 KI329 LV320  
 AN288 DS324 WP311 FE314 AN290 WP316 KI331 LV322 DS324 FE315 AN290 DS325 LV319 WP316 KI330  
 DS324 AN308 AN289 DS325 DS324 FE316 LV320 AN290 AN288 DS325 FE313 GI320 WP319 LV319 AN290  
 DS322 LV318 FE312 KI325 AN290 WP323 AN289 DS321 WP314 DS323 AN289 WP319 LV318 AN287 WP316  
 AN289 AN287 DS327 LV335 AN289 DS325 FE312 WP317 LV318 AN289 DS322 FE312 LV321 LV318 AN288  
 ds133 FE314 AN289 DS323 LV320 AN289 DS323 FE312 WP313 LV319 AN291 DS324 FE312 WP315 AN319  
 WP315 LV319 AN289 WP314 LV320 FE312 LV312 AN289 DS323 WP316 AN289 DS323 FE315 KI327  
 DS323 AN290 DS322 FE311 WP312 FE314 LV320 DS325 DS321 FE312 WP315 LV316 AN288 DS336 FE311  
 LV318 DS322 DS323 FE313 KI330 LV318 PS337 DS323 FE313 LV319 SS033 LV317 DS319 DS321 FE313  
 LV317 FE310 AN289 WP320 AN290 WP320 AN290 LV319 FE310 AN290 FE312 LV319 DS323

44=GU

53.10N 59.40E 1756 373 104deg 3 9 of 9 bearings  
 1589.00 1590.00 1591.00  
 KO068 KR050 LV345 AN330 DS032 FE351 FE344 WP319 LV346

45=HM

56.17N 37.08E 52 18 97deg 30 67 of 80 bearings  
 1592.00 1593.00 1594.00 1595.00 1596.00 1597.00 1598.00 1599.00 1600.00 1601.00  
 1602.00 1603.00 1604.00 1605.00 1606.00 1607.00 1608.00 1609.00 1610.00 1611.00  
 1612.00 1613.00 1614.00 1615.00 1616.00 1617.00 1618.00 1619.00 1620.00 1621.00  
 IT068 KO051 IT068 KR065 n3132 U2062 n1100 N0080 NE067 U2065 N0085 NE065 U2065 NE069 BL069  
 ko060 N0084 NE068 IT065 KO050 N0080 AN350 WP336 n1103 n3111 N2131 IT068 KO050 BE039 FL032  
 n3132 N2123 N1127 n3169 n3168 N0082 N1120 N2135 U2060 NE065 NE072 N0082 KR064 U2065 U2065  
 N0097 ne084 U2067 NE068 KR063 NE078 AN350 N0083 n2118 BL070 KR065 IT069 NE064 NE072 KR064  
 ko060 N0090 n0108 NE068 NE068 N0075 NE069 KR064 KR064 NE068 N0090 KR060 KO062 N0090 N3145  
 IT071 KR066 BL066 N0076 n3138

46=HP

54.52N 23.57E 229 53 115deg 2 3 of 4 bearings  
 1622.00 1623.00  
 N0106 ne080 NE071 N0105

47=IB

55.10N 54.82E 379 95 119deg 4 8 of 10 bearings  
 1624.00 1625.00 1626.00 1627.00  
 N2110 N1097 BK063 N0077 NE066 n0130 NE064 it090 NE063 U2062

48=IG

51.84N 139.97E 382 88 52deg 65 212 of 212 bearings  
 1629.00 1630.00 1631.00 1632.00 1633.00 1634.00 1635.00 1636.00 1637.00 1638.00  
 1639.00 1640.00 1641.00 1642.00 1643.00 1644.00 1645.00 1646.00 1647.00 1648.00  
 1649.00 1650.00 1651.00 1652.00 1653.00 1654.00 1655.00 1656.00 1657.00 1658.00  
 1659.00 1660.00 1661.00 1662.00 1663.00 1664.00 1665.00 1666.00 1667.00 1668.00  
 1669.00 1670.00 1671.00 1672.00 1673.00 1674.00 1675.00 1676.00 1677.00 1678.00  
 1679.00 1680.00 1681.00 1682.00 1683.00 1684.00 1685.00 1686.00 1687.00 1688.00  
 1689.00 1690.00 1691.00 1692.00 1693.00  
 LV317 FE310 AN290 AN289 FE313 WP317 LV314 WP318 DS321 LV318 FE312 AN290 FE313 WP311 LV316  
 AN291 AN289 FE311 LV313 AN299 FE312 AN289 FE314 LV318 AN290 WP320 LV319 FE309 LV317 WP321  
 LV320 AN290 DS323 FE314 AN282 WP323 FE310 AN291 LV321 DS322 AN291 FE310 WP330 LV319 FE311  
 AN289 WP312 FE312 AN287 AN288 FE311 AN289 FE311 FE313 AN286 AN288 DS323 LV318 FE313 DS323  
 LV319 LV317 FE310 AN291 AN289 FE312 DS323 LV317 FE310 FE309 AN290 LV317 DS323 LV320 FE309

AN290 FE309 AN289 FE307 LV319 DS322 AN289 FE311 FE312 AN290 DS325 LV318 WP318 FE310 AN290  
 LV316 DS322 LV316 AN291 WP322 FE313 DS325 WP315 AN290 KI331 AN291 WP318 AN290 WP318 FE325  
 KI328 LV320 DS322 FE315 WP323 AN289 LV320 FE014 WP317 AN290 DS323 AN291 DS322 LV314 LV320  
 FE313 AN290 WP316 DS320 AN290 DS326 FE313 WP315 AN291 DS323 FE311 WP316 AN290 DS326 AN290  
 DS321 LV319 AN291 DS324 LV318 WP315 FE313 FE312 WP314 LV318 DS318 AN290 AN289 DS322 FE312  
 WP313 LV321 FE311 AN291 AN289 DS322 FE312 AN288 WP315 AN289 LV317 GI022 WP318 AN290 DS322  
 WP318 AN290 FE313 DS323 KI328 WP317 LV318 AN290 FE315 LV320 AN289 DS321 KI329 WP313 LV319  
 DS323 FE311 LV318 DS323 WP316 FE313 AN290 DS323 WP320 LV320 AN288 DS322 LV319 FE312 WP316  
 LV317 DS322 WP318 AN288 AN287 WP317 AN289 DS325 FE313 KI326 FE311 PS039 AN289 DS328 FE314  
 AN290 FE311

49-IR 53.53N 48.52E 338 108 133deg 4 7 of 9 bearings  
 1695.00 1696.00 1697.00 1698.00  
 N0088 N2120 n0107 n2138 N2117 N1110 U2064 U2064 NE072

50-K7 44.04N 22.78E 51 11 137deg 44 123 of 133 bearings  
 1700.00 1701.00 1702.00 1703.00 1704.00 1705.00 1706.00 1707.00 1708.00 1709.00  
 1710.00 1711.00 1712.00 1713.00 1714.00 1715.00 1716.00 1717.00 1718.00 1719.00  
 1720.00 1721.00 1722.00 1723.00 1724.00 1725.00 1726.00 1727.00 1728.00 1729.00  
 1730.00 1731.00 1732.00 1733.00 1734.00 1735.00 1736.00 1737.00 1738.00 1739.00  
 1740.00 1741.00 1742.00 1743.00  
 IT134 KR120 BL140 KO110 NE110 N0136 N1160 N0132 N1158 N2174 N0136 N2174 ne076 n0088 IT138  
 BL132 KR121 IT132 BL135 KO104 N2157 n0114 FE022 AL043 AN004 AN008 FE021 KR120 BL138 IT138  
 KO106 BK116 NE111 KO100 IT130 KO106 IT127 KR118 KR120 IT135 BL137 KO112 KR135 IT135 BL140  
 KO105 IT131 IT137 BL140 KO108 IT133 BL135 KR118 IT133 KR113 IT130 KR116 KR119 IT134 KO107  
 N0130 N0135 N3180 BE056 LR052 PS047 KR120 IT137 BL140 KO109 BE055 FL045 PS042 U2113 U2113  
 NE109 BL130 NE109 N2165 KO105 kr135 KR120 KR120 ne071 BL139 N2150 NE109 IT135 BL130 KO115  
 KR120 AN007 BE058 PS043 AL046 BL140 IT138 KR120 KO105 BL137 KO105 IT135 BL145 kr102 FL043  
 LR050 PS041 n3142 n1127 BE047 PS042 BE052 FL040 AL046 PS044 N3175 AL042 BE056 LR051 PS047  
 FL047 LV025 FL039 LR051 BE057 KR120 IT130 BL138 ne082 N2170 NE110 AN005 ne070

51-KB 52.06N 139.07E 499 94 51deg 71 276 of 278 bearings  
 1744.00 1745.00 1746.00 1747.00 1748.00 1749.00 1750.00 1751.00 1752.00 1753.00  
 1754.00 1755.00 1756.00 1757.00 1758.00 1759.00 1760.00 1761.00 1762.00 1763.00  
 1764.00 1765.00 1766.00 1767.00 1768.00 1769.00 1770.00 1771.00 1772.00 1773.00  
 1774.00 1775.00 1776.00 1777.00 1778.00 1779.00 1780.00 1781.00 1782.00 1783.00  
 1784.00 1785.00 1786.00 1787.00 1788.00 1789.00 1790.00 1791.00 1792.00 1793.00  
 1794.00 1795.00 1796.00 1797.00 1798.00 1799.00 1800.00 1801.00 1802.00 1803.00  
 1804.00 1805.00 1806.00 1807.00 1808.00 1809.00 1810.00 1811.00 1812.00 1813.00  
 1814.00

FE311 DS321 AN294 DS322 WP321 AN291 WP321 LV319 FE311 WP315 AN289 DS323 FE310 LV319 DS321  
 FE313 GI328 lr155 AL335 DS324 AN290 FE312 DS321 AN289 FE312 AN288 GI328 LV319 AN288 LV322  
 FE311 DS324 FE312 AN289 DS324 AL337 GI329 PS339 FE312 DS323 GI329 LV319 AN290 DS323 LV319  
 GI329 AN290 FE312 AN295 DS325 DS324 AN296 FE312 FE312 DS319 AN290 WP320 FE310 KI327 GI320  
 AN291 LV318 DS321 DS321 AN290 LV317 LV321 FE313 DS322 AN289 LV316 FE311 DS325 WP315 AN290  
 WP315 FE312 AN288 AN288 DS323 WP313 AN291 FE313 WP314 LV319 AN289 LV318 DS321 FE311 WP323  
 KI328 LV316 AN287 FE309 LV319 AN289 DS324 FE313 WP320 LV318 AN291 DS323 LV319 FE312 AN288  
 DS322 FE312 WP313 KI321 LV320 LR340 PS041 AN289 FE313 WP317 LV028 DS324 AN289 WP314 KI329  
 FE312 WP317 LV319 DS322 AN288 AN289 DS325 WP323 LV315 KI328 LV317 WP315 AN288 FE312 AN289  
 DS323 FE313 WP322 LV318 LV315 AN289 FE312 SS343 LV313 FE312 AN289 AN290 LV316 AL331 LV317  
 FL334 AN290 AN289 DS321 FE313 FL339 AN291 WP321 LV320 AL337 AN289 WP315 LV317 AN290 FE310  
 LV320 AN289 FE313 WP319 LV322 AN289 DS323 FE313 LV320 AN289 DS322 FE313 WP313 KI320 LV320  
 AN288 DS324 WP313 LV316 AN289 FE311 PS337 GI328 WP312 WP314 FE312 LV322 AN289 DS323 AN315  
 DS335 WP316 AN289 LV314 FE310 AN289 LV320 DS323 AN291 DS323 WP314 AN287 DS043 FE312 WP312  
 LV322 WP315 LV318 PS038 AN289 FE311 LV316 AL034 AN290 KI331 GI328 WP319 FE312 AN289 LV322  
 WP315 DS322 WP322 LV315 AN289 DS323 FE313 WP318 LV320 AN289 GI357 AN289 FE312 AN290 FE312  
 FE311 AN290 LV319 FE307 LV316 AN289 DS321 AN290 FE313 AN289 FE312 FE312 WP327 DS321 LV320  
 AN291 AN288 DS322 LV322 DS323 FE313 LV316 AN290 DS325 FE312 wp136 LV321 AN290 FE314 WP325  
 AN290 GI328 DS321 LV315 AN290 FE315 WP324 LV320

52=KD

56.00N 35.72E 31 9 90deg 60 217 of 226 bearings  
 1815.00 1816.00 1817.00 1818.00 1819.00 1820.00 1821.00 1822.00 1823.00 1824.00  
 1825.00 1826.00 1827.00 1828.00 1829.00 1830.00 1831.00 1832.00 1833.00 1834.00  
 1835.00 1836.00 1837.00 1838.00 1839.00 1840.00 1841.00 1842.00 1843.00 1844.00  
 1845.00 1846.00 1847.00 1848.00 1849.00 1850.00 1851.00 1852.00 1853.00 1854.00  
 1855.00 1856.00 1857.00 1858.00 1859.00 1860.00 1861.00 1862.00 1863.00 1864.00  
 1865.00 1866.00 1867.00 1868.00 1869.00 1870.00 1871.00 1872.00 1873.00 1874.00  
 IT071 KO065 BL080 NE064 N0085 IT070 BL070 KO048 AL030 AN356 BE034 LR025 AL031 FL035 KI022  
 IT070 KO052 BL070 KR064 N0082 N3151 N1118 n2128 AL029 LR033 U2063 U2063 N0085 BL070 KO054  
 BL068 IT070 KR062 ko047 N0090 U2066 AL043 be090 SS041 NE068 NE066 U2067 N0090 KR066 BL070  
 NE068 NE066 N0088 BL067 IT070 KO055 KR062 KR065 IT068 BL065 KO062 NE069 NE069 N0085 NE069  
 N3151 NE066 LR054 SS048 N0087 N2143 U2066 AN346 N0084 KO048 IT072 BL065 n0144 NE061 N0090  
 NE061 n0101 n0112 N2140 N0090 U2067 NE072 KR062 IT070 KO047 BL067 N0085 SS039 NE074 U2062  
 NE071 BK065 U2066 NE070 SS039 KO047 BL067 KR062 IT070 BE039 SS042 NE067 U2064 BL067 IT070  
 KO047 KR062 IT070 KR062 KO047 BL067 BK065 N2135 U2066 N0085 NE069 BL070 IT063 KR070 KO058  
 NE068 N2137 BK062 U2070 NE070 BL070 IT075 KO056 N3150 BK062 N0090 NE069 N0085 N1118 BL065  
 IT077 KO058 KR066 N0093 NE066 BL067 IT077 KO058 KR066 NE069 N0082 NE068 N0085 IT077 KO056  
 KR066 BL067 NE070 n3170 NE069 LR054 SS038 BE040 FL044 NE076 U2066 NE068 N0087 PS031 FL033  
 ko059 BL069 N0085 KR066 BL070 IT070 KO047 KR062 N0084 BL069 KO050 KR065 IT070 KO047 IT072  
 KR060 BL069 BL067 KO047 U2065 N0090 U2065 NE065 N0079 U2062 U2062 NE064 BK062 NE057 NE067  
 IT068 BL070 KR064 KO052 BK064 U2065 SS038 NE066 NE069 N0095 U2067 U2067 NE068 N0088 NE068  
 U2065 NE064 IT070 BL070 N0083 NE070 KO040 KR073 AL033 LR032 GI027 BE037 LR030 FE012 AL030  
 FL030

53=KM

41.15N 43.82E 325 64 131deg 8 30 of 31 bearings  
 1882.00 1883.00 1884.00 1885.00 1886.00 1887.00 1888.00 1889.00  
 N0090 KO090 AN349 N2135 AL036 FL040 GI045 LR041 AN348 U2097 FL038 AL033 N0105 ne079 N1130  
 N0095 NE093 BL108 IT109 AL040 KO094 KR098 SS044 N0100 PS036 AL038 BE038 LR038 FL037 AL040  
 AN348

54=KU

53.54N 145.47E 443 96 55deg 30 109 of 109 bearings  
 1890.00 1891.00 1892.00 1893.00 1894.00 1895.00 1896.00 1897.00 1898.00 1899.00  
 1900.00 1901.00 1902.00 1903.00 1904.00 1905.00 1906.00 1907.00 1908.00 1909.00  
 1910.00 1911.00 1912.00 1913.00 1914.00 1915.00 1916.00 1917.00 1918.00 1919.00  
 FE312 AN286 WP310 AN288 KI325 DS326 FE309 DS319 LV317 WP316 LV317 DS312 AN287 FE310 LV316  
 AN287 DS018 GI324 DS324 LV317 AN288 FE309 DS323 AN288 LV317 LV316 DS324 FE308 WP327 AN288  
 AN289 DS322 FE308 LV316 AN289 FE312 AN287 FE312 LV316 WP322 DS324 DS320 AN287 FE309 AN288  
 DS320 WP310 LV317 AN289 DS321 WP311 LV317 AN320 DS321 WP312 AN291 DS320 FE313 KI328 AN289  
 AN289 WP311 LV312 AN286 WP330 DS320 LV322 FE310 AN287 DS319 KI327 DS322 FE310 KI328 LV315  
 LV007 DS320 DS320 LV315 AN286 FE308 FE310 AN288 DS321 KI328 LV315 GI001 WP312 KI328 FE311  
 AN287 DS318 LV315 WP311 AN294 DS316 LV321 FE310 DS321 WP315 AN287 AN287 DS318 FE308 WP310  
 LV316 AN296 DS318 GI028

55=KV

57.98N 32.42E 85 40 89deg 5 9 of 13 bearings  
 1920.00 1921.00 1922.00 1923.00 1924.00  
 U2055 N0080 N0085 n2122 N3159 n0092 N2140 N0084 KR058 IT061 KO044 it056 ko022

56=L4

44.51N 23.62E 62 14 131deg 17 59 of 59 bearings  
 1925.00 1926.00 1927.00 1928.00 1929.00 1930.00 1931.00 1932.00 1933.00 1934.00  
 1935.00 1936.00 1937.00 1938.00 1939.00 1940.00 1941.00  
 KO107 IT131 BL136 KR115 KO100 KR115 N3180 N0130 KO102 BL128 IT132 KR105 BE053 AL040 SS052  
 U2106 IT122 BL138 NE106 KO104 IT129 KR116 BK111 KO106 IT132 KR115 NE104 IT130 KR116 BL130  
 KO105 BL130 IT133 KR115 KO104 BL130 KO106 IT130 KR113 KO104 BL132 KO104 KR113 IT130 BL133  
 IT130 BL140 KO100 KR115 IT133 KO105 N0135 N3178 U2108 AN003 SS049 FL046 BE055 DS029

57=L8

48.82N 16.65E 37 13 132deg 21 66 of 69 bearings  
 1942.00 1943.00 1944.00 1945.00 1946.00 1947.00 1948.00 1949.00 1950.00 1951.00  
 1952.00 1953.00 1954.00 1955.00 1956.00 1957.00 1958.00 1959.00 1960.00 1961.00  
 1962.00  
 AN008 AL042 FL043 PS042 U2102 KO092 U2104 N0142 ne068 ne068 NE102 U2103 N2180 AL045 PS042

KO080 BL138 IT141 KR107 NE103 U2102 ne066 SS040 FL041 N2180 NE098 U2106 N0140 NE106 N0142  
N3194 NE106 U2105 BE051 SS057 DS031 AN007 LR044 BE050 BK106 KR114 N0141 U2105 NE105 N0150  
U2102 NE105 KR110 N0143 IT138 BL143 U2105 NE104 N0130 U2102 NE101 U2102 N0140 U2104 SS042  
BE053 N0140 NE096 IT136 BL145 KR111 KR110 IT136 BL144

58=LF

45.33N 71.16E 1165 255 147deg 3 7 of 7 bearings  
1964.00 1965.00 1966.00  
FE354 WP328 N2102 NE072 N0082 AN325 WP328

59=LG

50.45N 22.94E 102 23 106deg 21 50 of 57 bearings  
1967.00 1968.00 1969.00 1970.00 1971.00 1972.00 1973.00 1974.00 1975.00 1976.00  
1977.00 1978.00 1979.00 1980.00 1981.00 1982.00 1983.00 1984.00 1985.00 1986.00  
1987.00  
AL023 LR048 N0121 N2162 NE087 PS002 FE020 AN343 BE030 U2090 KR090 PS039 LR044 NE085 PS039  
ne070 ko030 BE044 FL042 gi183 SS041 U2090 ne070 BE041 NE089 FL035 BL106 KO070 N0120 U2088  
NE088 U2087 SS041 AN008 NE091 U2089 FL038 AL040 PS040 LR043 NE085 U2087 ne080 U2089 n0077  
NE091 U2088 NE089 U2091 U2091 n0082 BL110 KO068 KR092 IT116 GI033 BE041

60=LK

50.09N 60.79E 153 28 118deg 71 273 of 273 bearings  
1989.00 1990.00 1991.00 1992.00 1993.00 1994.00 1995.00 1996.00 1997.00 1998.00  
1999.00 2000.00 2001.00 2002.00 2003.00 2004.00 2005.00 2006.00 2007.00 2008.00  
2009.00 2010.00 2011.00 2012.00 2013.00 2014.00 2015.00 2016.00 2017.00 2018.00  
2019.00 2020.00 2021.00 2022.00 2023.00 2024.00 2025.00 2026.00 2027.00 2028.00  
2029.00 2030.00 2031.00 2032.00 2033.00 2034.00 2035.00 2036.00 2037.00 2038.00  
2039.00 2040.00 2041.00 2042.00 2043.00 2044.00 2045.00 2046.00 2047.00 2048.00  
2049.00 2050.00 2051.00 2052.00 2053.00 2054.00 2055.00 2056.00 2057.00 2058.00  
2059.00  
N0085 KR073 IT076 BL075 KO069 BE027 FL038 GI027 NE095 WP325 LV350 N0080 N0078 U2064 NE070  
DS356 GI036 KO062 IT078 KR072 BL079 N0085 BE042 N0079 FE345 LV350 DS357 U2067 KR069 IT076  
BL075 KO055 N0077 NE075 N0075 N1090 AN331 FE348 WP323 U2068 NE069 U2066 U2066 N0080 KO069  
IT047 NE073 N0075 U2068 NE075 KO064 BL075 IT073 KR072 NE069 KO064 N0075 U2057 KO055 KR072  
NE068 BE027 AL012 BK068 N0078 NE070 KO067 BL076 IT073 KR071 BE026 WP318 KR072 KO064 IT073  
BL075 BE025 FL024 AL012 NE060 N0080 KO057 BL080 IT075 NE073 N0085 KR067 IT071 BL070 KO063  
NE070 IT071 WP324 AN324 LV317 WP324 NE074 AN330 WP320 N3110 N2107 N0078 AN325 WP321 WP322  
LV013 WP323 AN327 WP311 AN327 WP325 LV319 DS330 LV307 AN326 WP318 AN322 WP317 U2064 DS330  
U2066 KR074 N3103 KR071 BL075 KO066 KO068 BL080 IT074 U2075 N0075 BE045 SS038 NE072 KR072  
NE070 N0082 AL010 WP319 KR072 IT077 U2066 KR073 NE076 NE077 U2067 NE070 WP318 AL013 U2065  
NE075 U2068 NE070 KR071 DS358 U2066 NE077 DS001 LV358 DS008 WP348 BE044 GI002 PS022 NE094  
U2066 N0078 NE069 KR073 WP324 AL012 N1115 AL009 WP323 U2064 N1094 N2125 NE066 AN326 WP320  
NE088 U2070 NE072 WP326 AL009 AN333 U2068 N3110 NE068 KR073 BL080 KO069 N0075 U2068 WP326  
NE071 N0077 BK072 U2070 N1110 NE069 BL076 KR074 N3108 U2067 AN330 WP324 N0080 U2065 KR072  
IT075 BL074 KO061 NE070 N0080 U2068 NE089 N0075 U2065 NE095 NE091 N0080 LV345 WP321 DS355  
IT076 BL075 KO063 KR070 N0085 NE073 SS034 GI037 FL037 NE069 U2067 GI030 BK067 U2067 NE066  
DS356 WP323 FE343 KR072 BL078 N0075 KR072 IT087 BL091 KO069 NE070 U2061 N0075 U2063 NE078  
NE078 U2068 KR071 IT077 BL075 KO069 NE084 SS040 GI003 SS032 AL011 FE345 LR017 BE026 PS013  
BL079 KR072 IT078

61=LM

49.00N 26.33E 34 11 113deg 74 211 of 235 bearings  
2060.00 2061.00 2062.00 2063.00 2064.00 2065.00 2066.00 2067.00 2068.00 2069.00  
2070.00 2071.00 2072.00 2073.00 2074.00 2075.00 2076.00 2077.00 2078.00 2079.00  
2080.00 2081.00 2082.00 2083.00 2084.00 2085.00 2086.00 2087.00 2088.00 2089.00  
2090.00 2091.00 2092.00 2093.00 2094.00 2095.00 2096.00 2097.00 2098.00 2099.00  
2100.00 2101.00 2102.00 2103.00 2104.00 2105.00 2106.00 2107.00 2108.00 2109.00  
2110.00 2111.00 2112.00 2113.00 2114.00 2115.00 2116.00 2117.00 2118.00 2119.00  
2120.00 2121.00 2122.00 2123.00 2124.00 2125.00 2126.00 2127.00 2128.00 2129.00  
2130.00 2131.00 2132.00 2133.00  
BL115 KR097 IT113 KO084 BL118 KO076 BL110 IT116 KR098 KO080 IT114 KR098 KO076 BL110 IT116  
KR094 KO077 BL110 IT116 KR094 IT098 KO077 KR096 LR046 AL039 BE048 FL040 PS039 N1152 N0122  
N0119 N2162 n1131 U2091 NE091 N0116 KR095 BL115 N0122 N1152 N0115 N1148 N2160 NE091 SS041  
KO078 IT110 BL110 KR095 U2091 NE079 N0109 ne068 N3174 FL040 SS039 N1147 N0122 NE087 BE048

