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Monitoring of Harmful Interference to the HF Broadcasting Service: II. Results of the January 1986 Coordinated Monitoring Period

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MONITORING OF HARMFUL INTERFERENCE TO THE HF BROADCASTING SERVICE: II. RESULTS OF THE JANUARY 1986 COORDINATED MONITORING PERIOD

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This is the second 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 January 1986 monitoring program conducted by the International Frequency Registration Board, the report describes procedures used to analyze the data, amplifies studies of earlier monitoring programs, identifies frequently observed emitters of harmful interference, and notes the extent of such interference to programs of leading international broadcast organizations.

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

1. INTRODUCTION

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 International Frequency Registration Board, with the cooperation of administrations, "to organize monitoring programs in the bands allocated to the high frequency broadcasting service with a view to identifying stations causing harmful interference," and to report the results to the Second Session of WARC-HFBC in 1987 (ITU, 1984). Four such coordinated monitoring programs have been organized under IFRB auspices, with the cooperation of the United States and other administrations. The IFRB has distributed the results of the first three monitoring programs to administrations represented in the International Telecommunication Union in Circular Letters 609 (IFRB, 1985a), 630 (IFRB, 1985b), and 657 (IFRB, 1986). In addition, the results of the first two programs, which were conducted on October 1984 and March/April 1985, were analyzed, along with other monitoring data collected by administrations, in the first NTIA report in this series (Sowers, et al, 1985).

The October 1984 analysis comprised more than 20,000 observations of harmful interference, and over 15,000 observations were used for the

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March/April 1985 analysis. The observations were used to determine the location of the transmitters causing the harmful interference and were also used to develop statistics of the occurrence of harmful interference to the HF broadcasting service. Well over 60 separate locations were isolated during both monitoring periods that were identified as sources of harmful interference. That this could be accomplished was due in large measure to the cooperative efforts of personnel located at HF monitoring sites in Canada, Israel, Federal Republic of Germany, Japan, Netherlands, Norway, Republic of Korea, United Kingdom, and the United States. The data, once obtained at the monitoring sites, were forwarded to the Institute for Telecommunication Sciences for subsequent analysis and interpretation.

In this report, we describe the results of HF monitoring programs that have been undertaken between October 1985 and January 1986. The programs include a major IFRB-coordinated monitoring program conducted in January 1986. The data obtained during this period form the core of the observations used in the analysis reported upon here. Data collected during October 1985 and November 1985 relating to harmful interference, were also used in the current investigations. The observations made during October and November 1985 were conducted for five consecutive days in each month, and the intent was to determine the number of emitters that could be identified as causing interference to a specific international broadcaster. The October 1985 and November 1985 monitoring programs were not coordinated by the IFRB but by the Institute for Telecommunication Sciences. However, many of the monitoring sites that provide data during the IFRB programs cooperated during the October and November 1985 exercises.

In the next section, the types of observations that have been obtained and the locations of the monitoring sites performing the observations are given. During the January 1986 monitoring program, monitoring sites in Australia, Brazil, and Italy joined the sites listed above in the cooperative monitoring effort. 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 of specific emitters of harmful interference are provided and comparisons with locations obtained from the October 1984 and March/April 1985 monitoring periods are made. Also in Section 3, we provide a discussion of

the statistics of occurrence of interference to specific broadcasters and broadcast languages.

Section 4 provides the overall conclusions derived from this study.

2. DATA COLLECTION AND ANALYSIS

The third IFRB monitoring program to collect data on harmful interference to the HF broadcasting service was conducted between January 6 and Janary 26, 1986 (IFRB, 1985c). As was the case in the previous two IFRB monitoring programs, a specific frequency schedule was adopted during the exercises 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 specifically 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 FCC stations located in the continental United States, Puerto Rico, Hawaii, and Alaska. The position of the U.S. and Canadian stations are illustrated in Figure 1. Participating administrations in Europe include Federal Republic of Germany, Netherlands, Norway, Italy, and United Kingdom. The locations of the stations within these countries in Europe are shown in Figure 2. A list of all of the participating stations and their locations is given in Table 1.