FL035 LR034 SS043 LR041 BE040 KO089 BL118 IT108 U2090 KO091 BL118 IT112 KR093 KO088 BL110  
 IT070 kr067 n0085 N3160 BE044 FLO37 LR043 PS042 IT105 KO075 U2088 NE089 FLO44 SS040 BE050  
 BE045 FLO36 ne070 BE047 LR044 FLO36 SS040 NE084 NE092 FLO42 KO081 BL110 KO084 NE088 ne068  
 U2091 BE041 LR045 SS032 BE045 FLO40 LR045 AL043 FLO44 PS043 BE030 FLO37 LR049 FLO35 BE040  
 BE049 FLO41 PS041 SS041 n0080 n3152 NE093 FLO39 SS042 AL040 U2092 ne069 KO070 NE091 AL038  
 FLO37 LR044 SS043 BE047 U2089 KR095 IT110 BL103 KO070 NE092 BE048 PS041 SS040 N0120 NE089  
 n0086 NE087 U2088 NE088 KR095 IT110 BL112 KO078 U2083 NE092 NE078 N0124 ne067 U2091 KO077  
 IT104 ne070 KR095 ne066 n0085 NE090 KO083 KR093 NE089 n0085 n0090 ne070 ne076 KR095 N0118  
 KR089 KO083 N0120 N1136 NE091 U2088 N0106 NE093 U2089 NE093 N1148 NE093 ne077 KO078 KR095  
 NE091 BE041 N0119 NE088 U2090 U2090 NE093 NE094 U2089 n0085 ne069 U2090 N0120 NE092 BK091  
 n3127 N0118 N3177 ne076 AL041 SS040 PS038 DS028 FLO38 IT106 KR092 KO084 NE088 N0120 U2088  
 NE086 IT112 KO084 BL113 U2087 N0120 N0115 N1140 ne072 AL040

62=M3            49.95N 16.10E 104 52 145deg 8 24 of 26 bearings  
 2135.00 2136.00 2137.00 2138.00 2139.00 2140.00 2141.00 2142.00  
 PS044 BE053 ko107 IT127 FLO46 AL046 PS042 SS046 AN359 AL044 BE054 PS044 AN359 FLO46 SS054  
 N1172 AN009 BE051 BE050 AL045 SS046 KI036 U2095 n0100 IT133 KR100

63=M7            42.83N 23.48E 134 27 138deg 4 10 of 12 bearings  
 2143.00 2144.00 2145.00 2146.00  
 IT137 BL141 KO111 KR117 U2112 ne109 N0135 U2113 BL139 KO110 KR120 u2115

64=MF            54.51N 40.59E 61 15 99deg 33 102 of 105 bearings  
 2154.00 2155.00 2156.00 2157.00 2158.00 2159.00 2160.00 2161.00 2162.00 2163.00  
 2164.00 2165.00 2166.00 2167.00 2168.00 2169.00 2170.00 2171.00 2172.00 2173.00  
 2174.00 2175.00 2176.00 2177.00 2178.00 2179.00 2180.00 2181.00 2182.00 2183.00  
 2184.00 2185.00 2186.00  
 N2133 LR029 SS046 KR069 BL072 BL075 KR070 It122 BL075 IT076 KO060 U2069 NE068 KR070 IT070  
 BL064 KO058 IT070 BL065 KO053 U2067 N0085 N2126 U2070 KR070 IT072 BL068 KO052 BK066 U2067  
 NE068 N2128 AL024 KO059 BL070 IT075 KR069 SS032 NE070 U2068 N2135 KO058 IT074 KR069 n2155  
 U2069 ne094 KO054 BL070 IT076 FE003 LR031 PS017 NE069 NE068 N0085 PS026 NE069 U2069 NE066  
 KO055 BL082 IT077 KR074 KO055 IT075 KR068 KO058 BL072 U2067 N0093 BK064 U2066 NE067 KR069  
 BL070 NE072 U2070 KO072 KR077 BL080 IT078 NE072 BL070 KO056 KR080 U2065 IT078 BL080 U2067  
 BL070 IT074 KR071 BL070 IT090 N0088 N2122 KR070 BL070 KR070 KO064 BL070 NE069 U2066 NE069

65=MG            45.15N 36.23E 210 50 125deg 6 18 of 21 bearings  
 2187.00 2188.00 2189.00 2190.00 2191.00 2192.00  
 U2093 NE091 KO090 KR095 AL038 BE046 AN352 N0103 N3169 ne084 KR096 IT109 N1130 AN359 FE346  
 N0113 n3166 N1133 N2145 ne077 KR095

66=MP            52.80N 11.22E 41 20 102deg 9 38 of 46 bearings  
 2193.00 2194.00 2195.00 2196.00 2197.00 2198.00 2199.00 2200.00 2201.00  
 U2091 SS040 FLO39 KR085 NE071 NE071 BE046 FLO33 LR042 PS039 SS044 NE069 BE048 FLO34 LR040  
 SS042 NE070 U2090 kr093 n2165 bl110 ko080 FLO35 LR045 BE047 PS039 SS041 l=050 U2092 U2092  
 BE050 CA058 FLO37 SS044 FLO35 NE078 IT106 ko088 KR090 n0110 U2092 NE091 IT109 ko083 U2090  
 NE091

67=MU            46.30N 61.46E 145 25 124deg 100 451 of 462 bearings  
 2202.00 2203.00 2204.00 2205.00 2206.00 2207.00 2208.00 2209.00 2210.00 2211.00  
 2212.00 2213.00 2214.00 2215.00 2216.00 2217.00 2218.00 2219.00 2220.00 2221.00  
 2222.00 2223.00 2224.00 2225.00 2226.00 2227.00 2228.00 2229.00 2230.00 2231.00  
 2232.00 2233.00 2234.00 2235.00 2236.00 2237.00 2238.00 2239.00 2240.00 2241.00  
 2242.00 2243.00 2244.00 2245.00 2246.00 2247.00 2248.00 2249.00 2250.00 2251.00  
 2252.00 2253.00 2254.00 2255.00 2256.00 2257.00 2258.00 2259.00 2260.00 2261.00  
 2262.00 2263.00 2264.00 2265.00 2266.00 2267.00 2268.00 2269.00 2270.00 2271.00  
 2272.00 2273.00 2274.00 2275.00 2276.00 2277.00 2278.00 2279.00 2280.00 2281.00  
 2282.00 2283.00 2284.00 2285.00 2286.00 2287.00 2288.00 2289.00 2290.00 2291.00  
 2292.00 2293.00 2294.00 2295.00 2296.00 2297.00 2298.00 2299.00 2300.00 2301.00  
 NE075 N0087 N2104 SS037 BE030 FLO25 LR023 PS020 N0085 SS032 FLO37 BE033 N0080 NE078 N0080  
 N0080 U2075 KO070 KR078 BL084 IT082 NE078 FE350 AN332 N0080 IT082 BL084 KO070 KR078 U2075

N0085 SS032 FL035 AN328 SS033 NE078 AN331 LR034 N0078 n0105 AN334 FL040 SS033 KO070 IT082  
 BL084 KR078 U2075 N0090 U2074 N0090 NE077 N2110 N1101 KR078 KO070 BL084 IT082 N2109 N1097  
 N0085 NE075 KO069 BL082 IT080 NE074 BE030 FL026 LR026 FE350 NE077 LR025 BE028 PS023 FL024  
 AL017 SS037 PS020 BE029 FL025 SS051 NE074 U2073 N0083 SS032 N2105 FE353 SS036 NE076 KO070  
 BL081 KR077 FL026 NE073 U2074 N0085 NE077 N0080 NE073 KO069 AL021 BE028 SS035 AN332 FL024  
 FE355 NE075 N0080 KO060 BL080 IT085 KR076 KO071 IT085 KR076 NE070 N0088 U2070 NE080 NE073  
 U2073 NE071 AN331 SS036 FL044 U2071 NE065 N0083 N0093 NE076 NE070 AN333 N0085 NE077 IT072  
 KR075 BL071 KO058 IT084 KO056 BL092 N0086 FL044 SS032 NE077 SS033 FL038 N1110 N0075 U2075  
 NE070 NE074 N0085 N1101 N2111 U2073 N2107 BL076 IT080 KR078 KO072 NE076 N1100 N0085 U2072  
 N2110 N1103 n1085 BE033 SS033 n0110 U2074 NE076 BL084 KR080 IT080 N0086 NE076 N0086 N1105  
 N2107 U2073 U2074 N0085 N2110 U2074 N0085 BL083 KO072 IT081 NE073 KR078 BK070 U2073 AL036  
 BE035 BL084 IT082 KR078 KO070 SS032 NE078 GI038 LR039 PS022 FL037 N0085 AN326 LV001 N0085  
 SS032 AN332 KO070 BL084 IT082 KR078 NE075 N2108 N1098 U2075 NE078 PS022 SS032 BE035 FL032  
 KR078 KO070 IT082 BL084 NE074 BL084 KO070 KR078 IT082 AN331 GI035 LR036 PS025 BE042 SS033  
 SS033 FL039 U2075 IT082 BL084 KO070 KR078 U2075 NE076 NE077 N0087 N2111 BL084 KO070 KR078  
 IT082 WP315 BE030 FL033 SS035 AL022 LR027 NE071 KO070 KR078 BL084 IT082 U2073 BE029 FL029  
 N0085 NE074 KR078 BL084 IT082 KO070 U2071 N0084 n1118 NE066 U2074 PS022 SS035 N0080 NE076  
 U2073 N0083 U2074 N0081 AL025 BE036 LR036 AN332 U2075 BE038 FL038 SS035 AN329 N0082 N1105  
 U2073 N0080 AN331 DS324 LV004 N0085 SS038 IT083 kr084 N0087 DS342 SS036 BE346 N0084 N0084  
 N3131 N0085 N1105 BE031 FL028 SS047 KR082 IT081 BL082 KO083 U2068 N0088 AN328 WP323 AN333  
 WP325 AN328 wp148 AN330 SS036 NE074 DS359 AN333 FE354 WP352 FL024 BE031 PS023 LR023 U2073  
 NE069 NE068 N0090 N0085 KR079 n3150 N1105 BE029 LR021 PS022 U2075 U2075 FL023 PS022 LR021  
 AL028 SS038 BE031 PS022 AL019 FL022 ne063 N0097 N0085 NE074 N0090 NE073 N0080 NE068 KR080  
 IT085 KO074 NE077 N0085 N1099 NE077 U2075 NE076 KR078 IT084 U2075 N0086 NE078 DS004 SS044  
 FE355 AN335 U2075 NE066 BK079 N0085 U2073 KO072 NE074 IT083 BL088 KR081 BK079 N1095 NE073  
 U2073 N0080 n3112 BK078 U2073 N1097 NE074 IT082 BL087 KR080 KO075 N0085 U2073 N0082 NE067  
 KR081 FL027 BE031 SS034 NE070 BK073 N0084 NE072 KR080 IT082 BL084 LR028 BE029 BK079 N0085  
 U2075 KR081 n0110 NE075 N1115 U2074 NE070 NE074 SS037 N0080 NE075 IT082 KO070 BL084 KR078  
 N3115 U2075 N0083 N0082 U2075 NE077 AN328 bk091 U2072 N0088 AL024 BE038

68=MW 41.70N 82.84E 2145 289 135deg 3 6 of 6 bearings  
 2302.00 2303.00 2304.00  
 BL075 IT075 FE312 WP317 N0072 N1092

69=MX 52.75N 14.51E 47 14 84deg 12 47 of 47 bearings  
 2305.00 2306.00 2307.00 2308.00 2309.00 2310.00 2311.00 2312.00 2313.00 2314.00  
 2315.00 2316.00  
 IT103 BL105 KR100 N0115 U2091 N0085 FL035 LR042 IT104 BL100 KO078 KR094 SS040 FL037 LR040  
 PS039 BE041 FL042 FE351 BE045 BE042 FL037 LR043 SS041 AL037 LR039 SS036 LR038 BE045 SS036  
 AL039 AL037 BE046 BE045 LR043 AL038 FL042 LR035 NE067 SS042 NE068 SS042 BE048 FL037 PS040  
 FL037 PS040

70=ND 27.49N 112.63E 3563 1679 156deg 2 6 of 7 bearings  
 2319.00 2320.00  
 AL343 FL346 LR346 LV318 PS340 n2039 NE060

71=NI 59.49N 31.44E 47 25 119deg 18 37 of 40 bearings  
 2321.00 2322.00 2323.00 2324.00 2325.00 2326.00 2327.00 2328.00 2329.00 2330.00  
 2331.00 2332.00 2333.00 2334.00 2335.00 2336.00 2337.00 2338.00  
 DS017 N0072 N0072 N1120 N2135 N0072 N2141 U2057 ne083 N0075 N1115 N3155 NE062 N0075 N2137  
 N0088 N2139 N1118 N0081 U2055 BE035 SS033 FL030 U2052 NE063 GI025 LR033 FE013 SS042 n0090  
 U2051 N2147 N1122 N0077 N0080 N1128 ne068 N2135 N0073 N1120

72=NS 46.61N 32.52E 98 17 121deg 38 127 of 138 bearings  
 2339.00 2340.00 2341.00 2342.00 2343.00 2344.00 2345.00 2346.00 2347.00 2348.00  
 2349.00 2350.00 2351.00 2352.00 2353.00 2354.00 2355.00 2356.00 2357.00 2358.00  
 2359.00 2360.00 2361.00 2362.00 2363.00 2364.00 2365.00 2366.00 2367.00 2368.00  
 2369.00 2370.00 2371.00 2372.00 2373.00 2374.00 2375.00 2376.00  
 KO088 IT109 kr195 IT108 BL107 N0110 N0111 AL036 FL038 ne068 AL030 BE035 KI028 LR044 N0110  
 PS034 LR041 FL036 BE041 N0110 n1128 IT115 KR099 IT103 BL108 KO060 KR097 U2096 FL037 SS042



n0085 U2095 n0085 FL037 PS039 BL108 IT110 U2095 FL037 SS042 FL037 SS042 KR099 IT107 BL108  
 KO090 FL039 KI035 LR040 PS043 n0080 FL037 SS042 KR098 IT111 IT111 BL112 KO086 FL039 LR042  
 PS042 SS041 FL035 PS040 SS042 U2093 U2096 N0110 KR097 IT112 BL110 KO082 BE051 FL037 NE095  
 KO088 BL108 IT110 KR100 BE048 FL039 LR043 PS040 AL029 BE050 FL037 PS023 PS036 LR042 AL036  
 BE047 FL037 ne070 FL039 BE044 NE081 KO093 NE092 KO093 BL120 IT117 KR097 SS045 FL038 BE045  
 N0102 N2162 FL036 BE046 ne073 BL108 U2092 BE045 U2092 FL038 BE047 N0109 KO070 SS044 FL038  
 PS038 AL035 N3154 N2140 N0102 KR095 BL110 n3105 n1125 N0110 N3161 SS045 PS043 GI018 FL017  
 ne075 KR096 N0112

73=NU

50.31N 136.63E 1195 348 52deg 3 8 of 8 bearings  
 2377.00 2378.00 2379.00  
 AN288 WP313 LV319 AN291 DS321 WP320 AN288 DS326

74=PB

47.77N 29.83E 40 10 119deg 100 342 of 363 bearings  
 2390.00 2391.00 2392.00 2393.00 2394.00 2395.00 2396.00 2397.00 2398.00 2399.00  
 2400.00 2401.00 2402.00 2403.00 2404.00 2405.00 2406.00 2407.00 2408.00 2409.00  
 2410.00 2411.00 2412.00 2413.00 2414.00 2415.00 2416.00 2417.00 2418.00 2419.00  
 2420.00 2421.00 2422.00 2423.00 2424.00 2425.00 2426.00 2427.00 2428.00 2429.00  
 2430.00 2431.00 2432.00 2433.00 2434.00 2435.00 2436.00 2437.00 2438.00 2439.00  
 2440.00 2441.00 2442.00 2443.00 2444.00 2445.00 2446.00 2447.00 2448.00 2449.00  
 2450.00 2451.00 2452.00 2453.00 2454.00 2455.00 2456.00 2457.00 2458.00 2459.00  
 2460.00 2461.00 2462.00 2463.00 2464.00 2465.00 2466.00 2467.00 2468.00 2469.00  
 2470.00 2471.00 2472.00 2473.00 2474.00 2475.00 2476.00 2477.00 2478.00 2479.00  
 2480.00 2481.00 2482.00 2483.00 2484.00 2485.00 2486.00 2487.00 2488.00 2489.00  
 IT075 bl063 N0113 N3168 BL105 NE080 KO086 N0110 n3104 N2152 n0088 N3150 BE047 LR044 GI028  
 SS040 AL039 N0112 N2141 KR097 IT110 BL110 KO089 N2148 AL040 KR096 N0118 LR043 BE046 SS037  
 BK093 N0111 IT115 NE093 N0120 BL110 KO085 IT110 ko100 SS040 LR044 FL039 PS038 AL039 FE010  
 BL108 it075 bl063 ko045 kr065 N0108 N3162 N0117 N3169 N1134 N2153 n0095 SS040 PS035 FL037  
 KR096 FL045 NE096 U2093 N1144 n0155 U2092 ne063 BL103 U2088 NE085 N0107 BL105 KR095 KR097  
 BL110 IT110 KO095 LR039 BE046 AL039 FL038 LR044 PS039 SS042 FL037 BE048 BE045 AL041 N0110  
 ne068 BE045 FL039 PS037 SS052 LR043 BE046 FL037 SS045 IT105 BL100 KO078 KR093 LR042 PS038  
 AL039 FL037 LR040 PS034 BE046 AL040 LR045 PS035 AL038 FL033 KR096 IT112 KO076 IT106 BL115  
 ne068 bk070 U2092 U2094 N3169 NE091 KO088 IT110 KR097 KO085 IT112 KR097 KO085 IT101 BL105  
 BE041 DS020 FE017 FL035 GI016 LR039 PS041 SS042 N3155 n0088 IT113 KO065 KR100 IT100 BL110  
 KO060 KR080 BE042 FL038 KR097 KO085 U2097 N0116 N0095 KR097 BL105 KO082 PS038 BE042 FL035  
 KR100 U2090 BE043 FL040 PS035 BE042 FL040 AL039 LR041 PS036 BE050 KI041 LR049 PS039 KO088  
 IT100 KR097 U2091 LV022 IT114 BL110 KO091 FE011 DS027 AN002 BE046 DS025 AL039 PS037 FE018  
 LV015 KI030 ne069 KI030 PS038 AN001 GI034 SS043 LR043 GI029 AL038 PS031 BE047 SS042 FL041  
 AL038 AN002 FE018 LV024 AL032 FL033 LR035 U2090 NE091 N2145 NE091 LV018 DS026 FL037 GI030  
 FE013 LR044 AL040 AN357 PS038 FE018 KI028 LV018 WP351 DS022 SS039 AN002 FL037 PS032 LR043  
 BE045 BE050 FL042 ne071 FL041 LR042 PS041 N0108 GI028 FE018 LV017 AL037 AN358 DS015 U2094  
 NE080 N0115 NE091 AN352 n2142 KR098 IT110 BL110 KO087 N0120 NE094 AL040 BE051 FL040 SS043  
 LR043 N1146 U2091 PS038 AL040 SS040 ne069 AL039 BE049 PS040 BK095 U2093 NE092 KR097 LR043  
 AL039 BE046 NE089 N2164 BE048 LR044 FE015 FL036 PS036 AL039 SS040 AN359 U2092 NE091 BL100  
 KR097 IT096 SS044 FL040 N0116 ne070 AN359 PS041 SS043 NE082 U2093 IT091 BL105 KO088 BE045  
 GI030 PS039 IT108 BL110 N0110 ne062 U2090 NE092 IT110 KR098 KO083 IT105 KR101 NE090 BK092  
 IT108 KR098 BL112 KO086 U2090 NE094 NE088 AL039 DS020 FE018 GI034 LR039 LV017 BE046 PS041  
 LR040 DS025 BE044 FL039 AL038 AL039 BE046 SS048 LR042 AL040 FL040 NE089 N0121 NE091 N3170  
 N1146 N2154 N0111

75=PF

59.70N 152.81E 331 68 65deg 37 105 of 105 bearings  
 2490.00 2491.00 2492.00 2493.00 2494.00 2495.00 2496.00 2497.00 2498.00 2499.00  
 2500.00 2501.00 2502.00 2503.00 2504.00 2505.00 2506.00 2507.00 2508.00 2509.00  
 2510.00 2511.00 2512.00 2513.00 2514.00 2515.00 2516.00 2517.00 2518.00 2519.00  
 2520.00 2521.00 2522.00 2523.00 2524.00 2525.00 2526.00  
 FE315 AN292 LV322 AN292 LV317 DS322 AN293 AN294 DS325 LV317 AN290 DS325 LV320 DS329 FE314  
 AN295 AN293 FE313 AN293 LV325 FE315 DS333 WP327 LV325 AN291 FE315 WP315 DS329 LV325 AN295  
 AN295 LV331 AN285 FE313 KI314 AN289 FE315 LV300 AN292 FE315 WP327 LV324 FE314 LV326 LV318  
 DS325 WP324 AN292 AN293 WP328 LV323 PS337 AN291 WP330 DS330 WP329 LV320 LV322 AN290 GI023  
 WP329 AN296 LV323 AN292 AN291 WP309 LV325 FE315 WP328 LV324 AN293 FE316 FL038 WP330 LV324

AN294 WP330 WP330 AN310 AN293 WP330 AN293 LV324 AN292 WP330 WP329 LV324 FE316 AN293 LV321  
FE315 DS330 WP328 DS327 GI327 LV319 WP329 LV323 DS322 AN290 AN294 GI033 WP329 FE315 WP329

76=PK

57.72N 47.28E 205 62 103deg 15 37 of 37 bearings  
2527.00 2528.00 2529.00 2530.00 2531.00 2532.00 2533.00 2534.00 2535.00 2536.00  
2537.00 2538.00 2539.00 2540.00 2541.00  
NE073 N2079 NE088 U2055 U2055 AN326 GI031 IT056 AN329 WP330 KR070 IT080 WP328 AN330 BL068  
NE071 AN345 U2060 NE074 U2051 NE059 N0063 IT066 K0058 WP312 AN334 U2053 N0085 N0080 WP332  
U2054 NE060 U2054 AL007 NE058 AL005 AN328

77=PL

49.61N 37.63E 86 37 124deg 20 65 of 65 bearings  
2542.00 2543.00 2544.00 2545.00 2546.00 2547.00 2548.00 2549.00 2550.00 2551.00  
2552.00 2553.00 2554.00 2555.00 2556.00 2557.00 2558.00 2559.00 2560.00 2561.00  
K0072 BL094 IT089 N0100 N2140 N1132 N2144 AN359 U2079 NE080 BE041 PS030 AL031 N2137 N3155  
GI024 FE011 GI029 FL032 AL035 NE076 N2141 U2082 N0112 DS020 BE043 FL038 LR037 LV020 N2139  
AN357 FL032 SS055 AL033 N2140 NE080 U2087 GI004 FE009 FE299 GI011 SS039 AN355 FE014 AN005  
FE014 N0105 FE014 AN358 PS033 LR037 GI028 KI028 AL313 BE039 AL029 KI029 BK083 N0105 BE042  
DS017 FL034 GI022 AN358 FE012

78=PM

59.33N 34.76E 975 167 80deg 2 4 of 4 bearings  
2562.00 2563.00  
FE007 SS037 NE055 AN359

79=R6

46.99N 20.93E 94 25 122deg 8 38 of 38 bearings  
2566.00 2567.00 2568.00 2569.00 2570.00 2571.00 2572.00 2573.00  
AN003 BE053 FL046 LR049 SS048 KR111 IT128 BL128 K0103 NE106 BL125 IT130 KR111 K0100 AL021  
AN359 BE053 DS026 LR040 LV026 BE053 FE023 KI033 BE053 FE021 AL033 KI034 PS041 GI032 WP353  
FE012 AN357 NE095 AN002 PS042 IT097 WP352 BE050

80=R9

48.39N 19.95E 62 20 116deg 17 59 of 61 bearings  
2574.00 2575.00 2576.00 2577.00 2578.00 2579.00 2580.00 2581.00 2582.00 2583.00  
2584.00 2585.00 2586.00 2587.00 2588.00 2589.00 2590.00  
GI039 PS043 U2101 U2101 KR103 NE098 U2099 U2099 KR103 IT123 K0081 LR042 PS042 BE051 BE051  
DS031 Ls070 n2109 LR046 AN008 GI041 U2100 KR099 IT126 BE051 AN004 DS033 AL041 PS044 NE099  
AN002 BE050 N0130 NE096 N2173 BL135 IT131 PS043 FL044 BE052 AN007 SS042 LS058 DS032 GI040  
N0130 N2175 U2101 BE048 LR051 CA051 PS038 LS067 KR105 K0105 U2096 NE095 N1163 N2178 GI040  
SS033

81=RB

54.98N 20.57E 19 8 81deg 54 169 of 190 bearings  
2592.00 2593.00 2594.00 2595.00 2596.00 2597.00 2598.00 2599.00 2600.00 2601.00  
2602.00 2603.00 2604.00 2605.00 2606.00 2607.00 2608.00 2609.00 2610.00 2611.00  
2612.00 2613.00 2614.00 2615.00 2616.00 2617.00 2618.00 2619.00 2620.00 2621.00  
2622.00 2623.00 2624.00 2625.00 2626.00 2627.00 2628.00 2629.00 2630.00 2631.00  
2632.00 2633.00 2634.00 2635.00 2636.00 2637.00 2638.00 2639.00 2640.00 2641.00  
2642.00 2643.00 2644.00 2645.00  
N0110 n3117 n3155 IT077 BL045 K0040 KR067 IT076 K0038 KR066 IT078 K0066 BL070 IT059 K0038  
n0144 N2170 N1156 N3186 BK058 n0090 U2065 NE070 N0110 U2075 N0117 NE068 KR065 IT075 BL054  
K0043 U2071 N0120 N1156 N2169 BL055 IT077 K0035 KR066 N0110 IT076 BL055 K0035 KR066 n1123  
N0108 BL055 IT076 U2070 N0080 BL060 KR061 U2068 N2168 U2069 N0110 KR063 K0035 IT077 BL055  
n2150 BL058 IT075 K0035 N0110 N3170 BL055 KR065 IT077 K0035 N2170 N0108 U2069 n0080 BL055  
IT070 K0036 KR063 U2073 n0075 K0038 KR066 BL052 IT073 U2070 N2165 N0095 n1128 U2070 n0085  
K0034 IT076 KR055 BL064 U2073 n0085 KR063 K0030 BL062 IT060 U2070 N2167 IT077 KR066 BL056  
K0035 N0110 N0108 N2158 U2075 U2075 U2068 n0085 U2070 NE069 N0114 NE069 N0107 N2157  
U2070 NE070 NE066 N2167 N0108 N0090 NE068 BL060 IT080 KR063 NE073 N0105 U2070 NE072 U2075  
NE066 U2075 N0090 U2066 NE067 U2069 NE065 IT076 BL078 U2067 NE069 N0090 N0092 U2070 NE071  
NE074 IT073 IT073 U2070 NE074 U2070 N0110 N0110 N2170 U2063 n2145 NE064 N1157 NE071 U2066  
U2066 U2068 NE072 N0100 IT080 NE067 n0080 U2070 NE066 U2067 KR063 n2135 n0085 AL039 n0085  
NE066 N0105 N2160 NE080 N0105 U2077 NE084 n0088 n0089 n2150

82=RD

37.62N 115.91E 2675 775 141deg 3 7 of 8 bearings

2646.00 2647.00 2648.00  
WP317 AN287 KR052 n3125 U2046 KR049 BL060 KO053

83=RQ

59.56N 30.47E 31 19 98deg 24 60 of 67 bearings  
2649.00 2650.00 2651.00 2652.00 2653.00 2654.00 2655.00 2656.00 2657.00 2658.00  
2659.00 2660.00 2661.00 2662.00 2663.00 2664.00 2665.00 2666.00 2667.00 2668.00  
2669.00 2670.00 2671.00 2672.00  
BL046 IT053 N0077 N1117 n0110 N2140 N1120 N0075 U2057 N0075 U2054 ne080 U2054 N3163 N0076  
U2056 U2056 BE040 SS037 ne074 N0080 U2060 U2060 NE064 N1122 N3165 U2053 N2135 ne068 U2056  
N2135 NE068 IT050 KR065 KO035 U2056 U2056 ne069 N3165 N0070 ne069 N0074 N3165 AL030 DS018  
BE042 FL036 AL041 FL032 SS046 KR051 KO042 FL031 PS031 AL032 ne070 U2053 U2060 NE053 N0073  
N1118 NE068 N0080 BE037 AN360 AL032 AN359

84=RS

44.62N 34.87E 23520 1706 132deg 2 7 of 7 bearings  
2673.00 2674.00  
AL036 BE046 FL040 LR048 PS042 BE046 FL040

85=RT

56.96N 25.28E 24 20 97deg 18 58 of 60 bearings  
2675.00 2676.00 2677.00 2678.00 2679.00 2680.00 2681.00 2682.00 2683.00 2684.00  
2685.00 2686.00 2687.00 2688.00 2689.00 2690.00 2691.00 2692.00  
N2145 N3165 N1145 N2155 IT064 KR057 AL031 AN006 BE040 DS018 U2062 NE059 N0095 N1134 N2161  
N0093 N1142 NE061 N2162 U2060 N3181 BL050 IT063 KR057 PS033 AL036 BE045 N0090 N2155 U2067  
N2155 AL022 GI009 SS034 BL050 IT062 KO038 KR067 N0090 NE080 BE041 DS020 FE015 FL032 LV021  
N0085 FL029 AL032 AN001 n3155 N3177 N2157 N3178 N0080 U2063 ne089 DS027 AL036 IT064 NE062

86=SS

50.26N 12.96E 42 19 117deg 7 15 of 19 bearings  
2694.00 2695.00 2696.00 2697.00 2698.00 2699.00 2700.00  
U2100 b1149 IT151 KO045 BK101 U2101 ne096 U2101 ne094 BK098 NE097 N0148 n1165 U2100 PS041  
SS035 FL042 BE050 PS042

87=S7

53.18N 14.94E 71 38 83deg 2 6 of 6 bearings  
2701.00 2702.00  
KO026 IT108 KR069 N0130 U2077 N0130

88=SF

56.61N 55.98E 122 35 109deg 24 64 of 65 bearings  
2703.00 2704.00 2705.00 2706.00 2707.00 2708.00 2709.00 2710.00 2711.00 2712.00  
2713.00 2714.00 2715.00 2716.00 2717.00 2718.00 2719.00 2720.00 2721.00 2722.00  
2723.00 2724.00 2725.00 2726.00  
IT062 BL067 KO068 BL080 KR080 KR055 IT063 BL064 KO057 BL070 IT062 NE068 N0070 N0073 N1103  
KR060 IT065 N3118 NE070 KO059 BL068 IT063 KO060 IT065 IT060 BL068 N3115 N0072 N0068 N3111  
N0080 N2110 KR060 KO052 N0070 N0076 U2062 NE062 KO051 KR060 NE061 KO052 N0085 KO054 BL065  
IT082 KR060 NE070 KO055 IT068 KR060 KR060 IT067 BL064 BL065 KR061 KO055 IT068 BL070 KO054  
U2065 N0068 n1110 N3121 N0070

89=SG

50.32N 129.83E 3623 1095 51deg 2 7 of 7 bearings  
2727.00 2728.00  
LV322 AN295 DS327 FE314 WP317 AN293 WP316

90=SM

49.87N 41.79E 97 23 115deg 30 87 of 89 bearings  
2729.00 2730.00 2731.00 2732.00 2733.00 2734.00 2735.00 2736.00 2737.00 2738.00  
2739.00 2740.00 2741.00 2742.00 2743.00 2744.00 2745.00 2746.00 2747.00 2748.00  
2749.00 2750.00 2751.00 2752.00 2753.00 2754.00 2755.00 2756.00 2757.00 2758.00  
U2075 N2125 IT085 BL090 it066 BL090 KR065 IT085 BL091 N0090 U2078 N1120 NE080 U2080 U2079  
N2137 NE083 U2080 NE085 KO070 BL090 IT088 U2081 NE081 FL036 AN356 IT087 BL090 KR082 KO076  
U2078 AN352 BE047 FE007 PS033 AL030 BE036 GI030 PS022 KR080 IT089 NE088 N0097 PS037 AL030  
AN359 KR077 IT080 IT091 KR080 AN350 FE009 LR034 LV015 NE073 NE066 N0098 N0090 KR082 IT086  
BL083 KO076 FE007 BE047 LV003 AN358 NE071 N0095 NE079 N0090 N3150 N2135 N0095 IT078 KR067  
ko059 N0099 KO078 KR085 NE079 NE078 KR083 N1120 N3147 BL090 KO080 IT088 FE004 LV001

91=ST

58.45N 27.69E 136 31 79deg 4 11 of 11 bearings

2760.00 2761.00 2762.00 2763.00  
U2056 N0082 KR050 NE054 U2055 NE062 U2056 IT054 KR052 U2055 KR052

92=SU

48.08N 50.67E 375 68 117deg 9 27 of 27 bearings  
2764.00 2765.00 2766.00 2767.00 2768.00 2769.00 2770.00 2771.00 2772.00  
IT088 KO074 N0089 IT090 KR090 NE093 SS035 KR085 N0088 N3121 NE060 AN330 SS037 AN330 NE074  
KI006 AL013 GI003 AN329 BE038 IT100 BL093 KR084 BL086 NE077 BK071 N0087

93=TK

45.24N 61.37E 200 45 129deg 57 207 of 207 bearings  
2773.00 2774.00 2775.00 2776.00 2777.00 2778.00 2779.00 2780.00 2781.00 2782.00  
2783.00 2784.00 2785.00 2786.00 2787.00 2788.00 2789.00 2790.00 2791.00 2792.00  
2793.00 2794.00 2795.00 2796.00 2797.00 2798.00 2799.00 2800.00 2801.00 2802.00  
2803.00 2804.00 2805.00 2806.00 2807.00 2808.00 2809.00 2810.00 2811.00 2812.00  
2813.00 2814.00 2815.00 2816.00 2817.00 2818.00 2819.00 2820.00 2821.00 2822.00  
2823.00 2824.00 2825.00 2826.00 2827.00 2828.00 2829.00  
N2102 N0086 N0085 N1110 AN329 WP321 KO079 BL089 KR083 N0085 N1105 N0090 N1115 KR082 IT087  
BL090 KO076 N0090 N0091 N2103 N0086 N2107 AN332 FE358 WP325 BE035 FL038 SS040 WP328 N0110  
BE032 FL033 PS022 SS041 WP328 LV354 FE351 BE034 CA031 FL031 GI016 KI018 PS022 U2081 N0094  
N3129 FL031 KI039 SS042 BE030 GI014 PS022 U2082 N0075 N1095 N0089 N3122 NE080 N1102 NE065  
IT082 U2078 NE071 U2076 U2076 FL042 SS041 N2110 N2110 NE071 NE076 IT080 BL075 KO050 NE077  
U2075 U2074 N0085 U2074 IT081 KR080 NE079 N2110 SS043 NE073 IT085 BL085 KO069 NE069 IT080  
FL034 N0085 IT080 KO081 N2111 NE076 NE067 NE069 N0090 IT082 U2078 NE071 AN330 SS042 IT082  
BL080 KO082 IT083 BL070 IT072 N0089 NE080 U2075 KR080 IT081 BL080 KO082 N0078 SS040 FL037  
AL033 NE080 AN289 PS022 AL034 NE080 NE080 U2080 AN336 LV320 DS348 WP318 AN332 AN332 SS041  
U2075 SS042 AN330 BE035 FL032 U2075 AN331 N0084 N3121 N2106 BE031 LR030 KR082 IT083 BL090  
NE073 AN335 KI008 DS002 NE068 LR029 FE351 DS003 KI006 BE029 KI006 LV353 U2077 NE084 PS038  
FL044 SS036 BE031 FL028 SS031 AL019 FL028 PS021 FE003 SS044 BE033 NE076 SS040 BE041 SS048  
N0085 KR082 KO076 N0086 N2111 FL030 PS022 BE032 NE076 N0093 SS040 IT082 BL088 KO080 KR081  
KR080 IT087 BL091 KO069 N0085 NE078 SS044 N0090 NE079 U2078 N0084 NE091

94=TR

47.43N 31.55E 136 52 121deg 5 7 of 12 bearings  
2830.00 2831.00 2832.00 2833.00 2834.00  
N1145 N0115 ne069 bl065 N3166 n2140 IT109 BL110 ko093 it095 KO082 KR093

95=TU

55.69N 37.41E 18 5 96deg 326 1082 of 1101 bearings  
2835.00 2836.00 2837.00 2838.00 2839.00 2840.00 2841.00 2842.00 2843.00 2844.00  
2845.00 2846.00 2847.00 2848.00 2849.00 2850.00 2851.00 2852.00 2853.00 2854.00  
2855.00 2856.00 2857.00 2858.00 2859.00 2860.00 2861.00 2862.00 2863.00 2864.00  
2865.00 2866.00 2867.00 2868.00 2869.00 2870.00 2871.00 2872.00 2873.00 2874.00  
2875.00 2876.00 2877.00 2878.00 2879.00 2880.00 2881.00 2882.00 2883.00 2884.00  
2885.00 2886.00 2887.00 2888.00 2889.00 2890.00 2891.00 2892.00 2893.00 2894.00  
2895.00 2896.00 2897.00 2898.00 2899.00 2900.00 2901.00 2902.00 2903.00 2904.00  
2905.00 2906.00 2907.00 2908.00 2909.00 2910.00 2911.00 2912.00 2913.00 2914.00  
2915.00 2916.00 2917.00 2918.00 2919.00 2920.00 2921.00 2922.00 2923.00 2924.00  
2925.00 2926.00 2927.00 2928.00 2929.00 2930.00 2931.00 2932.00 2933.00 2934.00  
2935.00 2936.00 2937.00 2938.00 2939.00 2940.00 2941.00 2942.00 2943.00 2944.00  
2945.00 2946.00 2947.00 2948.00 2949.00 2950.00 2951.00 2952.00 2953.00 2954.00  
2955.00 2956.00 2957.00 2958.00 2959.00 2960.00 2961.00 2962.00 2963.00 2964.00  
2965.00 2966.00 2967.00 2968.00 2969.00 2970.00 2971.00 2972.00 2973.00 2974.00  
2975.00 2976.00 2977.00 2978.00 2979.00 2980.00 2981.00 2982.00 2983.00 2984.00  
2985.00 2986.00 2987.00 2988.00 2989.00 2990.00 2991.00 2992.00 2993.00 2994.00  
2995.00 2996.00 2997.00 2998.00 2999.00 3000.00 3001.00 3002.00 3003.00 3004.00  
3005.00 3006.00 3007.00 3008.00 3009.00 3010.00 3011.00 3012.00 3013.00 3014.00  
3015.00 3016.00 3017.00 3018.00 3019.00 3020.00 3021.00 3022.00 3023.00 3024.00  
3025.00 3026.00 3027.00 3028.00 3029.00 3030.00 3031.00 3032.00 3033.00 3034.00  
3035.00 3036.00 3037.00 3038.00 3039.00 3040.00 3041.00 3042.00 3043.00 3044.00  
3045.00 3046.00 3047.00 3048.00 3049.00 3050.00 3051.00 3052.00 3053.00 3054.00  
3055.00 3056.00 3057.00 3058.00 3059.00 3060.00 3061.00 3062.00 3063.00 3064.00  
3065.00 3066.00 3067.00 3068.00 3069.00 3070.00 3071.00 3072.00 3073.00 3074.00  
3075.00 3076.00 3077.00 3078.00 3079.00 3080.00 3081.00 3082.00 3083.00 3084.00

3085.00 3086.00 3087.00 3088.00 3089.00 3090.00 3091.00 3092.00 3093.00 3094.00  
3095.00 3096.00 3097.00 3098.00 3099.00 3100.00 3101.00 3102.00 3103.00 3104.00  
3105.00 3106.00 3107.00 3108.00 3109.00 3110.00 3111.00 3112.00 3113.00 3114.00  
3115.00 3116.00 3117.00 3118.00 3119.00 3120.00 3121.00 3122.00 3123.00 3124.00  
3125.00 3126.00 3127.00 3128.00 3129.00 3130.00 3131.00 3132.00 3133.00 3134.00  
3135.00 3136.00 3137.00 3138.00 3139.00 3140.00 3141.00 3142.00 3143.00 3144.00  
3145.00 3146.00 3147.00 3148.00 3149.00 3150.00 3151.00 3152.00 3153.00 3154.00  
3155.00 3156.00 3157.00 3158.00 3159.00 3160.00  
KO051 BL072 IT070 N0094 KO050 IT072 KR065 U2064 KO049 BL073 IT072 KR067 KO052 BL091 IT070  
NE072 N0085 t098 BL100 kr090 BL068 KR066 IT072 KO056 KR066 IT070 KO053 BL068 KR066 KO053  
IT070 BL068 IT069 BL070 KO055 KR066 IT069 BL070 KO052 KR065 IT070 BL072 KO050 FL028 SS047  
KR064 IT071 BL069 N0090 NE066 U2064 NE066 U2066 NE079 U2065 KR066 IT068 BL060 U2064 NE068  
N0095 n1145 U2067 BL068 N0086 N1117 N2124 NE070 IT069 N0087 NE070 NE070 IT068 U2064 IT068  
BL068 KO053 KR066 U2068 BL070 KO053 KR066 IT070 N0085 N1110 U2065 U2063 N0083 KO050 KR065  
BL070 IT070 N0085 U2064 N0085 KR066 BL068 IT070 KO053 BL070 IT070 KO053 KR066 U2066 KO053  
BL068 U2065 KO050 N0087 KO050 BL070 KR066 n0120 N3150 U2060 KO048 IT070 N0085 U2065 N0082  
IT070 KO051 BL068 IT068 KR067 U2065 KO051 U2065 NE064 KR065 KO060 BL070 IT075 U2066 U2066  
NE068 N0085 BL068 IT070 KO051 KR065 BK060 N0085 U2066 NE066 NE066 SS036 N0085 IT070 BL070 KO053  
KR066 NE078 N0084 N1115 NE078 N0085 U2064 NE070 N0085 N2134 N0090 NE068 N0085 N2134  
N0085 NE080 U2067 NE068 N0085 N0095 ne093 N0083 ne093 IT067 BL100 KR066 N0080 U2066 NE069  
U2064 U2064 IT063 NE068 KO060 IT058 BL068 U2067 NE068 NE069 NE074 U2065 NE059 U2064 NE064  
NE069 N0085 NE058 NE068 IT067 U2064 N0083 N0100 NE068 U2066 N0085 U2065 NE069 NE068 U2065  
N0100 N0085 NE070 IT066 NE068 U2067 IT072 NE068 BE037 SS039 ne098 IT070 N0087 NE068 U2067  
NE068 U2065 N0086 NE066 NE068 U2064 NE069 N0085 N0086 NE067 NE070 N0086 IT066 NE069 SS040  
AL031 GI030 N0080 U2067 U2067 NE068 N0085 U2064 NE068 N0085 NE067 IT072 U2065 NE069 IT082 KO057  
BL072 U2066 NE076 IT072 NE066 U2066 NE068 U2066 N0088 NE068 IT072 n0110 U2065 SS040 U2065  
NE070 BK066 NE064 N0090 NE068 IT072 U2066 BE037 FL035 SS040 IT068 NE069 U2067 U2067 AL041  
SS039 NE070 N0087 NE069 IT072 NE070 IT075 NE068 IT069 NE068 NE069 FL037 SS039 N0087 NE069  
NE070 U2065 N0080 NE083 LR032 N0085 NE070 N2130 N0087 NE078 N1114 NE069 N0085 KR064 BL070  
IT070 KO059 N0085 KO059 IT070 BL070 KR064 SS039 NE070 U2066 KO056 IT074 KR067 BL070 KO061  
KR066 BL068 IT070 U2054 SS040 KO058 IT070 KR066 KO058 BL072 U2067 NE068 N0086 N1110 N1115  
N2125 U2065 N0085 NE069 SS040 BL070 IT072 U2064 N0086 N2125 N1113 NE066 BL070 KO059 N0085  
KO059 KR066 IT070 KO060 KR065 BL069 N0090 U2067 NE068 BL070 IT070 KO050 KR066 IT069 KO058  
U2065 U2065 NE069 KR067 KO056 IT073 NE075 n0130 N1118 U2063 NE067 NE069 N0085 U2067 NE068  
IT075 KO057 KR067 IT073 KO060 BL070 KR065 IT072 KO058 BL070 N0092 N0085 u2096 U2066 NE068  
N0085 NE087 LR031 BE036 SS036 KO056 IT070 BL072 IT070 BL070 KR066 KO053 BL068 IT071 U2062  
NE068 N0087 U2065 U2065 U2065 NE069 U2066 NE068 U2060 NE069 KR066 IT070 KO053 BL068 U2065  
NE068 IT069 BL068 KO050 KR065 U2066 U2066 N0084 U2065 N0087 IT073 BL072 KR067 U2063 IT070  
BL070 KO053 KR065 U2065 BL068 KO051 KR060 IT070 BL072 KO050 KR067 IT070 U2065 BE038 LR028  
PS028 IT072 N0083 U2068 N0083 BE038 LR041 N0082 IT070 BL068 KO050 KR060 N0083 N2128 U2065  
N0080 IT069 BL070 N0082 U2063 U2063 N0085 KR065 U2064 IT076 KR065 U2065 N0100 IT070 BL070  
KR065 U2068 N0083 U2068 LR037 U2066 IT070 BL070 KR065 N0090 U2065 IT070 IT070 BL072 KO050  
KR067 U2067 IT070 BL070 KO052 KR068 U2066 N0080 IT068 BL070 KO055 KR065 N3155 AL036 FL035  
KR066 N0083 U2067 N0086 U2066 KR065 BL070 KO050 U2064 KR065 N0090 U2064 ko067 N0090 U2066  
N0108 KR065 IT073 BL070 KO049 U2063 AL030 FL042 SS043 N0088 U2067 N0085 SS045 U2060 KR066  
IT069 KO049 KR062 IT073 BL065 KO058 N0105 U2064 SS042 N0083 N1116 AL029 FL034 KR065 IT077  
KO048 U2064 N0083 N3134 N0090 KR065 IT071 AL036 BE045 FL042 LR046 U2065 N0085 LR033 SS042  
KR065 IT076 BL063 U2066 N1115 U2065 N2136 KR067 IT073 KO050 N0091 N3160 U2065 KR067 IT068  
BL070 N0087 BE036 FL033 PS036 KR066 IT090 KO051 U2065 N0080 N0085 U2065 U2064 N0085 KR066  
KR066 N0085 KR066 N0085 KR065 KR065 N0082 U2066 BE035 FL030 LR038 PS034 SS042 N0085 KR067  
BE039 FL035 N0090 U2065 N0088 BE037 FL041 GI022 KO066 IT090 KO051 KR066 IT076 BL070 KO055  
N0090 N2135 U2065 N0080 U2069 N0087 BE035 FL032 LR037 PS038 U2058 AL039 SS042 KR067 IT074  
BL070 KO058 U2063 N0087 KR063 IT073 BL070 KO050 FL033 GI041 PS034 SS044 U2071 N0096 KR066  
U2065 N0100 U2065 KR067 IT098 BL070 U2067 N0086 KR067 KO051 N1113 FL033 U2068 KR067 N0085  
U2066 N0085 N2135 KR065 KR066 IT072 BL069 KO057 BL070 IT070 KO052 IT070 KO052 IT070  
BL070 U2068 KR066 SS038 PS020 NE068 NE069 U2065 KO050 NE070 KO053 NE070 U2065 U2065 KO070  
BL065 IT070 KR072 KO056 BL070 IT070 U2065 N0086 NE066 BE036 KI022 LR033 KR064 BL069 U2065  
ne098 N0086 U2067 NE072 BK066 N0087 U2060 NE066 SS039 KO055 IT074 KR066 FL030 GI020 BE036  
BE034 SS040 BK061 N0085 NE068 N0085 U2060 N0080 NE068 BK056 NE068 U2066 BE036 LR032 FL028  
AL027 N0086 N2133 NE066 FL037 SS040 U2067 N0085 N0088 N2133 NE069 BE042 NE068 BE037 K1022

n0114 NE070 AL030 GI028 KI022 SS038 AL025 GI028 SS047 N0086 BE036 SS039 FL033 N0084 NE068  
 N0085 NE073 NE077 NE069 N0090 NE070 U2055 NE075 N0085 IT071 BL070 BE045 NE076 AL030 NE078  
 NE078 N0090 SS037 BE035 N0085 KR070 NE077 NE068 N0101 NE068 N0089 NE072 N0080 FL031 BE037  
 NE068 U2065 N0087 NE068 KR066 NE069 n0126 N0085 NE075 U2065 NE065 U2065 FL031 GI000 SS040  
 BE038 LR032 KI023 PS029 BE035 FL032 N0085 U2064 NE067 U2065 NE068 U2065 N0083 LR032  
 SS037 FL034 U2065 NE067 N0087 BE035 LR033 SS041 FL030 BE037 SS039 U2065 NE070 SS040 KR067  
 NE069 SS038 SS039 GI030 NE079 BK058 U2065 U2065 NE068 N0085 U2065 NE065 SS039 KR066 KR066  
 IT070 BL068 KO057 n0110 NE067 NE067 N0085 FL030 LR034 PS027 BE035 KR066 KO056 N0087 NE067  
 KR065 U2060 U2065 NE066 BK061 KR066 IT072 KO050 NE067 SS039 BE036 FL030 KI020 U2065 NE068  
 N0085 KR067 IT072 BL071 KO056 NE069 N0085 NE069 n0120 NE066 U2063 N0084 KR066 NE086 ne091  
 NE078 NE091 N0087 NE069 N0085 NE066 KR066 KO055 IT075 BL070 NE066 NE067 N0088 NE068 N0085  
 N0090 U2065 NE080 NE089 N0084 U2067 IT072 BL073 NE070 KR070 NE064 N0080 ne094 N0085 BK060  
 KR065 NE068 BK066 NE063 BL072 KR065 NE069 N0083 KR066 NE067 KR070 NE068 SS037 NE061 FL030  
 NE091 ne093 N0085 KR066 U2066 U2066 NE068 U2066 NE066 BK066 U2066 N0080 NE069 N0082 NE069  
 U2067 BK065 NE067 IT070 KR065 BL068 KO052 NE069 N0080 BK058 U2066 KO064 BL068 IT070 KR066  
 N0070 SS037 U2064 NE068 KR060 IT070 KR064 N0085 NE071 BL058 IT065 KO060 N0085 N1115 N2125  
 U2068 SS039 AL041 LR041 N0086 NE069 NE069 KR067 BL072 IT086 KO056 NE069 U2067 IT086 KR071  
 BL070 IT080 NE068 NE070 N0085 IT072 U2067 N0096 NE067 N0086 N1118 IT072 N0087 N0087 SS036  
 FL037 LR040 BE045 U2066 NE071 KI042 FL037 LR041 PS030 BE050 SS039 AL040 U2064 N2125 IT101  
 N0085 N1115 NE068 SS040 FL037 N0085 U2062 NE069 IT072 BL090 U2063 N1120 NE070 KO062 IT074  
 BL070 KR065 KR066 KO053 BL068 IT071 NE069 N0085 LR032 BE037 FL037 SS040 SS040 PS028 AL030  
 BE035 LR032 FL032 KI022 N0084 N3150