The monitoring stations have gathered information such as the bandwidth, signal strength, and bearing of the signals causing harmful interference. Among the stations that were able to record bearing information, two different types of direction finding systems were commonly used: Wullenweber and Adcock. The Wullenweber direction finding system, used by the FCC, employs an antenna array consisting of 60 monopoles spaced at 6-degree increments on a circle of radius 140 m. Each of the elements in the array is sampled by a spinning goniometer. The direction of the signal is determined by those elements in the array that record the maximum signal strength. The Adcock direction finding system is used in several of the monitoring stations in Europe. A typical Adcock direction-finding system employs two monopole antennas that rotate freely while averaging the signal over a specified period

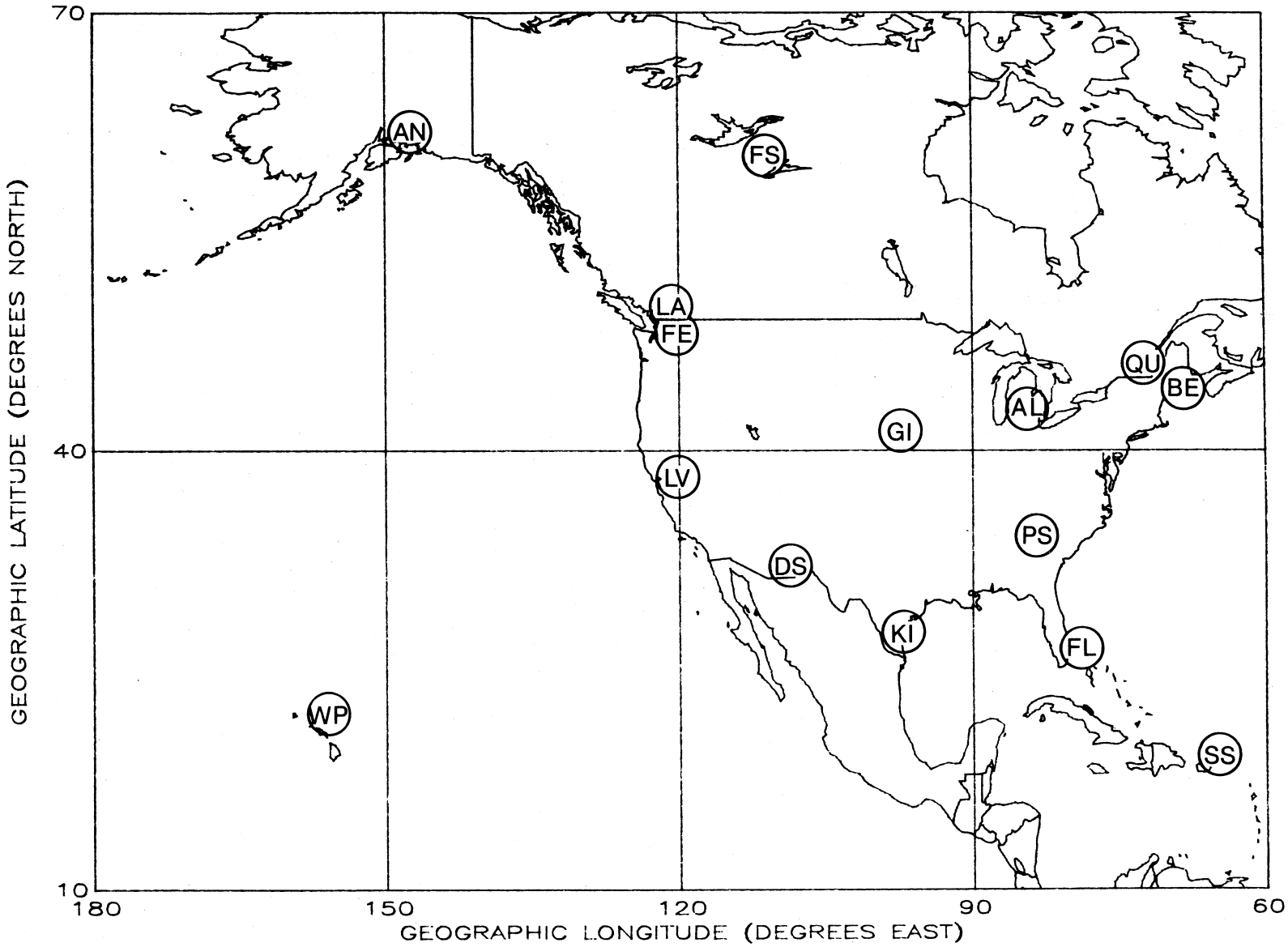

Figure 1. Map of cooperating monitoring stations in the United States and Canada.