96=U7

49.99N 16.07E 15 7 117deg 74 241 of 252 bearings  
 3162.00 3163.00 3164.00 3165.00 3166.00 3167.00 3168.00 3169.00 3170.00 3171.00  
 3172.00 3173.00 3174.00 3175.00 3176.00 3177.00 3178.00 3179.00 3180.00 3181.00  
 3182.00 3183.00 3184.00 3185.00 3186.00 3187.00 3188.00 3189.00 3190.00 3191.00  
 3192.00 3193.00 3194.00 3195.00 3196.00 3197.00 3198.00 3199.00 3200.00 3201.00  
 3202.00 3203.00 3204.00 3205.00 3206.00 3207.00 3208.00 3209.00 3210.00 3211.00  
 3212.00 3213.00 3214.00 3215.00 3216.00 3217.00 3218.00 3219.00 3220.00 3221.00  
 3222.00 3223.00 3224.00 3225.00 3226.00 3227.00 3228.00 3229.00 3230.00 3231.00  
 3232.00 3233.00 3234.00 3235.00  
 BE053 FL043 PS040 AL040 FL043 PS041 U2098 FL035 gi192 SS040 U2096 N0140 N2180 IT133 BL148  
 KR106 KO060 BL148 IT136 KO052 BL145 KO035 KR102 N0140 N2183 N3197 KO058 IT131 KR099 N0133  
 KO062 IT135 KO060 IT123 KR100 b1090 KR100 N0140 N3200 N1175 N0135 KO075 IT142 KR100 N0140  
 IT135 U2097 N0135 KO060 BE051 KO061 it120 KR101 U2097 U2097 U2097 N0135 KO065 BL146 IT131  
 KR102 N1170 BK095 U2097 NE096 U2097 KR102 IT130 BL146 KO060 N0143 N2178 U2097 NE093 n0092  
 BE051 U2096 NE096 BE050 SS042 N0140 IT134 BL146 KO063 KR093 N0140 U2096 N0140 NE093 NE095  
 N0140 FL044 KO062 KR100 BL140 NE095 NE096 PS040 SS044 KO064 KR102 BL148 BE051 FL040 PS039  
 AL043 FL040 LR043 AL042 BE053 FL043 N0140 KR102 KO057 U2097 KR098 U2095 BE045 FL036 SS040  
 FL036 BE051 KR102 IT134 BL140 KO045 b1048 U2094 BE051 PS038 n0090 U2096 PS040 AL046 FL039  
 LR046 BE048 SS040 NE094 BK096 U2097 BE050 SS033 FL036 PS042 SS040 NE093 U2097 U2097 ne068  
 IT132 KO065 kr130 IT120 KO062 KR102 U2098 N0138 IT132 BL144 ko103 KR100 AL034 BE052 FL040  
 PS041 SS042 IT131 BL143 ko105 KR101 IT125 KO060 KR101 KR100 KO089 FL041 LR048 BE049 FL041  
 BE047 FL043 SS045 U2096 AL040 PS035 AL041 GI037 U2096 FL042 PS043 BE040 KR100 BL140 BE051  
 SS043 PS042 U2094 FL041 SS041 KR100 BE051 FL043 SS041 U2094 U2095 KR102 KR102 FL042 LR046  
 PS043 BE052 U2095 AL040 BE051 FL040 LR045 SS043 U2096 N0135 FL040 SS046 GI025 U2097 NE096  
 FL041 BE048 FL041 NE096 SS042 n0100 SS043 FL044 BE051 FL040 PS037 SS044 PS042 SS044 DS033  
 U2099 NE095 KR099 KO062 FL035 SS043 BE050 FL043 PS042 FL043 AL042 LR044

97=UA

52.67N 140.48E 1020 170 52deg 9 30 of 30 bearings  
 3237.00 3238.00 3239.00 3240.00 3241.00 3242.00 3243.00 3244.00 3245.00  
 AN292 LV316 AN290 LV319 FE310 AN288 WP313 FE312 LV316 DS319 AN290 LV317 FE312 FE312 AN298  
 DS322 AN289 DS324 FE311 WP324 LV317 AN289 KI328 LV320 DS323 FE311 AN288 DS322 LV318 FE311

98=UD

43.56N 131.54E 811 242 47deg 15 42 of 42 bearings  
 3247.00 3248.00 3249.00 3250.00 3251.00 3252.00 3253.00 3254.00 3255.00 3256.00  
 3257.00 3258.00 3259.00 3260.00 3261.00  
 LV317 WP317 LV315 AN287 FE309 FE310 WP319 LV312 FE311 KI320 DS320 LV315 WP308 KI324 LV316  
 FE309 WP310 FE309 LV311 AN287 WP315 KI331 AN288 DS321 DS321 FE311 AN289 DS318 AN287 DS321

FE309 LV316 WP308 LV313 AN286 NE051 KR040 NE050 FE308 AN288 AN279 FE309

99=UN

56.46N 57.98E 1636 152 103deg 3 11 of 13 bearings  
3262.00 3263.00 3264.00  
KO068 BL060 KR064 IT060 KR065 KO060 BL076 NE064 N0065 KO054 BL065 IT063 KR058

100=UQ

46.06N 74.80E 411 98 142deg 12 37 of 37 bearings  
3265.00 3266.00 3267.00 3268.00 3269.00 3270.00 3271.00 3272.00 3273.00 3274.00  
3275.00 3276.00  
FE351 WP325 AN319 N1088 N3110 N0076 N1090 WP328 LV315 N0078 N2094 U2067 N0078 N2094 NE072  
GI006 AL011 KR072 IT076 BL070 KO060 N0083 N2115 FE345 WP352 FE351 AL010 GI003 SS026 N0077  
NE068 N1090 N3105 AN324 WP324 NE075 U2065

101=UR

61.54N 70.76E 351 210 129deg 9 27 of 29 bearings  
3277.00 3278.00 3279.00 3280.00 3281.00 3282.00 3283.00 3284.00 3285.00  
U2053 FE002 AN327 WP336 DS351 AN326 WP334 LV351 FE343 AL008 AN333 WP342 KO046 ne082 AN351  
N2079 AN294 WP318 KI327 BE031 SS036 ne071 LV017 AN333 DS013 WP328 AN351 KO052 KR045

102=US

50.99N 29.88E 50 15 107deg 37 124 of 130 bearings  
3286.00 3287.00 3288.00 3289.00 3290.00 3291.00 3292.00 3293.00 3294.00 3295.00  
3296.00 3297.00 3298.00 3299.00 3300.00 3301.00 3302.00 3303.00 3304.00 3305.00  
3306.00 3307.00 3308.00 3309.00 3310.00 3311.00 3312.00 3313.00 3314.00 3315.00  
3316.00 3317.00 3318.00 3319.00 3320.00 3321.00 3322.00  
KO062 it057 KR083 N0108 N3167 KO065 BL096 IT093 KR085 KO066 BL100 IT111 BE049 FL037  
SS043 FL036 PS038 LR033 PS039 AL047 AN001 BE052 FL037 SS039 FL037 AL047 BE048 LR038 PS042  
BE046 LV019 N0097 KO073 U2082 N0113 BL095 KR089 BL091 KR085 U2082 KO060 BL095 IT120 KO066  
BL095 U2084 N0109 BL092 IT096 U2082 BL094 NE088 N0095 N0113 N1140 BL094 KR084 U2077 U2077  
N0109 NE079 SS035 FL037 BE050 KR087 KO077 N0105 N3164 n3148 N0096 AL030 FL036 BE046 AN001  
BE044 SS039 FE019 WP354 N0100 AN359 FL037 GI028 U2083 AN001 FE018 FL038 WP355 KI027 PS042  
FL035 BE042 BL089 KO064 it050 IT103 BL100 N0107 ne068 N0100 ne069 LR041 BE047 FL037 n0078  
AL043 BE047 FL037 LR043 PS041 NE069 N0108 N1144 BK080 U2083 KR086 BL100 KO065 IT111 U2083  
NE083 NE085 U2082 BE045 FL036 AN001 U2083 N0108 AN001 NE084

103=VG

61.19N 32.67E 43 26 92deg 17 41 of 45 bearings  
3324.00 3325.00 3326.00 3327.00 3328.00 3329.00 3330.00 3331.00 3332.00 3333.00  
3334.00 3335.00 3336.00 3337.00 3338.00 3339.00 3340.00  
BE035 SS027 LR021 U2055 N0065 IT049 KR058 BL045 U2055 ne083 BL046 KO038 N0075 AL033 n0104  
N2128 KI025 AN001 U2047 n0085 N0075 N1111 N1105 N0063 FE013 AN356 BL044 IT052 KR049 AL026  
SS042 SS040 BE034 FL030 LR031 N1105 N0063 FE009 AL027 N2135 N1123 N0065 U2052 N2120 ne093

104=VI

45.32N 66.85E 557 157 137deg 6 16 of 16 bearings  
3341.00 3342.00 3343.00 3344.00 3345.00 3346.00  
DS016 LV020 N3118 NE073 U2073 U2073 NE072 N0088 NE072 KR077 U2073 NE077 NE077 U2071 NE072  
N0080

105=VL

49.93N 54.19E 646 162 126deg 3 8 of 10 bearings  
3347.00 3348.00 3349.00  
N0089 N1105 N2117 NE070 FL026 U2074 n0120 NE074 U2075 ne052

106=VR

59.11N 30.90E 16 8 86deg 97 411 of 413 bearings  
3359.00 3360.00 3361.00 3362.00 3363.00 3364.00 3365.00 3366.00 3367.00 3368.00  
3369.00 3370.00 3371.00 3372.00 3373.00 3374.00 3375.00 3376.00 3377.00 3378.00  
3379.00 3380.00 3381.00 3382.00 3383.00 3384.00 3385.00 3386.00 3387.00 3388.00  
3389.00 3390.00 3391.00 3392.00 3393.00 3394.00 3395.00 3396.00 3397.00 3398.00  
3399.00 3400.00 3401.00 3402.00 3403.00 3404.00 3405.00 3406.00 3407.00 3408.00  
3409.00 3410.00 3411.00 3412.00 3413.00 3414.00 3415.00 3416.00 3417.00 3418.00  
3419.00 3420.00 3421.00 3422.00 3423.00 3424.00 3425.00 3426.00 3427.00 3428.00  
3429.00 3430.00 3431.00 3432.00 3433.00 3434.00 3435.00 3436.00 3437.00 3438.00  
3439.00 3440.00 3441.00 3442.00 3443.00 3444.00 3445.00 3446.00 3447.00 3448.00  
3449.00 3450.00 3451.00 3452.00 3453.00 3454.00 3455.00

KO049 BL045 IT074 KO034 KR055 FL039 FE015 SS034 AL031 LR032 AL026 BE043 GI026 BE034 GI010  
 PS023 BE034 LR049 PS022 N0078 NE055 NE055 N0077 NE056 NE055 N0075 KR053 IT056 N0076 N2136  
 N1117 N0077 N3165 N1122 N2139 N1120 N2138 AL038 PS030 NE057 U2055 IT056 BL050 KO037 U2054  
 NE078 N0078 N2138 AN359 BL048 KO036 KR051 N0073 N1118 N2137 NE065 BE040 NE059 U2054 N0076  
 N3166 N1120 N0076 U2054 N2135 NE056 IT058 KO038 BL049 NE055 FE014 AL019 AN003 DS023 PS030  
 KI023 FL028 NE057 KR053 KO044 AN002 GI028 KI024 SS031 FE014 AL028 N0076 DS023 WP347 KI018  
 LV024 SS038 AL029 DS020 LV017 AN359 FL030 DS020 WP356 KI359 LV019 AL029 AN359 BE034 KR051  
 GI034 AN000 U2053 NE056 AN001 DS022 GI035 KI033 AL032 KO040 BL050 IT045 AN354 KO035 BL053  
 AN001 LV011 DS014 KI019 BE042 CA049 DS020 KI028 LV017 AL025 BE043 DS016 LR025 LV021 PS023  
 SS033 LV015 KI019 LR015 AL036 LV014 FL034 KI019 AN003 DS017 FE013 AN003 DS016 KI018 KI019  
 LV018 AL026 IT046 KO041 KR052 BL048 BL050 KO042 KR052 BL048 KO044 BL048 KR052 KO043 BL048  
 KR052 NE060 BL052 IT045 KO040 BL052 N0073 N2140 U2054 U2054 N3163 BL045 IT057 PS033 FE016  
 LV017 SS036 IT055 KR054 IT060 NE059 N0073 LV016 DS017 AN002 SS031 FL032 NE055 IT057 NE072  
 U2054 U2053 NE056 U2053 FL040 SS036 NE056 KO040 BL050 IT057 KR051 NE059 NE056 IT058 U2054  
 NE056 U2054 N0070 U2055 NE056 U2055 SS036 FL035 NE064 N0075 PS030 AL028 BE036 BE034 N2130  
 N0080 N0078 U2061 GI026 FL031 PS040 SS034 N0072 BE042 DS016 FE018 LV011 BE035 KI020 DS020  
 FE014 AN001 AL019 BE032 FL030 SS040 BE030 FL033 GI024 PS036 AL028 BE032 FE018 FL033 GI332  
 WP342 LV016 SS044 U2057 FL033 SS031 AL029 NE072 BE035 AL028 FL031 PS029 AL028 DS016 DS021  
 PS028 FL030 SS033 n2080 N0075 U2051 N1125 N2140 N0121 U2053 U2053 NE056 U2052 KR051 IT057  
 BL055 NE054 U2054 NE056 FL031 BL053 AL029 KI028 KR054 SS037 FL032 AL030 DS314 PS030 SS033  
 AN001 BE037 LR032 BK055 N0080 U2052 AL032 LR032 BE037 FL034 KI026 SS036 PS030 NE055 KO040  
 KR052 IT056 BL048 NE074 FL032 PS030 AL031 BE038 U2060 N0078 N3167 KR051 NE055 N0078 N1120  
 N2142 SS043 N1120 N2142 N0076 N1126 N2143 NE054 N0085 U2053 KR051 NE055 N0078 N2142 NE056  
 N0076 N1121 N0077 N3167 U2051 BE038 PS030 LR032 FL030 SS032 NE058 IT056 KR052 BE039 SS038  
 DS019 NE056 BK050 U2053 N0078 N1121 NE056 BL053 IT055 N0078 N1122 N2142 NE053 FL031 GI025  
 AL031 NE075 SS037 SS038 BE036 U2057 n0170 IT056 SS032 FE015 AN001 NE055 NE054 KR052 IT056  
 SS037 FE013 GI007 NE056 NE055 N1120 N0076 U2054 NE052 AN359 FE015 NE057 SS034 FL031 AL030  
 AL032 BE040 LR038 PS032 N0085 LS055 BE043 U2059

107=W1 53.14N 57.77E 1387 92 107deg 2 5 of 6 bearings  
 3466.00 3467.00  
 KR066 IT072 BL070 KO062 KR068 ko050

108=WA 54.04N 46.90E 48 18 114deg 61 191 of 193 bearings  
 3469.00 3470.00 3471.00 3472.00 3473.00 3474.00 3475.00 3476.00 3477.00 3478.00  
 3479.00 3480.00 3481.00 3482.00 3483.00 3484.00 3485.00 3486.00 3487.00 3488.00  
 3489.00 3490.00 3491.00 3492.00 3493.00 3494.00 3495.00 3496.00 3497.00 3498.00  
 3499.00 3500.00 3501.00 3502.00 3503.00 3504.00 3505.00 3506.00 3507.00 3508.00  
 3509.00 3510.00 3511.00 3512.00 3513.00 3514.00 3515.00 3516.00 3517.00 3518.00  
 3519.00 3520.00 3521.00 3522.00 3523.00 3524.00 3525.00 3526.00 3527.00 3528.00  
 3529.00  
 N0084 N3139 N0083 N3154 N0083 N3137 IT072 KR072 N0082 N3131 N0082 N3143 N0084 n1133 N3136  
 N0083 DS006 AN345 FE002 AL037 AN347 WP342 LR031 KO062 IT076 KR069 KO066 IT081 KO059 BL078  
 KR068 FL029 AN347 FE001 KO060 IT076 KR069 N0082 AN347 SS036 KO059 BL076 IT076 NE071 KO060  
 IT073 KR068 U2070 N0075 NE078 KO062 IT077 KR074 NE070 U2067 NE068 KR069 N0080 N0084 NE066  
 U2065 NE069 n0125 N3154 KR065 IT075 BL078 KO080 KR071 BL077 KO063 KR070 IT075 BL075 KO063  
 N0081 AN351 N0080 U2067 NE061 U2065 N0082 N0080 N3145 N1110 U2065 N3150 N0083 N1110 U2064  
 N0082 N3138 U2060 N0075 U2065 N0082 N1102 KO059 N3130 N2115 U2065 N0080 AL009 SS034 N0080  
 N3154 N0106 N3153 KO065 IT071 KR070 N0080 N1105 FL036 N0081 N2126 NE065 N2124 N0084 N0081  
 N2125 U2062 NE071 N2115 N0080 NE069 AL037 BE045 FL037 NE069 N0085 U2061 N1108 NE074 N2115  
 NE074 U2065 NE072 IT073 BL077 KO071 KR068 KR075 IT076 BL080 KO070 NE072 BE041 SS032 NE066  
 N0087 N0085 NE066 N0084 NE068 N0085 LR033 SS037 BE038 SS038 N0082 NE066 N1109 N2118 N3143  
 U2065 N0082 BE033 AL030 PS028 AL022 BE043 AL029 PS025 FL028 LR033 PS025 BE035 AN355 AL022  
 BE036 BE036 PS026 FL028 N0086 SS034 PS024 GI020 LR032 N2119 N0084 N3129 N2103

109=WD 50.57N 36.93E 83 35 123deg 18 57 of 57 bearings  
 3530.00 3531.00 3532.00 3533.00 3534.00 3535.00 3536.00 3537.00 3538.00 3539.00  
 3540.00 3541.00 3542.00 3543.00 3544.00 3545.00 3546.00 3547.00  
 N0104 N1128 N3159 N2139 NE080 N0100 N2142 KO070 KR085 BL080 N0100 N2140 AN356 NE082 N3160  
 N0095 IT077 KO080 KR080 BL088 SS043 BE035 BL088 KO060 KR085 AN359 LV314 AN358 N3154 N2134



AL031 KI034 AN001 N3154 GI027 AN001 AL035 BE047 LR039 PS036 AN359 FL034 BE044 BL094 KR093  
NE080 U2080 NE080 BE049 SS039 AN003 BE042 DS017 FL030 LR039 PS037 SS042

110=WG

55.55N 38.73E 40 20 115deg 18 57 of 62 bearings  
3548.00 3549.00 3550.00 3551.00 3552.00 3553.00 3554.00 3555.00 3556.00 3557.00  
3558.00 3559.00 3560.00 3561.00 3562.00 3563.00 3564.00 3565.00  
N0084 N2130 ne091 N0085 N1115 N0085 N1119 N2136 KR070 IT070 bl091 IT071 KO058 BL070 BL070  
IT075 KO055 KR066 KO058 BL070 KO047 BL072 KO061 BL073 kr122 n0109 KO054 BL070 IT072 N0084  
U2064 N3154 N1116 NE068 NE068 N2129 KR068 BL070 KO059 U2065 N1120 NE084 N3150 N0090 BL060  
IT072 LR031 SS032 AL031 n1135 N2144 N0088 BE037 AL031 N1120 N2130 N3150 N0095 AL038 LR031  
N1118 N2125

111=WI

55.68N 37.81E 23 11 121deg 101 334 of 338 bearings  
3566.00 3567.00 3568.00 3569.00 3570.00 3571.00 3572.00 3573.00 3574.00 3575.00  
3576.00 3577.00 3578.00 3579.00 3580.00 3581.00 3582.00 3583.00 3584.00 3585.00  
3586.00 3587.00 3588.00 3589.00 3590.00 3591.00 3592.00 3593.00 3594.00 3595.00  
3596.00 3597.00 3598.00 3599.00 3600.00 3601.00 3602.00 3603.00 3604.00 3605.00  
3606.00 3607.00 3608.00 3609.00 3610.00 3611.00 3612.00 3613.00 3614.00 3615.00  
3616.00 3617.00 3618.00 3619.00 3620.00 3621.00 3622.00 3623.00 3624.00 3625.00  
3626.00 3627.00 3628.00 3629.00 3630.00 3631.00 3632.00 3633.00 3634.00 3635.00  
3636.00 3637.00 3638.00 3639.00 3640.00 3641.00 3642.00 3643.00 3644.00 3645.00  
3646.00 3647.00 3648.00 3649.00 3650.00 3651.00 3652.00 3653.00 3654.00 3655.00  
3656.00 3657.00 3658.00 3659.00 3660.00 3661.00 3662.00 3663.00 3664.00 3665.00  
3666.00  
N0086 N3148 N0088 PS026 KI027 LR032 AL030 BE039 N2132 N2137 N0089 AN355 WP353 U2066 N2130  
N1120 AN000 GI039 KI024 AL028 AN355 WP353 WP348 AN358 SS041 AN355 GI037 FL042 BE035 LR031  
AL030 AL029 GI044 NE068 AN358 IT070 KR067 KO058 N0085 N2138 N1122 NE065 AL031 GI101 N2137  
SS043 AN359 AL027 KI023 N0085 N1120 N3150 N0090 U2067 N3150 N3150 N1115 N0085 NE085 NE056  
U2063 NE083 AN351 N0082 NE064 N0090 NE068 NE070 N0070 N2136 NE069 NE068 LV019 DS022 U2067  
N0087 BL075 KR070 KO060 IT087 KR050 KO060 N0090 N3158 IT070 KO060 BL069 KR060 KO060 KR068  
NE079 n0120 U2060 NE068 N0090 N0115 IT074 KO059 BL070 NE068 N2125 U2067 NE068 IT070 BL068  
KO060 N2128 N1120 N1117 N2125 N0086 DS016 FL030 LV015 SS036 N0080 N3150 PS031 AL032 KR064  
FL031 LR035 U2067 N3150 N0087 FE015 DS020 AN358 KI025 AL029 GI025 BE038 N3149 N0088 N2131  
U2064 N0087 N3149 PS030 BE039 KI020 LR034 N2129 IT070 BL067 KO067 KR064 IT068 BL070 KR065  
AL028 BE036 FL037 GI026 SS039 N0085 U2063 N2132 AL027 BE036 FL036 GI025 LR037 PS029 N1115  
AN350 BE040 AL027 FL046 N0087 N3145 N1117 N2133 N3150 U2066 N0085 BE037 N0091 N3154 N0086  
U2067 N0085 BE037 LR035 AL027 U2068 N0087 n3185 AN358 LR038 BE043 FL037 PS041 AN358 BE037  
DS016 FE013 FE010 FL033 AN357 N0089 N2137 SS040 AL028 FL029 U2065 U2065 N3155 NE081 AL030  
BE047 NE068 BE044 SS039 BE036 WP353 SS042 AN358 PS038 AN287 WP353 U2067 N0085 SS043 FL032  
BE041 LR034 SS039 N1120 U2067 AN352 FL037 LR039 SS043 NE069 N0080 U2065 NE067 N0090 U2067  
U2066 NE070 NE076 N0085 N0084 U2063 AN357 BE037 FE009 LV014 WP351 PS022 LR033 SS035 NE066  
N2136 AL026 FL035 PS028 NE067 N0087 NE065 AL029 DS022 N0088 NE067 NE067 AN356 FE010 AL028  
GI323 FE010 WP350 LV012 SS034 AN356 BE032 SS036 BE036 FL040 AL028 AN356 N0089 N1127 N1117  
N2133 N2130 AN359 N3139 N2134 N2134 N1127 DS018 SS036 N2130 U2062 KR081 KO056 NE066 BK057  
BL071 U2064 n2085 N1120 N2132 PS037 BE036 U2067 ne102 N0085 N1120 FE011 AN358 NE069 AN353  
AN358 BE038 GI028 KI020 NE068 N2140 BE028 N0086 N2136 NE068 N0090 NE069 N3158 N3156 N1118  
N2131 BE035 LR032 NE069 NE069 N0085 U2064 N3150

112=WL

48.24N 141.20E 550 175 54deg 17 58 of 58 bearings  
3668.00 3669.00 3670.00 3671.00 3672.00 3673.00 3674.00 3675.00 3676.00 3677.00  
3678.00 3679.00 3680.00 3681.00 3682.00 3683.00 3684.00  
LV313 AN284 FE310 WP312 FE309 LV318 FE305 GI327 WP315 KI325 LV315 FE307 AN289 DS319 WP314  
LV315 AN280 DS318 WP311 DS319 AN280 LV315 KI328 FE306 AN284 DS319 KI327 LV315 WP316 DS322  
WP313 KI322 DS319 FE308 LV315 WP318 AN284 AN288 WP316 DS321 LV313 AN282 AN280 DS323 FE311  
KI324 LV315 WP313 LV311 DS316 FE308 FE308 PS332 AN286 WP318 FE308 AN283 LV314

113=WM

47.92N 58.83E 171 41 126deg 29 105 of 105 bearings  
3685.00 3686.00 3687.00 3688.00 3689.00 3690.00 3691.00 3692.00 3693.00 3694.00  
3695.00 3696.00 3697.00 3698.00 3699.00 3700.00 3701.00 3702.00 3703.00 3704.00  
3705.00 3706.00 3707.00 3708.00 3709.00 3710.00 3711.00 3712.00 3713.00

N2120 N0085 U2074 U2074 N0082 N1110 U2074 N0083 BE041 N0084 WP324 U2079 N0085 U2075 NE070  
 IT081 BL085 KO068 KR077 N0088 N2105 NE074 N0083 N2115 N2108 NE076 U2074 KR110 IT080 KO055  
 NE070 SS033 N0085 N2105 N1106 U2075 NE077 SS034 N1110 NE070 N1101 U2075 NE077 KR080 BL083  
 IT082 KO060 U2075 N1102 SS039 BE029 U2073 N0083 BE032 IT081 BL082 KO077 KR080 U2073 N0085  
 N3125 N2112 BE034 AN330 U2073 N1100 N0083 N0083 N2110 U2072 N0085 SS034 FE349 BE038 N3125  
 NE078 BL080 KR062 IT084 NE063 SS034 U2075 NE063 BL083 KO060 KR080 IT082 N0087 AN331 N0084  
 U2076 N1097 N3113 AN331 SS034 NE077 KR080 IT080 BL085 KO082 N2106 N0087 N0083 N1101 N2120

114=WQ

48.94N 22.11E 48 14 115deg 13 38 of 44 bearings  
 3714.00 3715.00 3716.00 3717.00 3718.00 3719.00 3720.00 3721.00 3722.00 3723.00  
 3724.00 3725.00 3726.00  
 ko096 BL120 KR100 IT119 U2090 N0134 BL120 ne072 KR089 KO076 BL125 IT120 KR100 KO075 KO080  
 BL120 KR100 IT120 NE091 KR100 KO081 BL118 IT119 NE094 N0125 U2095 BK094 U2095 n0090 NE094  
 KO084 NE094 IT118 BL118 U2093 U2096 NE094 BK093 ne084 N3180 U2091 BE049 n0085 n3165

115=WR

55.39N 138.45E 1608 269 53deg 3 11 of 11 bearings  
 3727.00 3728.00 3729.00  
 FE315 AN288 DS324 LV323 LV324 FE317 DS329 AN299 AN297 FE315 WP318

116=WT

13.50N 93.00E 2374 1417 9deg 2 9 of 9 bearings  
 3730.00 3731.00  
 AN294 SS040 AN294 WP328 LV323 AN294 FE327 WP332 KI332

117=XI

48.97N 38.29E 566 48 111deg 3 9 of 13 bearings  
 3733.00 3734.00 3735.00  
 BK083 U2082 NE085 IT092 ko069 KR087 BL096 kr078 KO076 NE083 U2085 ne068 ne068

118=XN

51.41N 30.42E 323 69 131deg 3 8 of 8 bearings  
 3736.00 3737.00 3738.00  
 BE042 GI030 N0107 N2152 AN001 DS016 FE012 LV012

119=XR

63.15N 133.89E 886 157 59deg 16 43 of 43 bearings  
 3739.00 3740.00 3741.00 3742.00 3743.00 3744.00 3745.00 3746.00 3747.00 3748.00  
 3749.00 3750.00 3751.00 3752.00 3753.00 3754.00  
 AN308 DS325 FE311 WP333 DS330 WP315 AN308 WP330 LV329 AN305 AN287 DS342 WP329 AN307 WP314  
 AN306 WP328 LV332 FE327 WP327 AN306 FE326 WP329 LV338 AN307 AN308 FL333 AL334 FE327 AN306  
 WP351 GI336 SS043 PS022 FE328 AN308 DS335 FE328 AN306 AN309 WP328 KI338 AN307

120=XU

56.01N 22.08E 100 42 91deg 3 7 of 7 bearings  
 3755.00 3756.00 3757.00  
 U2065 N0100 NE066 NE066 KO038 NE060 KR055

121=XW

42.70N 45.85E 696 143 146deg 2 5 of 5 bearings  
 3758.00 3759.00  
 N0105 N1125 N2135 NE092 N0108

122=Z1

39.17N 32.43E 2448 303 131deg 2 3 of 4 bearings  
 3760.00 3761.00  
 U2107 ne106 AN358 BE055

123=Z3

50.50N 14.03E 50 27 144deg 8 20 of 20 bearings  
 3762.00 3763.00 3764.00 3765.00 3766.00 3767.00 3768.00 3769.00  
 PS040 BE051 N0150 N1178 U2099 U2099 N0143 N2183 N0143 U2100 U2100 N0144 N2183 U2101 NE096  
 N0140 NE099 U2098 NE098 N0144

124=ZA

54.09N 37.46E 646 113 107deg 3 6 of 7 bearings  
 3770.00 3771.00 3772.00  
 ne079 N0091 U2071 NE071 PS033 LR035 FL032

125=ZD

64.92N 42.11E 224 55 125deg 17 65 of 65 bearings

3773.00 3774.00 3775.00 3776.00 3777.00 3778.00 3779.00 3780.00 3781.00 3782.00  
 3783.00 3784.00 3785.00 3786.00 3787.00 3788.00 3789.00  
 AN356 FE011 GI040 LV006 AN359 AL025 LR044 KI021 SS038 GI020 DS012 DS327 LV004 FE006 AN356  
 AN356 GI015 AL020 BE042 LV005 N2099 KI027 BE042 DS012 NE049 AN355 BE044 AL021 FE008 DS012  
 AN355 LV004 GI017 AL019 BE045 GI015 PS027 AL022 PS018 AN326 DS011 LV005 AL021 PS030 BE028  
 FL031 AN355 FE007 LV004 WP355 DS014 AL020 AN359 BE025 PS020 LR022 PS034 AN356 N2102 SS040  
 FL029 FE005 AL028 AN357 DS016

126-ZM

50.14N 32.74E 63 13 106deg 46 161 of 165 bearings  
 3792.00 3793.00 3794.00 3795.00 3796.00 3797.00 3798.00 3799.00 3800.00 3801.00  
 3802.00 3803.00 3804.00 3805.00 3806.00 3807.00 3808.00 3809.00 3810.00 3811.00  
 3812.00 3813.00 3814.00 3815.00 3816.00 3817.00 3818.00 3819.00 3820.00 3821.00  
 3822.00 3823.00 3824.00 3825.00 3826.00 3827.00 3828.00 3829.00 3830.00 3831.00  
 3832.00 3833.00 3834.00 3835.00 3836.00 3837.00  
 N0113 N3142 FL037 GI033 AN002 BE048 SS042 BE046 FL037 LR042 BE045 BE041 FL033 LR037 FL034  
 BE042 BE041 LR036 SS039 FL033 N0105 N1125 BE049 FL033 FE018 U2077 KR087 IT098 BL095 KO075  
 N0109 BE045 PS040 BL095 KO074 KR085 U2083 N0110 U2083 IT092 KO088 KR086 NE081 BK107 U2084  
 N0105 KO067 BL095 IT091 KR085 PS035 BE041 FL035 KR086 IT095 BL098 KO078 BE048 AL042 BE042  
 FL034 U2075 N1120 NE082 AN001 BE054 FL036 LR041 PS038 BE040 FL030 BE041 DS025 FL035 KO070  
 BL085 KR086 NE069 KO072 AN358 GI020 WP356 FL039 BE047 PS042 PS037 SS030 DS025 KI031 AL038  
 PS040 FL037 BE044 AL039 FL039 BE045 DS026 AN358 AL036 NE091 NE093 N0105 KR085 NE082 U2084  
 NE079 U2083 NE083 BE041 GI020 PS036 SS039 PS033 BE041 FL037 AN008 BE041 DS024 FL041 GI041  
 LR042 PS038 SS039 KR087 FE015 GI029 NE084 N0190 U2079 NE082 KR085 IT097 KO071 U2085 FL032  
 AL039 KR086 IT097 KO072 KR085 NE079 LR040 BE044 KR084 SS039 N0107 N1144 BL098 KR083 KO070  
 BE040 FL030 LR044 SS039 KO069 NE068 KR083 KO070 BK080 N0083 KR085 KO068 GI008 FL035 AN004

127-ZT

51.53N 144.35E 385 127 57deg 28 98 of 98 bearings  
 3838.00 3839.00 3840.00 3841.00 3842.00 3843.00 3844.00 3845.00 3846.00 3847.00  
 3848.00 3849.00 3850.00 3851.00 3852.00 3853.00 3854.00 3855.00 3856.00 3857.00  
 3858.00 3859.00 3860.00 3861.00 3862.00 3863.00 3864.00 3865.00  
 WP312 AN284 WP319 AN287 DS324 FE312 DS322 FE309 WP320 LV317 LV319 FE311 AL332 AN290 DS318  
 WP320 FE311 LV317 DS319 FE305 WP325 LV315 GI321 AN287 DS317 FE308 FE310 WP327 DS324 AN284  
 FE311 FE307 LV317 AN282 WP318 WP316 LV311 AN285 DS315 FE313 AN287 FE312 FL340 WP315 LV318  
 WP313 AN287 WP324 LV320 DS321 FE308 FE311 WP316 LV315 DS323 LV319 DS318 FE312 WP316 AN290  
 WP322 AN282 DS318 FE308 WP317 AN283 DS318 FE309 WP317 KI315 DS318 WP315 AN287 DS321 LV314  
 AN283 LV315 LV317 AN283 AN284 DS319 LV319 WP315 FE308 FE311 WP314 AN282 DS320 FE308 WP323  
 LV315 AN283 FE310 WP315 AN290 DS320 FE308 KI322

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4F

Fix= 41 12 21N 67 30 56E [ 352 95 137deg] 105x1000sqm 273nmi 90%

Bearing Utilization 22 used

AL1 AN1 BE1 BK1 BL1 DS1 EK1 FE1 FL1 IT1 KO1 KR1 LR1 NO1 N11 N21 N31 NE1  
PS1 SS1 U21 WP1

ALA 22.0 ANA333.0 BEA 32.0 BKA 80.0 BLA 85.0 DSA 4.0 EKA 96.0  
FEA352.0 FLA 27.0 ITA 84.0 KOA 78.0 KRA 82.0 LRA 28.0 NOA 86.0  
N1A102.0 N2A100.0 N3A121.0 NEA 76.0 PSA 22.0 SSA 36.0 U2A 77.0  
WPA324.0

\*\*\*\*\*

66 -- CHINESE JAMME

Fix= 27 57 31N 116 54 17E [ 1045 296 41deg] 971x1000sqm 810nmi 90%

Bearing Utilization 12 used

AN1 DS1 FE1 GI1 LV1 WP1 AN1 DS1 FE1 GI1 LV1 WP1

ANA287.0 DSA318.0 FEA308.0 GIA330.0 LVA312.0 WPA295.0 ANA287.0  
DSA318.0 FEA308.0 GIA330.0 LVA312.0 WPA295.0

\*\*\*\*\*

7K

Fix= 43 13 34N 66 50 8E [ 322 94 135deg] 95x1000sqm 250nmi 90%

Bearing Utilization 20 used

AN1 BE1 BK1 BL1 DS1 FE1 FL1 IT1 KO1 KR1 MUI NO1 N11 N21 N31 NE1 PS1 SS1  
U21 WP1

ANA333.0 BEA 30.0 BKA 78.0 BLA 83.0 DSA 5.0 FEA354.0 FLA 26.0  
ITA 84.0 KOA 72.0 KRA 80.0 MUB 72.0 NOA 85.0 N1A100.0 N2A107.0  
N3A120.0 NEA 75.0 PSA 25.0 SSA 37.0 U2A 75.0 WPA324.0

\*\*\*\*\*

KB

Fix= 48 39 7N 134 47 53E [ 620 179 51deg] 349x1000sqm 481nmi 90%

Bearing Utilization 14 used

AN1 DS1 FE1 GI1 KI1 LV1 WP1 AN1 DS1 FE1 GI1 KI1 LV1 WP1

ANA289.0 DSA322.0 FEA312.0 GIA328.0 KIA328.0 LVA317.0 WPA315.0  
ANA289.0 DSA322.0 FEA312.0 GIA328.0 KIA328.0 LVA317.0 WPA315.0

\*\*\*\*\*

K7

Fix= 43 0 52N 23 56 24E [ 204 44 138deg] 28x1000sqm 157nmi 90%

Bearing Utilization 9 used

BE1 BL1 FEO IT1 KO1 KR1 NO1 N11 N21 SS1 U20

BEA 54.0 BLB140.0 feA 43.0 ITB135.0 KOB105.0 KRA120.0 NOA135.0  
N1B158.0 N2B165.0 SSA 49.0 u2A118.0

\*\*\*\*\*

GM

Fix= 49 11 3N 134 32 14E [ 642 190 52deg] 383x1000sqm 499nmi 90%

144

Bearing Utilization 10 used  
AN1 DS1 FE1 LV1 WP1 AN1 DS1 FE1 LV1 WP1

ANA290.0 DSA324.0 FEA310.0 LVA320.0 WPA315.0 ANA290.0 DSA324.0  
FEA310.0 LVA320.0 WPA315.0

\*\*\*\*\*

IG

Fix= 50 18 22N 136 44 47E [ 606 187 53deg] 356x1000sqm 472nmi 90%

Bearing Utilization 8 used  
WP1 LV1 FE1 DS0 AN1 WP1 LV1 FE1 DS0 AN1

WPA317.0 LVA317.0 FEA311.0 dsA 38.0 ANA290.0 WPA317.0 LVA317.0  
FEA311.0 dsA 38.0 ANA290.0

\*\*\*\*\*

L4

Fix= 43 14 24N 25 58 54E [ 180 31 128deg] 18x1000sqm 138nmi 90%

Bearing Utilization 14 used  
BL1 FL1 IT1 KO1 KR1 NO1 U21 BL1 FL1 IT1 KO1 KR1 NO1 U21

BLB130.0 FLB 44.0 ITB130.0 KOB104.0 KRA115.0 NOB131.0 U2A107.0  
BLB130.0 FLB 44.0 ITB130.0 KOA104.0 KRB115.0 NOB131.0 U2A107.0

\*\*\*\*\*

L8

Fix= 47 52 2N 17 59 23E [ 103 31 131deg] 10x1000sqm 80nmi 90%

Bearing Utilization 12 used  
BE1 FL1 KR1 NO1 U21 PS1 BE1 FL1 KR1 NO1 U21 PS1

BEB 52.0 FLB 42.5 KRB110.0 NOA141.0 U2A103.0 PSB 42.0 BEB 52.0  
FLB 42.5 KRB110.0 NOA141.0 U2A103.0 PSB 42.0

\*\*\*\*\*

MX

Fix= 54 58 56N 22 0 23E [ 144 39 89deg] 18x1000sqm 111nmi 90%

Bearing Utilization 12 used  
AL1 BE1 FL1 NO1 NE1 SS1 U20 AL1 BE1 FL1 NO1 NE1 SS1 U20

ALB 39.0 BEB 45.0 FLB 37.0 NOB106.0 NEA 68.0 SSB 41.0 u2B 92.0  
ALB 39.0 BEB 45.0 FLB 37.0 NOB106.0 NEA 68.0 SSB 41.0 u2B 92.0

\*\*\*\*\*

TK

Fix= 41 31 17N 65 16 21E [ 349 112 138deg] 123x1000sqm 272nmi 90%

Bearing Utilization 36 used  
AL1 AN1 BE1 BK1 BL1 FL1 IT1 KO1 AL1 AN1 BE1 BK1 BL1 FL1 IT1 KO1 LR1 MU1  
NO1 NI1 WP1 N21 NE1 PS1 SS1 U21 LR1 MU1 NO1 NI1 WP1 N21 NE1 PS1 SS1 U21

ALA 37.0 ANA332.0 BEA 34.0 BKB 79.5 BLB 89.0 FLA 33.0 ITB 86.5  
KOB 77.0 ALA 37.0 ANA332.0 BEA 34.0 BKB 79.5 BLB 89.0 FLA 33.0  
ITB 86.5 KOB 77.0 LRA 27.0 MUB 75.0 NOB 88.0 NIB101.0 WPA323.0  
N2A110.0 NEB 78.0 PSB 27.0 SSA 36.0 U2A 77.5 LRA 27.0 MUB 75.0  
NOB 88.0 NIB101.0 WPA323.0 N2A110.0 NEB 78.0 PSB 27.0 SSA 36.0  
U2A 77.5

\*\*\*\*\*

MU

Fix= 44 43 34N 63 54 39E [ 332 77 126deg] 80x1000sqm 256nmi 90%

Bearing Utilization 36 used

AN1 BE1 BK1 BL1 DS1 FE1 FL1 IT1 KO1 KR1 LR1 AN1 BE1 BK1 BL1 DS1 FE1 FL1  
IT1 KO1 KR1 LR1 MU1 N01 N21 NE1 SS1 U21 WP1 MU1 N01 N21 NE1 SS1 U21 WP1

ANA334.0 BEA 36.0 BKA 75.0 BLA 84.0 DSB 1.0 FEA358.0 FLB 33.0  
ITA 82.0 KOB 71.0 KRA 79.2 LRB 28.0 ANA334.0 BEA 36.0 BKA 75.0  
BLA 84.0 DSB 1.0 FEA358.0 FLB 33.0 ITA 82.0 KOB 71.0 KRA 79.2  
LRB 28.0 MUB 70.0 NOA 85.0 N2B108.0 NEB 75.0 SSA 37.0 U2A 75.0  
WPA325.0 MUB 70.0 NOA 85.0 N2B108.0 NEB 75.0 SSA 37.0 U2A 75.0  
WPA325.0

\*\*\*\*\*

DR

Fix= 54 59 31N 23 22 3E [ 55 17 88deg] 3x1000sqm 43nmi 90%

Bearing Utilization 30 used

AL1 BE1 BL1 FL1 IT1 KO1 KR1 LR1 N01 N21 AL1 BE1 BL1 FL1 IT1 KO1 KR1 LR1  
N01 N21 NE1 PS1 SS1 U21 U21 NE1 PS1 SS1 U21 U21

ALB 39.0 BEA 43.0 BLB 64.0 FLA 36.0 ITA 74.5 KOB 43.0 KRA 65.0  
LRA 42.0 NOA105.0 N2B160.0 ALB 39.0 BEA 43.0 BLB 64.0 FLA 36.0  
ITA 74.5 KOB 43.0 KRA 65.0 LRA 42.0 NOA105.0 N2B160.0 NEA 68.0  
PSA 38.0 SSA 39.0 U2A 69.0 U2A 69.0 NEA 68.0 PSA 38.0 SSA 39.0  
U2A 69.0 U2A 69.0

\*\*\*\*\*

FU

Fix= 44 18 18N 73 23 47E [ 480 110 131deg] 166x1000sqm 370nmi 90%

Bearing Utilization 32 used

AL1 BK1 BL1 FL1 DS1 FE1 PS1 SS1 U21 U21 AL1 BK1 BL1 FL1 DS1 FE1 PS1 SS1  
U21 U21 WP1 KR1 N01 N11 N21 NE1 WP1 KR1 N01 N11 N21 NE1

ALA 10.0 BKB 70.0 BLB 80.0 FLB 37.0 DSB 3.0 FEB357.0 PSB 25.0  
SSA 38.0 U2A 70.0 U2A 69.0 ALA 10.0 BKB 70.0 BLB 80.0 FLB 37.0  
DSB 3.0 FEB357.0 PSB 25.0 SSA 38.0 U2A 70.0 U2A 69.0 WPA323.0  
KRA 72.0 NOA 78.0 N1B 90.0 N2B101.0 NEA 70.0 WPA323.0 KRA 72.0  
NOA 78.0 N1B 90.0 N2B101.0 NEA 70.0

\*\*\*\*\*

APPENDIX C: SELECTED SUMMARIES OF THE THIRD PARTY MONITORING  
OBSERVATIONS FOR EACH STATION

FT. SMITH, CANADA

NUMBER OF SCHEDULED OBSERVATIONS 274  
 NUMBER OF OBSERVATIONS TOTAL 183  
 NUMBER OF OBSERVATIONS UNHARMED 124  
 NUMBER OF OBSERVATIONS INTERFERED 59  
 NUMBER OF INTENTIONAL INTERFERENCE 58  
 NUMBER OF UNINTENTIONAL INTERFERENCE 1  
 NUMBER OF BOTH 0  
 NUMBER CAN T TELL 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 31, 6, 1, 0)	E ( 29, 19, 8, 0, 0)
EQA( 23, 13, 5, 0, 0)	CAN( 21, 15, 1, 0, 0)
SLV( 19, 12, 9, 0, 0)	GHA( 12, 9, 4, 0, 0)
ATG( 11, 8, 0, 0, 0)	ATN( 11, 9, 1, 0, 0)
THA( 11, 7, 4, 0, 0)	RRW( 10, 7, 2, 0, 0)
DDR( 7, 4, 0, 0, 0)	POR( 7, 4, 2, 0, 0)
UAE( 7, 6, 1, 0, 0)	AUT( 6, 6, 2, 0, 0)
EGY( 6, 4, 0, 0, 0)	S ( 6, 5, 4, 0, 0)
URG( 5, 4, 0, 0, 0)	KOR( 4, 2, 1, 0, 0)
AUS( 3, 2, 0, 0, 0)	MLT( 3, 3, 0, 0, 0)
PRG( 3, 2, 2, 0, 0)	B ( 2, 1, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 1, 1, 0, 0)
GRC( 2, 0, 0, 0, 0)	HTI( 2, 2, 2, 0, 0)
SUI( 2, 1, 0, 0, 0)	YUG( 2, 2, 2, 0, 0)
CHN( 1, 0, 0, 0, 0)	FNL( 1, 1, 1, 0, 0)
I ( 1, 0, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 34

WI( 7) \*\* ( 5) VR( 5) K7( 4) FA( 3) IG( 3) KD( 3) LM( 3) DU( 2) NI( 2)  
 UR( 2) 1G( 1) 4F( 1) 7K( 1) BD( 1) BG( 1) BR( 1) CB( 1) CG( 1) D3( 1)  
 DB( 1) FG( 1) FU( 1) GI( 1) GM( 1) KB( 1) KV( 1) LK( 1) SB( 1) TK( 1)  
 UK( 1) VG( 1) WD( 1) ZM( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 1  
 WYFR( 1)

ST. REMI, CANADA

NUMBER OF SCHEDULED OBSERVATIONS 274  
 NUMBER OF OBSERVATIONS TOTAL 183  
 NUMBER OF OBSERVATIONS UNHARMED 113  
 NUMBER OF OBSERVATIONS INTERFERED 70  
 NUMBER OF INTENTIONAL INTERFERENCE 70  
 NUMBER OF UNINTENTIONAL INTERFERENCE 0  
 NUMBER OF BOTH 0  
 NUMBER CAN T TELL 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 30, 7, 0, 0)	E ( 29, 20, 11, 0, 0)
EQA( 23, 11, 5, 0, 0)	CAN( 21, 15, 2, 0, 0)
SLV( 19, 11, 6, 0, 0)	GHA( 12, 9, 7, 0, 0)
ATG( 11, 8, 3, 0, 0)	ATN( 11, 8, 2, 0, 0)
THA( 11, 10, 3, 0, 0)	RRW( 10, 7, 2, 0, 0)
DDR( 7, 5, 2, 0, 0)	POR( 7, 5, 2, 0, 0)



UAE( 7, 6, 1, 0, 0)	AUT( 6, 6, 5, 0, 0)
EGY( 6, 4, 0, 0, 0)	S ( 6, 5, 3, 0, 0)
URG( 5, 3, 1, 0, 0)	KOR( 4, 2, 2, 0, 0)
AUS( 3, 2, 0, 0, 0)	MLT( 3, 3, 0, 0, 0)
PRG( 3, 2, 1, 0, 0)	B ( 2, 1, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 1, 1, 0, 0)
GRC( 2, 0, 0, 0, 0)	HTI( 2, 2, 1, 0, 0)
SUI( 2, 1, 0, 0, 0)	YUG( 2, 2, 2, 0, 0)
CHN( 1, 0, 0, 0, 0)	FNL( 1, 1, 1, 0, 0)
I ( 1, 0, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 23

\*\* ( 25 ) KB ( 9 ) IG ( 8 ) VR ( 6 ) GR ( 5 ) FA ( 3 ) AG ( 2 ) GM ( 2 ) ZT ( 2 ) 4F ( 1 )  
 4N ( 1 ) 7K ( 1 ) BA ( 1 ) CG ( 1 ) DR ( 1 ) DU ( 1 ) KD ( 1 ) S5 ( 1 ) VM ( 1 ) XR ( 1 )  
 ZB ( 1 ) ZD ( 1 ) ZM ( 1 )