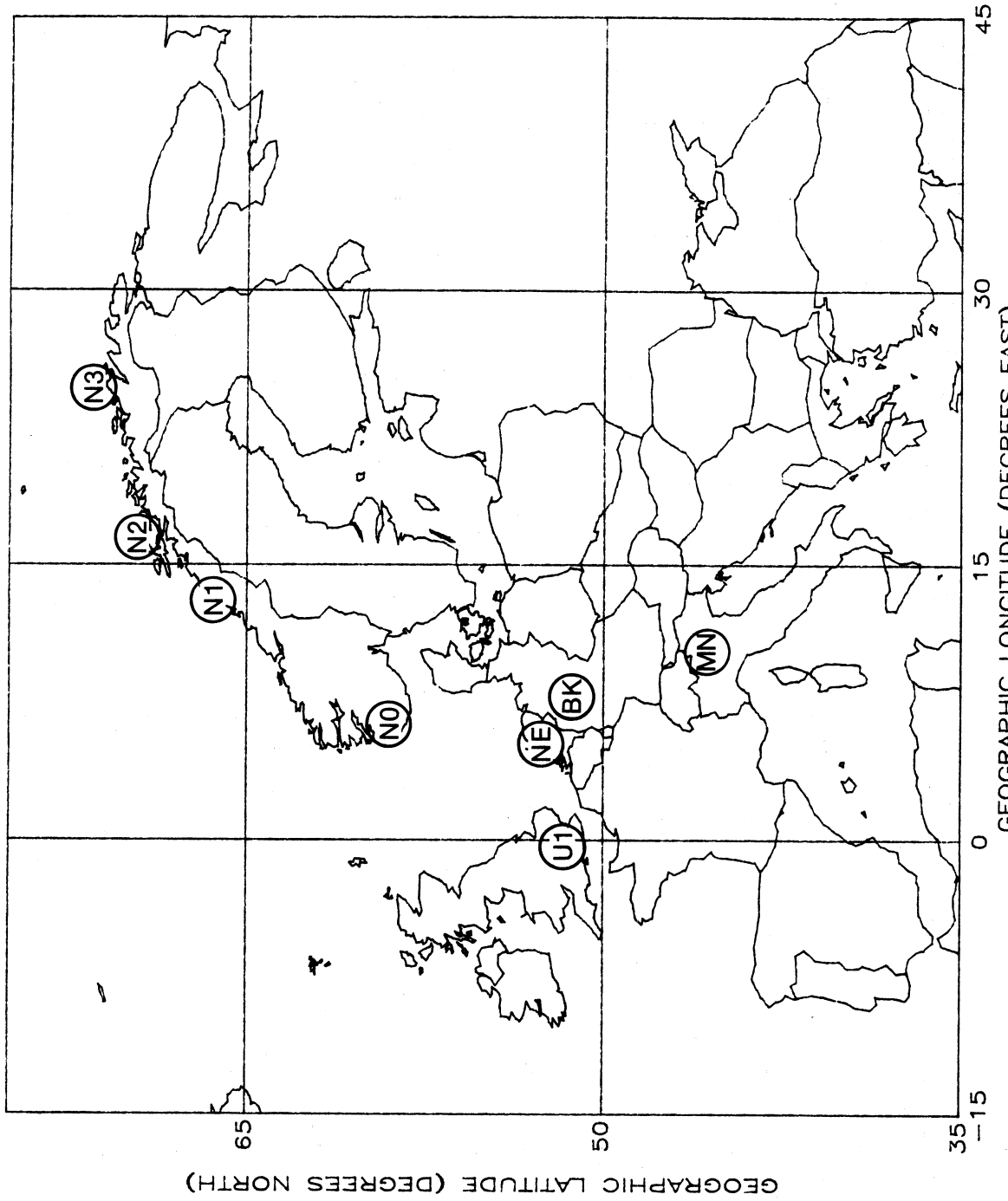

Figure 2. Map of cooperating monitoring stations in Europe.

Table 1. Station Locations and Antenna Types

STATION	CODE	LATITUDE	LONGITUDE	ANTENNA TYPE
ANCORAGE, 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)
WAIPAHU, 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 REP. OF GERMANY	BK	51°06'00"N	07°16'00"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

Table 1. Station Locations and Antenna Types (continued)

STATION	CODE	LATITUDE	LONGITUDE	ANTENNA TYPE
NORWAY, STATION 3	N3	71°04'34"N	24°06'58"E	ADCOCK ANTENNA
CROWSELY 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
BASSENDEAN, AUSTRALIA	BS	31°53'00"S	115°26'00"E	BANDWIDTH MEASUREMENTS ONLY
CAPALABA, AUSTRALIA	CP	27°31'00"S	153°12'00"E	BANDWIDTH MEASUREMENTS 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

of time. Direction-finding systems such as the Wullenweber and Adcock systems are able to gather bearings to within 1 or 2 degrees of accuracy (Gething, 1978). Table 1 lists the type of equipment currently in use at each participating monitoring site.

In order to obtain the maximum use from the collection of data, it was necessary to further coordinate the monitoring program with a schedule for all of the participants to follow. In October 1984 and March/April 1985 the schedule was devised so that all of the monitoring sites would record observations in given frequency bands for a period of one half-hour. In addition to this, the March schedule included a single frequency that was specified for observation for the first 5 minutes of monitoring during each half-hour time block. The January schedule did not deviate greatly from this initial