BOCKHAKEN, GERMANY

NUMBER OF SCHEDULED OBSERVATIONS 708

NUMBER OF OBSERVATIONS TOTAL 695

NUMBER OF OBSERVATIONS UNHARMED 154

NUMBER OF OBSERVATIONS INTERFERED 541

NUMBER OF INTENTIONAL INTERFERENCE 498

NUMBER OF UNINTENTIONAL INTERFERENCE 42

BOTH INTENTIONAL AND UNINTENTIONAL 1

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 55, 46, 4, 0)	DDR( 49, 49, 35, 1, 0)
E ( 45, 45, 26, 4, 0)	EGY( 40, 39, 36, 1, 0)
I ( 39, 39, 33, 0, 0)	CVA( 35, 34, 23, 2, 0)
TUR( 30, 30, 23, 0, 0)	ALG( 29, 29, 25, 0, 0)
UAE( 25, 25, 15, 2, 0)	MRC( 23, 23, 19, 1, 1)
CHN( 22, 22, 14, 3, 0)	KOR( 22, 20, 13, 2, 0)
MEX( 19, 18, 16, 0, 0)	TUN( 19, 18, 16, 2, 0)
LUX( 18, 18, 9, 1, 0)	FNL( 17, 17, 8, 3, 0)
PAK( 17, 17, 17, 0, 0)	BGD( 15, 13, 7, 3, 0)
NOR( 15, 15, 8, 2, 0)	ARS( 12, 12, 9, 0, 0)
BEL( 12, 11, 9, 1, 0)	AUT( 11, 11, 5, 0, 0)
B ( 11, 11, 9, 0, 0)	MLT( 11, 11, 7, 1, 0)
QAT( 11, 10, 8, 0, 0)	EQA( 10, 10, 7, 0, 0)
MCO( 10, 9, 8, 0, 0)	SUI( 10, 10, 4, 1, 0)
POR( 9, 8, 5, 1, 0)	THA( 9, 9, 6, 0, 0)
CAN( 7, 7, 3, 1, 0)	GRC( 7, 7, 5, 0, 0)
AFS( 6, 6, 3, 1, 0)	BFA( 6, 6, 5, 0, 0)
HOL( 6, 6, 4, 1, 0)	PRG( 5, 5, 3, 0, 0)
S ( 5, 5, 0, 0, 0)	IND( 4, 3, 2, 0, 0)
CHL( 3, 3, 1, 2, 0)	KWT( 3, 3, 3, 0, 0)
AUS( 2, 2, 1, 1, 0)	AFG( 1, 1, 1, 0, 0)
CLN( 1, 1, 0, 0, 0)	GHA( 1, 1, 1, 0, 0)
J ( 1, 1, 0, 1, 0)	

NUMBER OF MARKERS IDENTIFIED - 116

TU( 72 ) LM( 37 ) TK( 35 ) RB( 32 ) BG( 31 ) PB( 31 ) MU( 24 ) G7( 23 ) ZM( 23 ) FU( 21 )  
 WI( 21 ) AN( 20 ) US( 17 ) 4F( 16 ) LK( 15 ) \*\* ( 14 ) KD( 14 ) U7( 14 ) 1G( 12 ) 7K( 12 )  
 SM( 12 ) VR( 12 ) SU( 11 ) B1( 10 ) WA( 10 ) DU( 9 ) LG( 9 ) DA( 8 ) NS( 8 ) SF( 8 )  
 4N( 7 ) BD( 7 ) DR( 7 ) FL( 7 ) PL( 7 ) TR( 7 ) UN( 7 ) FG( 6 ) MA( 6 ) MF( 6 )  
 MP( 6 ) WD( 6 ) 77( 5 ) K7( 5 ) UB( 5 ) WM( 5 ) 1D( 4 ) A5( 4 ) IR( 4 ) MX( 4 )

RQ( 4) VG( 4) BL( 3) BN( 3) CB( 3) GI( 3) HM( 3) KM( 3) MG( 3) NI( 3)  
 PC( 3) RT( 3) S5( 3) UQ( 3) XU( 3) Z3( 3) ZA( 3) AD( 2) AG( 2) D3( 2)  
 DL( 2) DP( 2) FI( 2) FR( 2) KV( 2) L4( 2) L8( 2) RS( 2) SB( 2) ST( 2)  
 VN( 2) WG( 2) XN( 2) XR( 2) 1B( 1) AM( 1) AR( 1) BR( 1) BU( 1) FA( 1)  
 G3( 1) HP( 1) HT( 1) IB( 1) LD( 1) MB( 1) NB( 1) NU( 1) PA( 1) PK( 1)  
 PU( 1) R1( 1) R6( 1) RD( 1) RK( 1) S7( 1) TS( 1) UD( 1) UR( 1) VB( 1)  
 VI( 1) VL( 1) VU( 1) W4( 1) WQ( 1) XI( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 8

\*B ( 15) URS( 5)  
 VOA( 1) RFE( 1)  
 POL( 1) TUR( 1)  
 RL ( 1) AUT( 1)

DW RELAY - KIGALI, RWANDA

NUMBER OF SCHEDULED OBSERVATIONS 605  
 NUMBER OF OBSERVATIONS TOTAL 509  
 NUMBER OF OBSERVATIONS UNHARMED 208  
 NUMBER OF OBSERVATIONS INTERFERED 301  
 NUMBER OF INTENTIONAL INTERFERENCE 240  
 NUMBER OF UNINTENTIONAL INTERFERENCE 52  
 NUMBER OF BOTH 9

BROADCAST ADMINISTRATIONS MONITORED:

ARS( 62, 49, 19, 5, 2)	DDR( 58, 50, 22, 3, 2)
EGY( 56, 44, 22, 8, 0)	I ( 40, 27, 12, 4, 0)
PAK( 36, 31, 16, 1, 0)	UAE( 33, 30, 15, 2, 1)
CVA( 24, 21, 15, 0, 0)	MEX( 23, 21, 7, 0, 1)
E ( 22, 21, 9, 2, 0)	BEL( 21, 21, 7, 2, 0)
TUN( 21, 13, 7, 0, 0)	YUG( 21, 19, 9, 2, 0)
NOR( 17, 14, 7, 1, 0)	SUI( 17, 14, 6, 5, 0)
ALG( 15, 11, 4, 0, 0)	CHN( 13, 12, 7, 2, 0)
AUT( 11, 8, 3, 2, 0)	IND( 11, 11, 7, 1, 0)
TUR( 11, 9, 6, 1, 0)	QAT( 10, 9, 2, 2, 0)
SDN( 10, 10, 5, 1, 0)	HOL( 8, 8, 3, 1, 0)
MLT( 8, 7, 6, 1, 0)	MRC( 7, 6, 3, 1, 0)
BFA( 6, 6, 2, 0, 0)	AFG( 5, 3, 1, 2, 0)
KOR( 4, 4, 0, 1, 2)	LBR( 4, 4, 1, 1, 0)
S ( 4, 4, 3, 0, 0)	SOM( 4, 2, 0, 0, 0)
B ( 3, 3, 2, 0, 0)	CHL( 3, 3, 1, 0, 1)
FNL( 3, 2, 1, 0, 0)	POR( 3, 3, 2, 1, 0)
URG( 3, 3, 3, 0, 0)	AFS( 2, 2, 1, 0, 0)
CAN( 1, 0, 0, 0, 0)	GHA( 1, 1, 1, 0, 0)
J ( 1, 1, 1, 0, 0)	KWT( 1, 1, 1, 0, 0)
MCO( 1, 1, 1, 0, 0)	

NUMBER OF MARKERS IDENTIFIED - 1

\*\* (232)

NUMBER OF OTHER BROADCAST INTERFERERS IDENTIFIED - 18

\*B ( 12) VOA ( 5)  
 DW ( 5) AUT ( 3)  
 RFI ( 3) URS ( 2)  
 TCH ( 2) SWZ ( 2)  
 RTTY ( 1) AF ( 1)  
 POR ( 1) AFS ( 1)

BUL ( 1) USA ( 1)  
 RTTY BB( 1) RTTY DW( 1)  
 URS UKR( 1) BBC ( 1)

DW RELAY - MALTA

NUMBER OF SCHEDULED OBSERVATIONS 708  
 NUMBER OF OBSERVATIONS TOTAL 550  
 NUMBER OF OBSERVATIONS UNHARMED 68  
 NUMBER OF OBSERVATIONS INTERFERED 482  
 NUMBER OF INTENTIONAL INTERFERENCE 360  
 NUMBER OF UNINTENTIONAL INTERFERENCE 50  
 BOTH INTENTIONAL AND UNINTENTIONAL 72

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 45, 41, 1, 1)	DDR( 49, 40, 29, 5, 3)
E ( 45, 33, 19, 2, 9)	EGY( 40, 23, 20, 2, 1)
I ( 39, 27, 17, 0, 4)	CVA( 35, 27, 18, 1, 3)
TUR( 30, 29, 21, 2, 5)	ALG( 29, 16, 11, 2, 1)
UAE( 25, 19, 9, 6, 3)	MRC( 23, 19, 11, 2, 3)
CHN( 22, 17, 8, 2, 3)	KOR( 22, 20, 6, 5, 9)
MEX( 19, 19, 16, 0, 3)	TUN( 19, 16, 12, 0, 3)
LUX( 18, 18, 13, 2, 1)	FNL( 17, 16, 10, 2, 2)
PAK( 17, 10, 7, 0, 1)	BGD( 15, 10, 4, 4, 0)
NOR( 15, 15, 12, 0, 1)	ARS( 12, 8, 8, 0, 0)
BEL( 12, 12, 7, 1, 1)	AUT( 11, 9, 1, 2, 2)
B ( 11, 9, 8, 0, 0)	MLT( 11, 10, 5, 1, 4)
QAT( 11, 11, 9, 0, 1)	EQA( 10, 2, 2, 0, 0)
MCO( 10, 7, 5, 1, 0)	SUI( 10, 9, 3, 2, 0)
POR( 9, 8, 3, 0, 1)	THA( 9, 1, 1, 0, 0)
CAN( 7, 6, 4, 1, 0)	GRC( 7, 6, 3, 0, 1)
AFS( 6, 5, 1, 2, 2)	BFA( 6, 6, 5, 0, 1)
HOL( 6, 3, 0, 0, 0)	PRG( 5, 4, 3, 1, 0)
S ( 5, 5, 2, 0, 1)	IND( 4, 1, 1, 0, 0)
CHL( 3, 3, 2, 0, 1)	KWT( 3, 1, 0, 0, 0)
AUS( 2, 2, 1, 0, 1)	AFG( 1, 0, 0, 0, 0)
CLN( 1, 1, 1, 0, 0)	GHA( 1, 1, 1, 0, 0)
J ( 1, 1, 0, 1, 0)	

NUMBER OF MARKERS IDENTIFIED - 51

\*\* (283) 1G( 13) Z3( 11) 4N( 7) 1D( 6) TU( 6) LM( 5) PB( 5) G7( 4) LG( 4)  
 ZM( 4) D3( 3) DR( 3) FU( 3) \* ( 2) FM( 2) GA( 2) MF( 2) P6( 2) PG( 2)  
 SF( 2) UZ( 2) 1B( 1) 4T( 1) AA( 1) AK( 1) AR( 1) BG( 1) CK( 1) DA( 1)  
 DS( 1) DT( 1) FL( 1) G8( 1) HM( 1) KD( 1) L4( 1) L8( 1) LD( 1) LK( 1)  
 M3( 1) NL( 1) P3( 1) PK( 1) S5( 1) U7( 1) UR( 1) US( 1) WD( 1) WG( 1)  
 ZG( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 20

\*B( 41) URS( 12)  
 88( 11) VOA( 4)  
 RFE( 4) DW( 4)  
 B( 2) \*B( 2)  
 D( 1) UAE( 1)  
 RTTY( 1) HNG( 1)  
 BRUSSELS( 1) BBC( 1)  
 HOL( 1) EGY( 1)  
 TUR( 1) AUT( 1)

DDR( 1) URS( 1)

DW RELAY - SESIMBRA, PROTUGAL

NUMBER OF SCHEDULED OBSERVATIONS 708  
 NUMBER OF OBSERVATIONS TOTAL 670  
 NUMBER OF OBSERVATIONS UNHARMED 62  
 NUMBER OF OBSERVATIONS INTERFERED 608  
 NUMBER OF INTENTIONAL INTERFERENCE 276  
 NUMBER OF UNINTENTIONAL INTERFERENCE 102  
 BOTH INTENTIONAL AND UNINTENTIONAL 230

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 51, 32, 3, 13)	DDR( 49, 49, 24, 10, 13)
E ( 45, 44, 15, 10, 15)	EGY( 40, 35, 17, 2, 12)
I ( 39, 35, 15, 5, 14)	CVA( 35, 35, 12, 6, 10)
TUR( 30, 29, 17, 1, 10)	ALG( 29, 29, 14, 5, 8)
UAE( 25, 22, 4, 4, 14)	MRC( 23, 23, 8, 3, 11)
CHN( 22, 22, 7, 5, 9)	KOR( 22, 21, 9, 3, 8)
MEX( 19, 19, 7, 2, 5)	TUN( 19, 15, 9, 0, 5)
LUX( 18, 18, 8, 2, 6)	FNL( 17, 17, 4, 6, 6)
PAK( 17, 17, 9, 0, 7)	BGD( 15, 11, 1, 4, 5)
NOR( 15, 15, 6, 2, 5)	ARS( 12, 12, 2, 1, 8)
BEL( 12, 10, 1, 0, 0)	AUT( 11, 10, 1, 2, 3)
B ( 11, 11, 4, 3, 4)	MLT( 11, 11, 6, 1, 4)
QAT( 11, 11, 8, 0, 2)	EQA( 10, 10, 4, 1, 4)
MCO( 10, 9, 4, 1, 3)	SUI( 10, 10, 2, 2, 4)
POR( 9, 8, 4, 1, 3)	THA( 9, 9, 3, 1, 5)
CAN( 7, 7, 1, 3, 2)	GRC( 7, 7, 2, 2, 2)
AFS( 6, 4, 1, 0, 3)	BFA( 6, 6, 5, 0, 1)
HOL( 6, 3, 0, 2, 0)	PRG( 5, 5, 3, 2, 0)
S ( 5, 4, 2, 1, 1)	IND( 4, 4, 0, 2, 2)
CHL( 3, 3, 1, 1, 1)	KWT( 3, 3, 2, 1, 0)
AUS( 2, 2, 0, 1, 1)	AFG( 1, 1, 1, 0, 0)
CLN( 1, 1, 0, 0, 1)	GHA( 1, 1, 1, 0, 0)
J ( 1, 1, 0, 1, 0)	

NUMBER OF MARKERS IDENTIFIED - 114

** ( 90)	TU( 81)	BG( 34)	TK( 23)	PB( 17)	US( 17)	KD( 16)	LK( 16)	LM( 14)	MA( 14)
VR( 14)	IG( 12)	RQ( 12)	4N( 11)	MU( 11)	U7( 10)	ZM( 10)	8L( 9)	Z3( 9)	RB( 8)
SF( 8)	AN( 7)	FU( 7)	DA( 6)	WI( 6)	4F( 5)	7K( 5)	D3( 5)	HM( 5)	WA( 5)
1D( 4)	BL( 4)	K7( 4)	L8( 4)	MF( 4)	PL( 4)	S5( 4)	SM( 4)	VL( 4)	WM( 4)
AD( 3)	KM( 3)	MW( 3)	VG( 3)	7C( 2)	9F( 2)	AG( 2)	AK( 2)	B1( 2)	BD( 2)
BI( 2)	DR( 2)	G7( 2)	GA( 2)	GI( 2)	IK( 2)	IR( 2)	IU( 2)	JB( 2)	KV( 2)
LG( 2)	MI( 2)	MP( 2)	NI( 2)	RT( 2)	TG( 2)	TR( 2)	UF( 2)	UG( 2)	UI( 2)
UN( 2)	UR( 2)	VF( 2)	WG( 2)	1B( 1)	1F( 1)	1Q( 1)	4R( 1)	A5( 1)	AC( 1)
AR( 1)	AU( 1)	B7( 1)	BA( 1)	BB( 1)	CB( 1)	CG( 1)	CL( 1)	DG( 1)	DI( 1)
DU( 1)	FV( 1)	GK( 1)	GM( 1)	IG( 1)	KZ( 1)	L4( 1)	MG( 1)	NB( 1)	NV( 1)
PK( 1)	R5( 1)	R7( 1)	RK( 1)	SA( 1)	SB( 1)	SG( 1)	SW( 1)	TM( 1)	UD( 1)
VU( 1)	WU( 1)	XN( 1)	ZB( 1)						

NUMBER OF BROADCASTERS IDENTIFIED - 11

*B (240)	HET( 9)
TCH( 3)	URS( 2)
DW ( 2)	BBC( 2)
RL ( 2)	VOA( 2)
RBI( 2)	CUB( 1)

RFI( 1)

SEOUL, KOREA

NUMBER OF SCHEDULED OBSERVATIONS 184  
NUMBER OF OBSERVATIONS TOTAL 184  
NUMBER OF OBSERVATIONS UNHARMED 164  
NUMBER OF OBSERVATIONS INTERFERED 20  
NUMBER OF INTENTIONAL INTERFERENCE 15  
NUMBER OF UNINTENTIONAL INTERFERENCE 5

BROADCAST ADMINISTRATIONS MONITORED:

KOR( 59, 59, 0, 3, 0)	J ( 53, 53, 9, 0, 0)
AUS( 25, 25, 2, 0, 0)	INS( 9, 9, 0, 0, 0)
MRA( 8, 8, 0, 0, 0)	GUM( 6, 6, 3, 0, 0)
UAE( 5, 5, 0, 0, 0)	CHN( 4, 4, 0, 1, 0)
CHL( 2, 2, 0, 0, 0)	CVA( 2, 2, 0, 1, 0)
DDR( 2, 2, 0, 0, 0)	FNL( 2, 2, 1, 0, 0)
PHL( 2, 2, 0, 0, 0)	THA( 2, 2, 0, 0, 0)
ARS( 1, 1, 0, 0, 0)	BGD( 1, 1, 0, 0, 0)
NOR( 1, 1, 0, 0, 0)	

NUMBER OF MARKERS IDENTIFIED - 6

\*\* ( 4) FA( 3) KB( 3) IG( 2) SG( 2) ON( 1)

NUMBER OF BROADCASTERS IDENTIFIED - 3

PEKING ( 3) MOSKVA ( 1)  
TAIPEI ( 1)

NED HORST DEN BERG, NETHERLANDS

NUMBER OF SCHEDULED OBSERVATIONS 708  
NUMBER OF OBSERVATIONS TOTAL 708  
NUMBER OF OBSERVATIONS UNHARMED 209  
NUMBER OF OBSERVATIONS INTERFERED 499  
NUMBER OF INTENTIONAL INTERFERENCE 497  
NUMBER OF UNINTENTIONAL INTERFERENCE 1  
BOTH INTENTIONAL AND UNINTENTIONAL 1

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 55, 49, 0, 0)	DDR( 49, 49, 29, 0, 0)
E ( 45, 45, 29, 0, 0)	EGY( 40, 40, 28, 0, 0)
I ( 39, 39, 33, 0, 0)	CVA( 35, 35, 21, 0, 0)
TUR( 30, 30, 23, 0, 0)	ALG( 29, 29, 27, 0, 0)
UAE( 25, 25, 8, 1, 0)	MRC( 23, 23, 18, 0, 0)
CHN( 22, 22, 13, 0, 0)	KOR( 22, 22, 17, 0, 0)
MEX( 19, 19, 14, 0, 0)	TUN( 19, 19, 19, 0, 0)
LUX( 18, 18, 9, 0, 1)	FNL( 17, 17, 10, 0, 0)
PAK( 17, 17, 16, 0, 0)	BGD( 15, 15, 8, 0, 0)
NOR( 15, 15, 9, 0, 0)	ARS( 12, 12, 10, 0, 0)
BEL( 12, 12, 9, 0, 0)	AUT( 11, 11, 6, 0, 0)
B ( 11, 11, 8, 0, 0)	MLT( 11, 11, 10, 0, 0)
QAT( 11, 11, 8, 0, 0)	EQA( 10, 10, 7, 0, 0)
MCO( 10, 10, 8, 0, 0)	SUI( 10, 10, 6, 0, 0)

POR( 9, 9, 6, 0, 0)	THA( 9, 9, 7, 0, 0)
CAN( 7, 7, 2, 0, 0)	GRC( 7, 7, 6, 0, 0)
AFS( 6, 6, 5, 0, 0)	BFA( 6, 6, 5, 0, 0)
HOL( 6, 6, 1, 0, 0)	PRG( 5, 5, 3, 0, 0)
S ( 5, 5, 0, 0, 0)	IND( 4, 4, 2, 0, 0)
CHL( 3, 3, 2, 0, 0)	KWT( 3, 3, 3, 0, 0)
AUS( 2, 2, 1, 0, 0)	AFG( 1, 1, 1, 0, 0)
CLN( 1, 1, 0, 0, 0)	GHA( 1, 1, 1, 0, 0)
J ( 1, 1, 0, 0, 0)	

NUMBER OF MARKERS IDENTIFIED - 112

TU( 86)	BG( 34)	** ( 30)	LM( 25)	TK( 25)	FU( 23)	KD( 23)	RB( 23)	U7( 21)	AN( 20)
WA( 20)	IG( 19)	MU( 16)	PB( 14)	RQ( 14)	DU( 13)	BD( 12)	US( 12)	4F( 11)	SF( 11)
VR( 11)	WI( 11)	4N( 10)	DR( 10)	DA( 9)	G7( 9)	K7( 9)	UN( 9)	7K( 8)	LK( 8)
MA( 7)	SU( 7)	B1( 6)	GI( 6)	HM( 6)	MF( 6)	NS( 6)	1D( 5)	AG( 5)	RT( 5)
SM( 5)	VG( 5)	WD( 5)	Z3( 5)	NI( 4)	P6( 4)	PL( 4)	R6( 4)	S5( 4)	BL( 3)
A5( 3)	BL( 3)	CG( 3)	FL( 3)	IR( 3)	LG( 3)	PA( 3)	ST( 3)	VN( 3)	WM( 3)
XU( 3)	AK( 2)	CB( 2)	L4( 2)	L8( 2)	LF( 2)	MG( 2)	MP( 2)	R9( 2)	XN( 2)
ZA( 2)	ZM( 2)	4Q( 1)	7U( 1)	AF( 1)	AU( 1)	B9( 1)	D4( 1)	D7( 1)	DF( 1)
DP( 1)	EB( 1)	FG( 1)	FI( 1)	GI( 1)	GR( 1)	GS( 1)	HP( 1)	HU( 1)	K4( 1)
KB( 1)	KI( 1)	KM( 1)	KV( 1)	M3( 1)	MX( 1)	NF( 1)	NL( 1)	NM( 1)	PR( 1)
RD( 1)	RG( 1)	S7( 1)	TR( 1)	UD( 1)	UQ( 1)	UZ( 1)	V4( 1)	VU( 1)	W4( 1)
WF( 1)	WG( 1)								

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 2

VOA( 1) \*B( 1)

SKI, NORWAY

NUMBER OF SCHEDULED OBSERVATIONS 708

NUMBER OF OBSERVATIONS TOTAL 674

NUMBER OF OBSERVATIONS UNHARMED 145

NUMBER OF OBSERVATIONS INTERFERED 529

NUMBER OF INTENTIONAL INTERFERENCE 488

NUMBER OF UNINTENTIONAL INTERFERENCE 32

BOTH INTENTIONAL AND UNINTENTIONAL 9

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 53, 48, 1, 0)	DDR( 49, 47, 29, 2, 0)
E ( 45, 44, 29, 2, 2)	EGY( 40, 40, 32, 1, 1)
I ( 39, 39, 31, 3, 0)	CVA( 35, 33, 20, 0, 3)
TUR( 30, 27, 25, 0, 0)	ALG( 29, 27, 22, 2, 0)
UAE( 25, 24, 11, 3, 1)	MRC( 23, 22, 15, 2, 0)
CHN( 22, 20, 16, 3, 0)	KOR( 22, 19, 18, 1, 0)
MEX( 19, 15, 9, 2, 0)	TUN( 19, 19, 18, 0, 0)
LUX( 18, 17, 11, 2, 0)	FNL( 17, 17, 7, 0, 0)
PAK( 17, 16, 15, 0, 0)	BGD( 15, 14, 8, 1, 0)
NOR( 15, 13, 8, 1, 0)	ARS( 12, 11, 10, 0, 0)
BEL( 12, 12, 10, 1, 0)	AUT( 11, 11, 6, 0, 0)
B ( 11, 11, 8, 1, 0)	MLT( 11, 11, 6, 0, 0)
QAT( 11, 11, 10, 0, 0)	EQA( 10, 10, 8, 0, 1)
MCO( 10, 8, 5, 1, 0)	SUI( 10, 10, 6, 0, 0)
POR( 9, 9, 5, 0, 0)	THA( 9, 9, 7, 0, 1)
CAN( 7, 7, 2, 0, 0)	GRC( 7, 7, 5, 1, 0)
AFS( 6, 6, 6, 0, 0)	BFA( 6, 6, 4, 0, 0)
HOL( 6, 6, 1, 0, 0)	PRG( 5, 3, 2, 1, 0)
S ( 5, 5, 4, 0, 0)	IND( 4, 3, 1, 0, 0)

CHL( 3, 3, 3, 0, 0)	KWT( 3, 3, 2, 0, 0)
AUS( 2, 2, 1, 0, 0)	AFG( 1, 1, 1, 0, 0)
CLN( 1, 1, 1, 0, 0)	GHA( 1, 1, 1, 0, 0)
J ( 1, 1, 0, 1, 0)	

NUMBER OF JAMMER IDENTIFIERS - 102

TU( 68)	WA( 32)	IG( 31)	RB( 28)	TK( 26)	BG( 24)	WI( 23)	DU( 20)	GI( 20)	4F( 18)
** ( 17)	US( 15)	MU( 14)	NI( 14)	DR( 13)	FU( 13)	VR( 13)	KD( 12)	LM( 12)	PB( 12)
4N( 10)	VG( 10)	7K( 9)	AN( 9)	FL( 8)	LK( 8)	RQ( 8)	MF( 7)	NS( 7)	SU( 7)
U7( 7)	BD( 6)	K7( 6)	KF( 6)	SM( 6)	WM( 6)	ID( 5)	G7( 5)	VN( 5)	DA( 4)
HM( 4)	IR( 4)	PL( 4)	SF( 4)	WD( 4)	XN( 4)	XU( 4)	ZM( 4)	AG( 3)	AU( 3)
BL( 3)	CG( 3)	LG( 3)	MW( 3)	R9( 3)	UQ( 3)	WG( 3)	Z3( 3)	8L( 2)	BI( 2)
BU( 2)	CB( 2)	D3( 2)	HP( 2)	MA( 2)	BT( 2)	RV( 2)	S7( 2)	UR( 2)	VI( 2)
WQ( 2)	XI( 2)	1K( 1)	A5( 1)	AD( 1)	AK( 1)	B3( 1)	BN( 1)	D7( 1)	FG( 1)
FR( 1)	GA( 1)	GM( 1)	GS( 1)	KM( 1)	L4( 1)	M8( 1)	MG( 1)	MP( 1)	MS( 1)
MX( 1)	NB( 1)	NM( 1)	ST( 1)	TR( 1)	TY( 1)	UB( 1)	UM( 1)	UN( 1)	VF( 1)
W1( 1)	XM( 1)								

NUMBER OF BROADCASTERS IDENTIFIED - 11

*B( 16)	URS( 6)
MOSCOW( 2)	STANSE RODJENA( 2)
R.MOSCOW( 2)	CAN( 1)
BBC( 1)	DENMARK( 1)
VOA( 1)	R.HAVANA( 1)
SUI( 1)	

MONZA, ITALY

NUMBER OF SCHEDULED OBSERVATIONS 708  
NUMBER OF OBSERVATIONS TOTAL 386  
NUMBER OF OBSERVATIONS UNHARMED 64  
NUMBER OF OBSERVATIONS INTERFERED 322  
NUMBER OF INTENTIONAL INTERFERENCE 241  
NUMBER OF UNINTENTIONAL INTERFERENCE 45  
BOTH INTENTIONAL AND UNINTENTIONAL 36

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 22, 15, 3, 1)	DDR( 49, 30, 18, 2, 2)
E ( 45, 26, 15, 6, 2)	EGY( 40, 21, 18, 0, 1)
I ( 39, 30, 20, 2, 6)	CVA( 35, 18, 7, 4, 3)
TUR( 30, 12, 11, 1, 0)	ALG( 29, 16, 11, 2, 2)
UAE( 25, 8, 7, 0, 0)	MRC( 23, 7, 3, 1, 0)
CHN( 22, 17, 8, 6, 1)	KOR( 22, 14, 9, 2, 2)
MEX( 19, 10, 7, 0, 2)	TUN( 19, 11, 8, 1, 1)
LUX( 18, 11, 8, 0, 1)	FNL( 17, 10, 4, 2, 3)
PAK( 17, 13, 11, 0, 1)	BGD( 15, 11, 5, 2, 0)
NOR( 15, 4, 2, 1, 1)	ARS( 12, 10, 6, 0, 2)
BEL( 12, 10, 5, 0, 1)	AUT( 11, 4, 1, 0, 0)
B ( 11, 9, 9, 0, 0)	MLT( 11, 6, 2, 1, 1)
QAT( 11, 9, 8, 1, 0)	EQA( 10, 0, 0, 0, 0)
MCO( 10, 6, 4, 0, 1)	SUI( 10, 3, 1, 0, 0)
POR( 9, 5, 2, 2, 0)	THA( 9, 0, 0, 0, 0)
CAN( 7, 5, 4, 0, 0)	GRC( 7, 1, 1, 0, 0)
AFS( 6, 4, 3, 1, 0)	BFA( 6, 4, 2, 1, 1)
HOL( 6, 3, 0, 1, 0)	PRG( 5, 4, 2, 1, 0)
S ( 5, 3, 0, 1, 1)	IND( 4, 0, 0, 0, 0)
CHL( 3, 2, 0, 1, 0)	KWT( 3, 3, 2, 0, 0)

AUS( 2, 1, 0, 0, 0)      AFG( 1, 1, 1, 0, 0)  
 CLN( 1, 0, 0, 0, 0)      GHA( 1, 1, 1, 0, 0)  
 J ( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 100

TU( 45) \*( 26) LM( 23) BG( 21) US( 21) KD( 19) PB( 18) ZM( 18) 4N( 16) 1G( 15)  
 MU( 15) U7( 12) RB( 11) AG( 10) TK( 10) AN( 9) FU( 9) G7( 9) HM( 9) R9( 9)  
 SF( 9) WI( 9) CB( 7) DA( 7) AD( 6) LK( 6) 1D( 5) BL( 5) CG( 5) DR( 5)  
 MF( 5) WG( 5) 4F( 4) AU( 4) BD( 4) SM( 4) Z3( 4) 7K( 3) FL( 3) K7( 3)  
 MA( 3) MX( 3) PK( 3) RP( 3) RT( 3) UM( 3) XU( 3) 5G( 2) BU( 2) C1( 2)  
 FB( 2) G3( 2) 15( 2) IR( 2) KM( 2) LA( 2) NS( 2) UZ( 2) WA( 2) WD( 2)  
 WM( 2) XD( 2) XN( 2) 5F( 1) 8L( 1) A5( 1) AB( 1) B1( 1) BI( 1) BK( 1)  
 BQ( 1) D3( 1) DB( 1) DK( 1) DM( 1) F1( 1) FS( 1) GD( 1) GF( 1) GI( 1)  
 GL( 1) GS( 1) GU( 1) IB( 1) LG( 1) MD( 1) MG( 1) NM( 1) NW( 1) PG( 1)  
 TD( 1) TR( 1) UF( 1) VR( 1) VU( 1) WB( 1) WF( 1) WQ( 1) WZ( 1) ZA( 1)

NUMBER OF BROADCASTERS IDENTIFIED - 11

\*B( 55)      URS( 11)  
 HOL( 1)      ROU( 1)  
 POR( 1)      POL( 1)  
 AFG( 1)      RFE/RL( 1)  
 TCH( 1)      D( 1)  
 F( 1)

VIENNA, AUSTRIA

NUMBER OF SCHEDULED OBSERVATIONS 703  
 NUMBER OF OBSERVATIONS TOTAL 559  
 NUMBER OF OBSERVATIONS UNHARMED 45  
 NUMBER OF OBSERVATIONS INTERFERED 514  
 NUMBER OF INTENTIONAL INTERFERENCE 373  
 NUMBER OF UNINTENTIONAL INTERFERENCE 65  
 BOTH INTENTIONAL AND UNINTENTIONAL 76

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 46, 40, 3, 1)	DDR( 49, 39, 29, 4, 5)
E ( 45, 35, 20, 4, 9)	EGY( 40, 29, 22, 3, 4)
I ( 39, 30, 24, 1, 3)	CVA( 35, 28, 14, 5, 4)
TUR( 30, 25, 16, 2, 4)	ALG( 29, 22, 14, 3, 3)
UAE( 25, 17, 9, 2, 5)	MRC( 23, 17, 13, 1, 1)
CHN( 22, 19, 10, 5, 4)	KOR( 22, 18, 13, 2, 3)
MEX( 19, 16, 11, 0, 2)	TUN( 19, 17, 17, 0, 0)
LUX( 18, 15, 9, 1, 0)	FNL( 17, 16, 6, 1, 9)
PAK( 17, 14, 12, 0, 2)	BGD( 15, 11, 4, 6, 0)
NOR( 15, 13, 9, 2, 1)	ARS( 12, 10, 7, 0, 1)
BEL( 12, 11, 10, 1, 0)	AUT( 11, 9, 4, 0, 1)
B ( 11, 10, 5, 1, 1)	MLT( 11, 9, 4, 1, 3)
QAT( 11, 10, 10, 0, 0)	EQA( 10, 7, 4, 2, 1)
MCO( 10, 10, 8, 1, 0)	SUI( 10, 7, 5, 1, 1)
POR( 9, 5, 3, 1, 0)	THA( 9, 5, 1, 3, 1)
CAN( 7, 5, 0, 2, 2)	GRC( 7, 4, 2, 0, 2)
AFS( 6, 6, 3, 2, 1)	BFA( 6, 6, 5, 0, 1)
HOL( 6, 3, 0, 2, 0)	PRG( 5, 5, 3, 2, 0)
S ( 5, 5, 3, 1, 1)	IND( 4, 1, 1, 0, 0)
CHL( 3, 1, 1, 0, 0)	KWT( 3, 2, 2, 0, 0)
AUS( 2, 2, 2, 0, 0)	AFG( 1, 0, 0, 0, 0)
CLN( 1, 1, 0, 1, 0)	GHA( 1, 1, 0, 0, 0)



J ( 1, 0, 0, 0, 0)

NUMBER OF MARKERS RECORDED - 83

TU( 57)	44( 36)	IG( 28)	US( 28)	BG( 27)	SF( 26)	ID( 24)	TK( 23)	** ( 21)	LM( 20)
4N( 19)	DR( 17)	ZM( 17)	AN( 14)	RB( 14)	FU( 13)	PB( 12)	WD( 12)	KD( 11)	DA( 10)
DU( 10)	VR( 10)	WI( 10)	33( 9)	8L( 9)	LK( 9)	MA( 9)	AG( 8)	B1( 8)	SU( 7)
WG( 7)	7K( 6)	FG( 6)	UN( 6)	G7( 5)	MF( 5)	PK( 5)	4F( 4)	HM( 4)	IR( 4)
SM( 4)	U7( 4)	VG( 4)	XN( 4)	BD( 3)	BL( 3)	GI( 3)	LG( 3)	PL( 3)	RQ( 3)
XI( 3)	BQ( 2)	CB( 2)	FA( 2)	FL( 2)	K7( 2)	MG( 2)	MU( 2)	NS( 2)	RT( 2)
TR( 2)	WA( 2)	WM( 2)	ZA( 2)	3D( 1)	AD( 1)	AR( 1)	BI( 1)	BU( 1)	CG( 1)
F3( 1)	FR( 1)	L4( 1)	L8( 1)	MP( 1)	NI( 1)	R6( 1)	RD( 1)	U5( 1)	UB( 1)
UR( 1)	VL( 1)	W4( 1)							

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 13

*B( 87)	URS( 12)
BBC( 4)	RFE( 2)
DW( 2)	BUL( 2)
VOA( 2)	RFI( 2)
AUT( 2)	RIAS( 1)
RCI( 1)	FRANCE( 1)
ROU( 1)	

VOA - HESINKI, FINLAND

NUMBER OF SCHEDULED OBSERVATIONS 708

NUMBER OF OBSERVATIONS TOTAL 220

NUMBER OF OBSERVATIONS UNHARMED 18

NUMBER OF OBSERVATIONS INTERFERED 202

NUMBER OF INTENTIONAL INTERFERENCE 161

NUMBER OF UNINTENTIONAL INTERFERENCE 23

BOTH INTENTIONAL AND UNINTENTIONAL 18

BROADCAST ADMINISTRATIONS MONITORED:

YUG( 55, 17, 15, 1, 1)	DDR( 49, 20, 17, 0, 0)
E ( 45, 15, 12, 3, 0)	EGY( 40, 23, 13, 3, 3)
I ( 39, 17, 15, 0, 2)	CVA( 35, 14, 8, 4, 2)
TUR( 30, 6, 6, 0, 0)	ALG( 29, 15, 13, 1, 0)
UAE( 25, 9, 5, 2, 0)	MRC( 23, 6, 2, 0, 3)
CHN( 22, 8, 4, 3, 1)	KOR( 22, 2, 2, 0, 0)
MEX( 19, 6, 4, 0, 1)	TUN( 19, 1, 1, 0, 0)
LUX( 18, 4, 2, 0, 0)	FNL( 17, 2, 2, 0, 0)
PAK( 17, 6, 5, 0, 1)	BGD( 15, 2, 2, 0, 0)
NOR( 15, 4, 4, 0, 0)	ARS( 12, 10, 9, 0, 1)
BEL( 12, 0, 0, 0, 0)	AUT( 11, 3, 3, 0, 0)
B ( 11, 4, 3, 0, 0)	MLT( 11, 0, 0, 0, 0)
QAT( 11, 2, 2, 0, 0)	EQA( 10, 3, 2, 0, 1)
MCO( 10, 4, 3, 1, 0)	SUI( 10, 2, 1, 0, 0)
POR( 9, 3, 0, 2, 0)	THA( 9, 2, 1, 0, 1)
CAN( 7, 1, 0, 0, 0)	GRC( 7, 1, 1, 0, 0)
AFS( 6, 3, 1, 1, 1)	BFA( 6, 0, 0, 0, 0)
HOL( 6, 0, 0, 0, 0)	PRG( 5, 1, 0, 1, 0)
S ( 5, 0, 0, 0, 0)	IND( 4, 2, 2, 0, 0)
CHL( 3, 1, 0, 1, 0)	KWT( 3, 0, 0, 0, 0)
AUS( 2, 0, 0, 0, 0)	AFG( 1, 1, 1, 0, 0)
CLN( 1, 0, 0, 0, 0)	GHA( 1, 0, 0, 0, 0)
J ( 1, 0, 0, 0, 0)	

NUMBER OF MARKERS IDENTIFIED - 69

\*\* ( 21 ) TK ( 12 ) CB ( 11 ) 7K ( 10 ) MU ( 10 ) WA ( 10 ) RB ( 9 ) DA ( 8 ) SM ( 8 ) WM ( 8 )  
 4F ( 7 ) LM ( 7 ) PB ( 6 ) SF ( 6 ) US ( 6 ) 4N ( 5 ) BG ( 5 ) HM ( 5 ) UQ ( 5 ) NS ( 4 )  
 TU ( 4 ) CG ( 3 ) G1 ( 3 ) KD ( 3 ) SB ( 3 ) SU ( 3 ) UN ( 3 ) WD ( 3 ) ZM ( 3 ) AD ( 2 )  
 AG ( 2 ) D3 ( 2 ) FU ( 2 ) IR ( 2 ) LK ( 2 ) PL ( 2 ) VI ( 2 ) 1B ( 1 ) 1G ( 1 ) A5 ( 1 )  
 AN ( 1 ) AR ( 1 ) AS ( 1 ) B1 ( 1 ) CA ( 1 ) FG ( 1 ) FL ( 1 ) FR ( 1 ) GI ( 1 ) GU ( 1 )  
 HP ( 1 ) JF ( 1 ) K7 ( 1 ) LG ( 1 ) MA ( 1 ) MW ( 1 ) NA ( 1 ) PG ( 1 ) PK ( 1 ) RL ( 1 )  
 RP ( 1 ) U7 ( 1 ) UD ( 1 ) UR ( 1 ) VL ( 1 ) VM ( 1 ) WI ( 1 ) Z1 ( 1 ) ZD ( 1 )

NUMBER OF BROADCASTERS IDENTIFIED - 15

URS ( 13 ) AUT ( 5 )  
 RFE ( 3 ) GBR ( 3 )  
 DLD ( 2 ) BBC ( 1 )  
 UAE ( 1 ) RLD ( 1 )  
 FRA ( 1 ) SUI ( 1 )  
 KAV ( 1 ) TCH ( 1 )  
 URS ( 1 ) KAV ( 1 )  
 VOA ( 1 )

VOA - HONG KONG

NUMBER OF SCHEDULED OBSERVATIONS 273

NUMBER OF OBSERVATIONS TOTAL 272

NUMBER OF OBSERVATIONS UNHARMED 124

NUMBER OF OBSERVATIONS INTERFERED 148

NUMBER OF INTENTIONAL INTERFERENCE 99

NUMBER OF UNINTENTIONAL INTERFERENCE 44

BOTH INTENTIONAL AND UNINTENTIONAL 5

BROADCAST ADMINISTRATIONS MONITORED:

CHN ( 63, 63, 21, 20, 0 )	IND ( 32, 32, 16, 4, 1 )
PHL ( 25, 25, 7, 0, 0 )	J ( 20, 20, 15, 0, 1 )
KOR ( 19, 19, 7, 6, 1 )	MRA ( 18, 18, 5, 4, 0 )
THA ( 15, 15, 1, 0, 0 )	UAE ( 15, 14, 5, 3, 0 )
CVA ( 10, 10, 1, 0, 0 )	PAK ( 9, 9, 6, 1, 0 )
AUS ( 8, 8, 0, 3, 2 )	BRM ( 7, 7, 0, 0, 0 )
INS ( 5, 5, 0, 0, 0 )	S ( 5, 5, 2, 0, 0 )
SUI ( 5, 5, 0, 1, 0 )	MLT ( 4, 4, 4, 0, 0 )
BGD ( 3, 3, 2, 0, 0 )	DDR ( 3, 3, 1, 2, 0 )
YUG ( 3, 3, 3, 0, 0 )	CLN ( 2, 2, 2, 0, 0 )
ARS ( 1, 1, 1, 0, 0 )	GUM ( 1, 1, 0, 0, 0 )

NUMBER OF MARKERS IDENTIFIED - 11

\*\* ( 42 ) FU ( 12 ) AG ( 10 ) 4F ( 9 ) LK ( 9 ) DA ( 6 ) MU ( 4 ) BG ( 3 ) FA ( 3 ) KD ( 2 )  
 5F ( 1 )

NUMBER OF BROADCASTERS IDENTIFIED - 14

MOSCOW ( 12 )	AFRTS ( 9 )
JAPAN ( 4 )	AUST ( 3 )
VOA ( 2 )	AUSTRALIA ( 2 )
*B ( 2 )	FEBC ( 2 )
MOSCOW.CHINESE ( 1 )	VOA-AFRTS ( 1 )
R.MOSCOW ( 1 )	KTWG.CHINESE ( 1 )
BEIJING.CHN ( 1 )	CHN ( 1 )

VOA - ISLAMABAD, PAKISTAN

NUMBER OF SCHEDULED OBSERVATIONS 272  
NUMBER OF OBSERVATIONS TOTAL 226  
NUMBER OF OBSERVATIONS UNHARMED 40  
NUMBER OF OBSERVATIONS INTERFERED 186  
NUMBER OF INTENTIONAL INTERFERENCE 138  
NUMBER OF UNINTENTIONAL INTERFERENCE 48

BROADCAST ADMINISTRATIONS MONITORED:

CHN( 62, 45, 29, 8, 0)	IND( 32, 30, 16, 10, 0)
PHL( 25, 21, 8, 11, 0)	J ( 20, 18, 11, 2, 0)
KOR( 19, 17, 12, 4, 0)	MRA( 18, 17, 17, 0, 0)
THA( 15, 15, 11, 4, 0)	UAE( 15, 8, 6, 0, 0)
CVA( 10, 8, 1, 0, 0)	PAK( 9, 7, 1, 0, 0)
AUS( 8, 7, 3, 2, 0)	BRM( 7, 5, 4, 0, 0)
INS( 5, 5, 4, 0, 0)	S ( 5, 4, 3, 1, 0)
SUI( 5, 4, 2, 2, 0)	MLT( 4, 3, 1, 2, 0)
BGD( 3, 3, 3, 0, 0)	DDR( 3, 2, 2, 0, 0)
YUG( 3, 3, 2, 1, 0)	CLN( 2, 2, 1, 0, 0)
ARS( 1, 1, 0, 1, 0)	GUM( 1, 1, 1, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 1

\*\*(131)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 24

VOA( 8)	*B( 7)
R. INDIA( 5)	R. AFG( 4)
R. DW( 2)	R. MOSCOW( 2)
R. AUS( 1)	R. VOA( 1)
R. KOREA( 1)	R. DELHI VOA( 1)
R. CHN( 1)	R. ALL INDIA( 1)
R. BANGKOK( 1)	R. DELHI( 1)
CHN( 1)	PHL( 1)
R. ALIGARH( 1)	R. BAKUE( 1)
R. BEIRUT( 1)	R. FREE IRAN( 1)
BBC( 1)	SWISS( 1)
R. AUSTRALIA( 1)	VOA (UZBEK)( 1)

ANCHORAGE, ALASKA USA

NUMBER OF SCHEDULED OBSERVATIONS 274  
NUMBER OF OBSERVATIONS TOTAL 271  
NUMBER OF OBSERVATIONS UNHARMED 130  
NUMBER OF OBSERVATIONS INTERFERED 141  
NUMBER OF INTENTIONAL INTERFERENCE 127  
NUMBER OF UNINTENTIONAL INTERFERENCE 11  
NUMBER OF BOTH 3

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 51, 17, 1, 0)	E ( 29, 29, 20, 1, 0)
EQA( 23, 21, 11, 0, 1)	CAN( 22, 22, 9, 0, 0)
ATG( 19, 19, 0, 0, 0)	SLV( 19, 19, 13, 1, 0)
GHA( 12, 12, 9, 0, 0)	ATN( 11, 11, 2, 1, 0)
THA( 11, 11, 5, 1, 0)	RRW( 10, 10, 4, 0, 0)
DDR( 7, 7, 3, 0, 0)	POR( 7, 7, 3, 1, 0)

UAEC( 7, 7, 3, 0, 0)	AUT( 6, 6, 2, 0, 0)
EGY( 6, 6, 2, 2, 1)	S ( 6, 6, 5, 1, 0)
URGC( 5, 5, 0, 0, 0)	KOR( 4, 4, 2, 0, 0)
AUS( 3, 3, 2, 0, 0)	MLT( 3, 3, 1, 0, 0)
PRGC( 3, 3, 2, 0, 1)	B ( 2, 2, 1, 0, 0)
BEL( 2, 2, 1, 0, 0)	CHL( 2, 2, 2, 0, 0)
GRCC( 2, 2, 1, 1, 0)	HTIC( 2, 2, 2, 0, 0)
SUI( 2, 2, 1, 0, 0)	YUG( 2, 2, 2, 0, 0)
CHNC( 1, 1, 1, 0, 0)	FNL( 1, 1, 1, 0, 0)
I ( 1, 1, 0, 1, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 58

** ( 21)	KB( 19)	GM( 14)	GR( 14)	IG( 13)	FA( 9)	VR( 9)	DA( 6)	MU( 6)	TK( 5)
WM( 5)	ZM( 5)	LK( 4)	WA( 4)	XR( 4)	IG( 3)	WD( 3)	WI( 3)	AG( 2)	AN( 2)
BA( 2)	CB( 2)	K7( 2)	NU( 2)	NW( 2)	PK( 2)	UA( 2)	WL( 2)	ZD( 2)	4N( 1)
66( 1)	7K( 1)	BN( 1)	CG( 1)	CK( 1)	DB( 1)	DR( 1)	FM( 1)	FU( 1)	GA( 1)
GI( 1)	GU( 1)	KA( 1)	KF( 1)	KU( 1)	LF( 1)	LR( 1)	NS( 1)	PF( 1)	PM( 1)
PU( 1)	RD( 1)	SF( 1)	UD( 1)	UZ( 1)	VG( 1)	ZN( 1)	ZT( 1)		

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 2

\*B( 12) RADIO MOSCOW( 1)

ALLEGAN, MICHIGAN USA

NUMBER OF SCHEDULED OBSERVATIONS 274

NUMBER OF OBSERVATIONS TOTAL 272

NUMBER OF OBSERVATIONS UNHARMED 157

NUMBER OF OBSERVATIONS INTERFERED 115

NUMBER OF INTENTIONAL INTERFERENCE 41

NUMBER OF UNINTENTIONAL INTERFERENCE 71

NUMBER OF BOTH 3

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 51, 4, 11, 0)	E ( 29, 29, 5, 5, 0)
EQAC( 23, 23, 7, 3, 1)	CANC( 22, 22, 0, 3, 0)
ATGC( 19, 18, 0, 0, 0)	SLVC( 19, 19, 11, 3, 1)
GHA( 12, 12, 0, 9, 0)	ATNC( 11, 11, 0, 3, 0)
THAC( 11, 11, 2, 6, 0)	RRWC( 10, 10, 2, 1, 0)
DDR( 7, 7, 0, 3, 0)	POR( 7, 7, 0, 2, 0)
UAEC( 7, 6, 1, 2, 0)	AUT( 6, 6, 2, 2, 0)
EGY( 6, 6, 0, 3, 0)	S ( 6, 6, 1, 0, 0)
URGC( 5, 5, 1, 3, 0)	KOR( 4, 4, 0, 3, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 2, 0)
PRGC( 3, 3, 0, 1, 1)	B ( 2, 2, 1, 0, 0)
BEL( 2, 2, 0, 1, 0)	CHL( 2, 2, 0, 1, 0)
GRCC( 2, 2, 0, 2, 0)	HTIC( 2, 2, 2, 0, 0)
SUI( 2, 2, 1, 1, 0)	YUG( 2, 2, 1, 0, 0)
CHNC( 1, 1, 0, 1, 0)	FNL( 1, 1, 0, 0, 0)
I ( 1, 1, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 29

** ( 5)	PB( 5)	D3( 3)	GI( 3)	GR( 3)	TU( 3)	VR( 3)	FA( 2)	LM( 2)	WA( 2)
4F( 1)	AD( 1)	AG( 1)	AN( 1)	B1( 1)	DR( 1)	DU( 1)	IR( 1)	K7( 1)	KN( 1)
LK( 1)	NS( 1)	RB( 1)	TK( 1)	U7( 1)	VG( 1)	VI( 1)	WQ( 1)	ZA( 1)	

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 7

\*B( 64) BBC( 2)

RA NIPPON( 1) RFI( 1)  
RA HABANA( 1) RA MOSCOW( 1)  
RTTY( 1)