philosophy except for the inclusion of possible markers that were expected to be observed on certain broadcasts. The marker is a two-character Morse code identifier that is characteristic of the jamming signals emanating from the Soviet Union and Eastern bloc countries directed against Western broadcasters.

The markers that were associated with specific broadcasts were determined from the data collected during the October 1985 and November 1985 monitoring exercises. These two exercises were implemented as a result of decisions taken at a monitoring meeting held in Boulder, Colorado, during July 1985 and involved the cooperation of several administrations throughout Europe and Asia. It was decided at the July 1985 meeting to conduct two monitoring programs; they took place on October 7-11 and November 11-15, 1985. Each lasted for 5 days during which time the sites followed the same schedule for each of the 5 days of monitoring. A single schedule was utilized for both of the monitoring periods except for a few updates due to seasonal changes in broadcasting operations. The schedule was designed so that the monitor sites could collect data on a particular frequency for the first 10 minutes of each half-hour monitor period, then they would monitor the frequency band containing that frequency for the remaining 20 minutes. The single fequency was chosen from a list of probable jammed frequencies compiled by ITS. The exact frequency bands and monitoring schedule used in the October and November 1985 campaigns appear in Table 2.

The purpose of the October and November 1985 monitoring periods was to gather information on the marker, or set of markers that are observed to jam