BELFAST, MAINE USA

NUMBER OF SCHEDULED OBSERVATIONS 274  
NUMBER OF OBSERVATIONS TOTAL 271  
NUMBER OF OBSERVATIONS UNHARMED 186  
NUMBER OF OBSERVATIONS INTERFERED 85  
NUMBER OF INTENTIONAL INTERFERENCE 70  
NUMBER OF UNINTENTIONAL INTERFERENCE 15  
NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 51, 10, 4, 0)	E ( 29, 29, 10, 0, 0)
EQA( 23, 23, 13, 0, 0)	CANC( 22, 21, 2, 1, 0)
ATG( 19, 19, 0, 0, 0)	SLV( 19, 19, 9, 0, 0)
GHA( 12, 12, 1, 0, 0)	ATN( 11, 11, 0, 0, 0)
THA( 11, 11, 1, 1, 0)	BRW( 10, 10, 3, 0, 0)
DDR( 7, 7, 0, 1, 0)	POR( 7, 7, 3, 0, 0)
UAE( 7, 7, 4, 1, 0)	AUT( 6, 6, 1, 0, 0)
EGY( 6, 6, 1, 3, 0)	S ( 6, 6, 0, 0, 0)
URG( 5, 5, 2, 1, 0)	KOR( 4, 4, 1, 1, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 1, 0)
PRG( 3, 3, 2, 1, 0)	B ( 2, 1, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 2, 1, 0, 0)
GRC( 2, 2, 1, 0, 0)	HTI( 2, 2, 1, 0, 0)
SUI( 2, 2, 1, 0, 0)	YUG( 2, 2, 1, 0, 0)
CHN( 1, 1, 1, 0, 0)	FNL( 1, 1, 0, 0, 0)
I ( 1, 1, 1, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 40

\*\* ( 8) PB( 8) TU( 7) LM( 6) LG( 5) WA( 5) LK( 4) MU( 3) IG( 2) 4F( 2)  
AG( 2) BG( 2) BI( 2) GI( 2) MP( 2) NL( 2) NS( 2) TK( 2) U7( 2) VR( 2)  
XN( 2) 77( 1) 7K( 1) AN( 1) BL( 1) D3( 1) K7( 1) KH( 1) KV( 1) MG( 1)  
MI( 1) NI( 1) NI( 1) RS( 1) S1( 1) TG( 1) US( 1) WD( 1) WI( 1) WQ( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 3

\*B( 12) ANTIGUA( 1)  
RADIO MOSCOW( 1)

DOUGLAS, ARIZONA USA

NUMBER OF SCHEDULED OBSERVATIONS 274  
NUMBER OF OBSERVATIONS TOTAL 272  
NUMBER OF OBSERVATIONS UNHARMED 190  
NUMBER OF OBSERVATIONS INTERFERED 82  
NUMBER OF INTENTIONAL INTERFERENCE 68  
NUMBER OF UNINTENTIONAL INTERFERENCE 14  
NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 52, 12, 3, 0) E ( 29, 29, 12, 0, 0)

EQA( 23, 23, 4, 2, 0)	CAN( 22, 21, 1, 0, 0)
ATG( 19, 19, 0, 0, 0)	SLV( 19, 19, 11, 1, 0)
GHA( 12, 12, 7, 0, 0)	ATN( 11, 11, 1, 1, 0)
THA( 11, 11, 3, 0, 0)	RRW( 10, 10, 2, 0, 0)
DDR( 7, 7, 0, 1, 0)	POR( 7, 7, 1, 0, 0)
UAE( 7, 7, 3, 0, 0)	AUT( 6, 6, 2, 0, 0)
EGY( 6, 6, 1, 2, 0)	S ( 6, 6, 1, 0, 0)
URG( 5, 5, 0, 2, 0)	KOR( 4, 4, 2, 1, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 2, 0, 0, 0)
PRG( 3, 3, 2, 0, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 1, 0, 0)	CHL( 2, 2, 0, 0, 0)
GRC( 2, 2, 0, 0, 0)	HTI( 2, 2, 0, 0, 0)
SUI( 2, 2, 0, 0, 0)	YUG( 2, 2, 1, 0, 0)
CHN( 1, 1, 0, 0, 0)	FNL( 1, 1, 1, 0, 0)
I ( 1, 1, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 29

\*\* ( 16) GR( 12) VR( 8) IG( 7) FA( 6) KB( 5) LM( 2) MU( 2) PB( 2) 66( 1)  
 77( 1) BD( 1) DG( 1) DK( 1) DL( 1) DU( 1) GI( 1) GN( 1) KD( 1) LB( 1)  
 LK( 1) PD( 1) TU( 1) VA( 1) WD( 1) WL( 1) XN( 1) XR( 1) ZM( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 1

\*B( 13)

FERNDAL, WASHINGTON USA

NUMBER OF SCHEDULED OBSERVATIONS 274

NUMBER OF OBSERVATIONS TOTAL 274

NUMBER OF OBSERVATIONS UNHARMED 167

NUMBER OF OBSERVATIONS INTERFERED 107

NUMBER OF INTENTIONAL INTERFERENCE 77

NUMBER OF UNINTENTIONAL INTERFERENCE 30

NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 51, 10, 4, 0)	E ( 29, 29, 10, 0, 0)
EQA( 23, 23, 13, 0, 0)	CAN( 22, 21, 2, 1, 0)
ATG( 19, 19, 0, 0, 0)	SLV( 19, 19, 9, 0, 0)
GHA( 12, 12, 1, 0, 0)	ATN( 11, 11, 0, 0, 0)
THA( 11, 11, 1, 1, 0)	RRW( 10, 10, 3, 0, 0)
DDR( 7, 7, 0, 1, 0)	POR( 7, 7, 3, 0, 0)
UAE( 7, 7, 4, 1, 0)	AUT( 6, 6, 1, 0, 0)
EGY( 6, 6, 1, 3, 0)	S ( 6, 6, 0, 0, 0)
URG( 5, 5, 2, 1, 0)	KOR( 4, 4, 1, 1, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 1, 0)
PRG( 3, 3, 2, 1, 0)	B ( 2, 1, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 2, 1, 0, 0)
GRC( 2, 2, 1, 0, 0)	HTI( 2, 2, 1, 0, 0)
SUI( 2, 2, 1, 0, 0)	YUG( 2, 2, 1, 0, 0)
CHN( 1, 1, 1, 0, 0)	FNL( 1, 1, 0, 0, 0)
I ( 1, 1, 1, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 33

IG( 13) GR( 12) KB( 11) FA( 9) \*( 7) VR( 7) XR( 3) ZT( 3) 7K( 2) AG( 2)  
 BA( 2) LK( 2) NW( 2) UD( 2) VG( 2) WI( 2) WL( 2) \*B( 1) 66( 1) 77( 1)  
 BN( 1) CB( 1) DU( 1) FM( 1) GM( 1) GU( 1) LM( 1) PB( 1) SB( 1) SM( 1)  
 U7( 1) ZM( 1) ZN( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 12  
 \*B ( 15) RADIO MOSCOW ( 3)  
 URS ( 1) SACKVILLE (RCI) ( 1)  
 BBC-SPANISH ( 1) RTTY ( 1)  
 WHRI ( 1) CUB ( 1)  
 WYFR ( 1) VOA(PHL) ( 1)  
 URS (OHR RADAR) ( 1) AFRTS-DELANO ( 1)

FORT LAUDERDALE, FLORIDA USA

NUMBER OF SCHEDULED OBSERVATIONS 274  
 NUMBER OF OBSERVATIONS TOTAL 260  
 NUMBER OF OBSERVATIONS UNHARMED 186  
 NUMBER OF OBSERVATIONS INTERFERED 74  
 NUMBER OF INTENTIONAL INTERFERENCE 63  
 NUMBER OF UNINTENTIONAL INTERFERENCE 11  
 NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 45, 6, 2, 0)	E ( 29, 29, 13, 0, 0)
EQAC( 23, 22, 4, 1, 0)	CAN( 22, 22, 3, 0, 0)
ATGC( 19, 19, 0, 0, 0)	SLV( 19, 18, 7, 0, 0)
GHA( 12, 10, 3, 1, 0)	ATN( 11, 11, 1, 0, 0)
THAC( 11, 11, 5, 0, 0)	RRW( 10, 10, 1, 0, 0)
DDRC( 7, 6, 1, 0, 0)	POR( 7, 7, 3, 0, 0)
UAE( 7, 7, 1, 0, 0)	AUT( 6, 6, 3, 1, 0)
EGYC( 6, 6, 0, 1, 0)	S ( 6, 6, 1, 0, 0)
URGC( 5, 5, 2, 0, 0)	KOR( 4, 4, 0, 1, 0)
AUS( 3, 2, 0, 0, 0)	MLT( 3, 3, 0, 1, 0)
PRGC( 3, 2, 0, 1, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 1, 0, 0)	CHL( 2, 2, 0, 0, 0)
GRC( 2, 2, 1, 0, 0)	HTI( 2, 2, 2, 0, 0)
SUI( 2, 2, 1, 0, 0)	YUG( 2, 2, 2, 0, 0)
CHNC( 1, 1, 1, 0, 0)	FNL( 1, 1, 0, 0, 0)
I ( 1, 1, 1, 0, 0)	NOR( 1, 1, 0, 1, 0)

NUMBER OF MARKERS IDENTIFIED - 38

PB( 17) \*\* ( 9) DR( 7) NS( 5) TU( 4) GI( 3) U7( 3) VR( 3) ZM( 3) AD( 2)  
 BD( 2) TK( 2) VG( 2) 7V( 1) 8L( 1) AN( 1) BA( 1) BI( 1) BU( 1) C7( 1)  
 CG( 1) DU( 1) G3( 1) GB( 1) GR( 1) HP( 1) IG( 1) KB( 1) KD( 1) LK( 1)  
 LM( 1) MP( 1) PL( 1) RQ( 1) US( 1) WA( 1) WD( 1) WR( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 6

\*B( 4) BBC( 2)  
 DEUTSCH WELLE( 1) QRM QRN( 1)  
 RADIO MOSCOW( 1) FRTS( 1)

GRAND ISLAND, NEBRASKA USA

NUMBER OF SCHEDULED OBSERVATIONS 274  
 NUMBER OF OBSERVATIONS TOTAL 274  
 NUMBER OF OBSERVATIONS UNHARMED 253  
 NUMBER OF OBSERVATIONS INTERFERED 21

NUMBER OF INTENTIONAL INTERFERENCE 20  
NUMBER OF UNINTENTIONAL INTERFERENCE 1  
NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 52, 4, 0, 0)	E ( 29, 29, 6, 0, 0)
EQA( 23, 23, 1, 0, 0)	CAN( 22, 22, 0, 0, 0)
ATG( 19, 19, 0, 0, 0)	SLV( 19, 19, 3, 0, 0)
GHA( 12, 12, 1, 1, 0)	ATN( 11, 11, 0, 0, 0)
THA( 11, 11, 0, 0, 0)	RRW( 10, 10, 1, 0, 0)
DDR( 7, 7, 0, 0, 0)	POR( 7, 7, 0, 0, 0)
UAE( 7, 7, 0, 0, 0)	AUT( 6, 6, 0, 0, 0)
EGY( 6, 6, 0, 0, 0)	S ( 6, 6, 2, 0, 0)
URG( 5, 5, 0, 0, 0)	KOR( 4, 4, 1, 0, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 0, 0)
PRG( 3, 3, 0, 0, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 2, 1, 0, 0)
GRC( 2, 2, 0, 0, 0)	HTI( 2, 2, 0, 0, 0)
SUI( 2, 2, 0, 0, 0)	YUG( 2, 2, 0, 0, 0)
CHN( 1, 1, 0, 0, 0)	FNL( 1, 1, 0, 0, 0)
I ( 1, 1, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 13

DU( 2) FA( 2) GR( 2) PL( 2) R9( 2) VR( 2) \*( 1) 4K( 1) 77( 1) AD( 1)  
KB( 1) LK( 1) MR( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 1

\*B( 1)

KINGSVILLE, TEXAS USA

NUMBER OF SCHEDULED OBSERVATIONS 274

NUMBER OF OBSERVATIONS TOTAL 225

NUMBER OF OBSERVATIONS UNHARMED 190

NUMBER OF OBSERVATIONS INTERFERED 35

NUMBER OF INTENTIONAL INTERFERENCE 35

NUMBER OF UNINTENTIONAL INTERFERENCE 0

NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 46, 3, 0, 0)	E ( 29, 25, 8, 0, 0)
EQA( 23, 19, 6, 0, 0)	CAN( 22, 14, 0, 0, 0)
ATG( 19, 15, 0, 0, 0)	SLV( 19, 16, 6, 0, 0)
GHA( 12, 12, 3, 0, 0)	ATN( 11, 9, 1, 0, 0)
THA( 11, 7, 0, 0, 0)	RRW( 10, 9, 2, 0, 0)
DDR( 7, 4, 0, 0, 0)	POR( 7, 6, 0, 0, 0)
UAE( 7, 5, 1, 0, 0)	AUT( 6, 5, 0, 0, 0)
EGY( 6, 3, 0, 0, 0)	S ( 6, 6, 2, 0, 0)
URG( 5, 3, 0, 0, 0)	KOR( 4, 3, 1, 0, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 0, 0)
PRG( 3, 3, 0, 0, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 2, 1, 0, 0)
GRC( 2, 1, 0, 0, 0)	HTI( 2, 2, 0, 0, 0)
SUI( 2, 2, 0, 0, 0)	YUG( 2, 1, 0, 0, 0)
CHN( 1, 1, 0, 0, 0)	FNL( 1, 1, 1, 0, 0)
I ( 1, 1, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)



NUMBER OF MARKERS IDENTIFIED - 23

GR( 6) VR( 5) 66( 4) \*( 3) GI( 3) KB( 3) AN( 2) FA( 2) LK( 2) PL( 2)  
WI( 2) SL( 1) DA( 1) GM( 1) IG( 1) KD( 1) TK( 1) TU( 1) U7( 1) UD( 1)  
VG( 1) WD( 1) ZT( 1)

LAUREL, MARYLAND

NUMBER OF SCHEDULED OBSERVATIONS 274

NUMBER OF OBSERVATIONS TOTAL 186

NUMBER OF OBSERVATIONS UNHARMED 122

NUMBER OF OBSERVATIONS INTERFERED 64

NUMBER OF INTENTIONAL INTERFERENCE 37

NUMBER OF UNINTENTIONAL INTERFERENCE 27

NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 33, 2, 6, 0)	E ( 29, 22, 8, 1, 0)
EQA( 23, 18, 3, 4, 0)	CAN( 22, 12, 1, 1, 0)
ATG( 19, 11, 0, 0, 0)	SLV( 19, 14, 7, 3, 0)
GHA( 12, 8, 4, 0, 0)	ATN( 11, 8, 0, 0, 0)
THA( 11, 6, 1, 0, 0)	RRW( 10, 7, 2, 1, 0)
DDR( 7, 6, 0, 2, 0)	POR( 7, 5, 1, 0, 0)
UAE( 7, 5, 3, 1, 0)	AUT( 6, 2, 0, 0, 0)
EGY( 6, 3, 0, 1, 0)	S ( 6, 4, 1, 1, 0)
URG( 5, 4, 0, 1, 0)	KOR( 4, 2, 0, 1, 0)
AUS( 3, 2, 0, 0, 0)	MLT( 3, 2, 0, 0, 0)
PRG( 3, 2, 0, 0, 0)	B ( 2, 1, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 2, 2, 0, 0)
GRC( 2, 1, 0, 0, 0)	HTI( 2, 2, 2, 0, 0)
SUI( 2, 2, 0, 1, 0)	YUG( 2, 2, 0, 1, 0)
CHN( 1, 1, 0, 1, 0)	FNL( 1, 0, 0, 0, 0)
I ( 1, 0, 0, 0, 0)	NOR( 1, 1, 0, 1, 0)

NUMBER OF MARKERS IDENTIFIED - 30

\*( 5) GI( 4) 99( 2) IG( 2) LK( 2) NS( 2) ZM( 2) 77( 1) AN( 1) B1( 1)  
BI( 1) CB( 1) D3( 1) DA( 1) DL( 1) DR( 1) GR( 1) K7( 1) KD( 1) MP( 1)  
PB( 1) RB( 1) TR( 1) TU( 1) US( 1) VG( 1) VR( 1) WA( 1) WR( 1) ZD( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 4

\*B( 22) WRNO( 1)

VENEZUELA CARACAS( 1) SWISS RDO( 1)

LIVERMORE, CALIFORNIA USA

NUMBER OF SCHEDULED OBSERVATIONS 274

NUMBER OF OBSERVATIONS TOTAL 273

NUMBER OF OBSERVATIONS UNHARMED 152

NUMBER OF OBSERVATIONS INTERFERED 121

NUMBER OF INTENTIONAL INTERFERENCE 49

NUMBER OF UNINTENTIONAL INTERFERENCE 70

NUMBER OF BOTH 2

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 49, 49, 12, 5, 0) E ( 25, 25, 14, 1, 0)

EQA( 20, 20, 1, 3, 0)	ATG( 19, 19, 0, 0, 0)
CAN( 17, 17, 0, 2, 0)	GHA( 12, 12, 2, 4, 1)
SLV( 11, 11, 3, 0, 0)	ATN( 10, 10, 0, 1, 0)
RRW( 9, 9, 0, 4, 0)	UAE( 7, 7, 0, 4, 0)
AUT( 6, 6, 0, 5, 0)	S ( 6, 6, 0, 1, 0)
POR( 5, 5, 0, 4, 0)	DDR( 4, 4, 0, 1, 0)
EGY( 4, 4, 1, 1, 0)	KOR( 4, 4, 1, 3, 0)
THA( 4, 4, 0, 1, 0)	URG( 4, 4, 0, 3, 0)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 1, 0)
PRG( 3, 3, 2, 1, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 0, 1, 0)	CHL( 2, 2, 1, 0, 0)
HTI( 2, 2, 1, 0, 1)	CHN( 1, 1, 0, 0, 0)
FNL( 1, 1, 0, 1, 0)	GRC( 1, 1, 0, 1, 0)
I ( 1, 1, 0, 0, 0)	NOR( 1, 1, 0, 1, 0)
SUI( 1, 1, 0, 0, 0)	YUG( 1, 1, 1, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 14

GM( 11) \*( 9) GR( 9) FA( 7) IG( 7) KB( 6) ZT( 3) 66( 2) VR( 2) XR( 2)  
 LK( 1) MU( 1) PB( 1) RV( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 6

\*B( 63) WYFR( 2)  
 CUBAN( 1) RA AUS( 1)  
 HETRODYNE( 1) CUBA( 1)

POWDER SPRINGS, GEORGIA USA

NUMBER OF SCHEDULED OBSERVATIONS 274

NUMBER OF OBSERVATIONS TOTAL 263

NUMBER OF OBSERVATIONS UNHARMED 178

NUMBER OF OBSERVATIONS INTERFERED 85

NUMBER OF INTENTIONAL INTERFERENCE 60

NUMBER OF UNINTENTIONAL INTERFERENCE 20

NUMBER OF BOTH 5

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 48, 7, 2, 0)	E ( 29, 27, 11, 2, 0)
EQA( 23, 22, 4, 2, 2)	CAN( 22, 21, 5, 1, 1)
ATG( 19, 19, 4, 0, 0)	SLV( 19, 19, 7, 0, 1)
GHA( 12, 12, 4, 0, 0)	ATN( 11, 11, 0, 2, 0)
THA( 11, 11, 3, 1, 0)	RRW( 10, 10, 4, 0, 0)
DDR( 7, 6, 0, 1, 0)	POR( 7, 7, 1, 0, 0)
UAE( 7, 7, 3, 1, 0)	AUT( 6, 6, 2, 2, 0)
EGY( 6, 6, 2, 1, 0)	S ( 6, 6, 1, 0, 0)
URG( 5, 4, 1, 0, 0)	KOR( 4, 4, 0, 1, 1)
AUS( 3, 3, 0, 0, 0)	MLT( 3, 3, 0, 1, 0)
PRG( 3, 3, 2, 0, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 0, 0, 0)	CHL( 2, 2, 0, 1, 0)
GRC( 2, 2, 0, 1, 0)	HTI( 2, 2, 1, 0, 0)
SUI( 2, 2, 0, 1, 0)	YUG( 2, 2, 0, 0, 0)
CHN( 1, 1, 0, 0, 0)	FNL( 1, 0, 0, 0, 0)
I ( 1, 1, 0, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 41

\*( 16) PB( 8) TU( 7) ZM( 6) KB( 5) CL( 3) FU( 3) GI( 3) NS( 3) 77( 2)  
 B1( 2) LM( 2) VR( 2) \*( 1) IG( 1) 7K( 1) A5( 1) AN( 1) AU( 1) BC( 1)  
 B1( 1) D3( 1) DB( 1) DR( 1) FA( 1) G3( 1) GL( 1) GR( 1) K7( 1) KD( 1)

L4( 1) PG( 1) RB( 1) RQ( 1) RV( 1) U7( 1) US( 1) W7( 1) WA( 1) WI( 1)  
WP( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 1  
\*B( 24)

SABANA SECA, PUERTO RICO

NUMBER OF SCHEDULED OBSERVATIONS 274  
NUMBER OF OBSERVATIONS TOTAL 233  
NUMBER OF OBSERVATIONS UNHARMED 101  
NUMBER OF OBSERVATIONS INTERFERED 132  
NUMBER OF INTENTIONAL INTERFERENCE 130  
NUMBER OF UNINTENTIONAL INTERFERENCE 2  
NUMBER OF BOTH 0

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 42, 13, 0, 0)	E ( 29, 28, 22, 0, 0)
EQA( 23, 23, 15, 0, 0)	CAN( 22, 17, 11, 0, 0)
ATG( 19, 13, 10, 0, 0)	SLV( 19, 19, 10, 0, 0)
GHA( 12, 7, 3, 0, 0)	ATN( 11, 7, 3, 0, 0)
THA( 11, 11, 8, 0, 0)	RRW( 10, 9, 5, 0, 0)
DDR( 7, 7, 5, 0, 0)	POR( 7, 7, 5, 0, 0)
UAE( 7, 6, 3, 0, 0)	AUT( 6, 3, 2, 0, 0)
EGY( 6, 6, 3, 0, 0)	S ( 6, 5, 2, 0, 0)
URG( 5, 5, 1, 0, 0)	KOR( 4, 1, 0, 0, 0)
AUS( 3, 1, 0, 0, 0)	MLT( 3, 2, 0, 0, 0)
PRG( 3, 2, 2, 0, 0)	B ( 2, 2, 0, 0, 0)
BEL( 2, 2, 2, 0, 0)	CHL( 2, 2, 2, 0, 0)
GRC( 2, 2, 1, 0, 0)	HTI( 2, 1, 0, 0, 0)
SUI( 2, 2, 1, 0, 0)	YUG( 2, 2, 2, 0, 0)
CHN( 1, 1, 1, 0, 0)	FNL( 1, 1, 1, 0, 0)
I ( 1, 1, 1, 0, 0)	NOR( 1, 1, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 42

TU( 30) \*( 15) VR( 13) MU( 8) PB( 7) DR( 6) WM( 6) BU( 5) GI( 5) TK( 5)  
DL( 4) NS( 4) AN( 3) VG( 3) WA( 3) BQ( 2) K7( 2) KD( 2) LG( 2) PL( 2)  
VN( 2) 4F( 1) 77( 1) 7K( 1) 99( 1) B1( 1) BD( 1) BI( 1) CB( 1) DU( 1)  
L4( 1) LM( 1) MF( 1) PA( 1) RQ( 1) RV( 1) S5( 1) SU( 1) U7( 1) WD( 1)  
WI( 1) WR( 1)

HONOLULU, HAWAII USA

NUMBER OF SCHEDULED OBSERVATIONS 274  
NUMBER OF OBSERVATIONS TOTAL 123  
NUMBER OF OBSERVATIONS UNHARMED 34  
NUMBER OF OBSERVATIONS INTERFERED 89  
NUMBER OF INTENTIONAL INTERFERENCE 36  
NUMBER OF UNINTENTIONAL INTERFERENCE 52  
NUMBER OF BOTH 1

BROADCAST ADMINISTRATIONS MONITORED:

MEX( 52, 18, 9, 7, 0)	E ( 29, 13, 6, 4, 0)
EQA( 23, 12, 2, 5, 0)	CAN( 22, 12, 0, 0, 0)

ATG( 19, 3, 0, 2, 0)	SLV( 19, 12, 5, 5, 1)
GHA( 12, 7, 4, 1, 0)	ATN( 11, 6, 0, 2, 0)
THA( 11, 5, 2, 3, 0)	RRW( 10, 5, 0, 5, 0)
DDR( 7, 2, 0, 2, 0)	POR( 7, 2, 0, 2, 0)
UAE( 7, 3, 1, 2, 0)	AUT( 6, 2, 0, 2, 0)
EGY( 6, 4, 0, 4, 0)	S ( 6, 2, 1, 0, 0)
URG( 5, 4, 0, 3, 0)	KOR( 4, 3, 2, 1, 0)
AUS( 3, 2, 0, 0, 0)	MLT( 3, 1, 0, 1, 0)
PRG( 3, 1, 1, 0, 0)	B ( 2, 1, 0, 1, 0)
BEL( 2, 0, 0, 0, 0)	CHL( 2, 0, 0, 0, 0)
GRC( 2, 0, 0, 0, 0)	HTI( 2, 2, 2, 0, 0)
SUI( 2, 0, 0, 0, 0)	YUG( 2, 1, 1, 0, 0)
CHN( 1, 0, 0, 0, 0)	FNL( 1, 0, 0, 0, 0)
I ( 1, 0, 0, 0, 0)	NOR( 1, 0, 0, 0, 0)

NUMBER OF MARKERS IDENTIFIED - 18

GR( 8) IG( 7) KB( 7) GM( 6) ZT( 6) FA( 4) \*( 3) LK( 3) HD( 2) RD( 2)  
 BA( 1) DN( 1) LR( 1) TK( 1) UQ( 1) UR( 1) WR( 1) XR( 1)

NUMBER OF OTHER BROADCASTERS IDENTIFIED - 7

\*B( 42) VOA( 3)  
 RA MOSCOW( 2) BEING( 1)  
 BBC( 1) NHK TOKYO( 1)

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