Table 2. October 7-11 and November 11-15, 1985, Monitoring Schedule

	TIME PERIOD	FREQ	BROADCASTER/LANGUAGE		BAND MONITORED LAST 20 MINUTES
1	0000-0029	6105*	RFE	CZECHOSLOVAKIAN	6075- 6200
2	0030-0059	7220	RL	RUSSIAN	7205- 7300
3	0100-0129	5955	RL	RUSSIAN	5950- 6070
4	0130-0159	7105	VOA	PASHTO	7100- 7200
5	0200-0229	6170	RL	RUSSIAN	6075- 6200
6	0230-0259	6025	VOA	RUSSIAN	5950- 6070
7	0300-0329	7275	DW	PASHTO	7205- 7300
8	0330-0359	9009	IBA	RUSSIAN	9605- 9700
9	0400-0429	9650	DW	RUSSIAN	9605- 9700
10	0430-0459	6130	DW	RUSSIAN	6075- 6200
11	0500-0529	6140	BBC	POLISH	6075- 6200
12	0530-0559	7130	VOA	POLISH	7100- 7200
13	0600-0629	9555	RFE	BULGARIAN	9500- 9600
14	0630-0659	9725	RFE	CZECHOSLOVAKIAN	9705- 9800
15	0700-0729	15145	RFE	POLISH	15100- 15300
16	0730-0759	15340	RL	RUSSIAN	15305- 15450
17	0800-0829	11905	DW	PASHTO	11845- 11975
18	0830-0859	15185	DW	PASHTO	15100- 15300
19	0900-0929	17740	VOA	RUSSIAN	17700- 17800
20	0930-0959	11970	RL	RUSSIAN	11845- 11975
21	1000-1029	15330	DW	BULGARIAN	15305- 15450
22	1030-1059	17895	RL	RUSSIAN	17805- 17900
23	1100-1129	6020	DW	CZECHOSLOVAKIAN	5950- 6070
24	1130-1159	21665	RFE	POLISH	21655- 21850
25	1200-1229	21590	DW	RUSSIAN	21450- 21650
26	1230-1259	17855	VOA	RUSSIAN	17805- 17900
27	1300-1329	11780	BBC	RUSSIAN	11700- 11840
28	1330-1359	15280	VOA	RUSSIAN	15100- 15300
29	1400-1429	15485	IBA	RUSSIAN	15305- 15450
30	1430-1459	17710	IBA	RUSSIAN	17700- 17800
31	1500-1529	9660	BBC	POLISH	9500- 9600
32	1530-1559	11960	VOA	ESTONIAN	11845- 11975
33	1600-1629	9615	DW	RUSSIAN	9605- 9700
34	1630-1659	11780	BBC	RUSSIAN	11700- 11840
35	1700-1729	11885	RL	UKRANINIAN	11845- 11975
36	1730-1759	9750	BBC	POLISH	9705- 9800
37	1800-1829	9505	RL	AZERBAIJANI	9500- 9600
38	1830-1859	7120	BBC	RUSSIAN	7100- 7200
39	1900-1929	11835	VOA	AZERBAIJANI	11700- 11840
40	1930-1959	9725	RFE	CZECHOSLOVAKIAN	9705- 9800
41	2000-2029	7280	VOA	GEORGIAN	7205- 7300
42	2030-2059	9615	DW	CZECHOSLOVAKIAN	9605- 9700
43	2100-2129	6070	BBC	RUSSIAN	5950- 6070
44	2130-2159	6125	BBC	POLISH	6075- 6200
45	2200-2229	7285	DW	BULGARIAN	7205- 7300
46	2230-2259	6010	DW	RUSSIAN	5950- 6070
47	2300-2329	9435	IBA	HEBREW	9500- 9600
48	2330-2359	7190+	RFE	POLISH	7100- 7200

* Frequency was 6135 in November
\+ Frequency was 7145 in November

specific broadcasts. This set of markers was used to predict the set of markers that could be expected to jam specific frequencies during the January 1986 IFRB monitoring campaign.

Table 3 is a copy of the schedule followed during the January 1986 monitoring period. Specific frequency bands allocated to the HF broadcasting service were assigned by the IFRB to each of the 3 weeks of monitoring. 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 results of the two mini-monitoring periods are shown in the list of suggested markers along side specific frequencies in Table 3.

During the January monitoring period the collection of data was coordinated by the Federal Communications Commission. The FCC stations are separated into two nets. One net, consisting of stations that are located on the West Coast of the United States and in Hawaii, recorded information on emitters primarily located in the eastern region of the Soviet Union and in China. The FCC stations on the East Coast of the U.S. and the Sabena Seca station (located in Puerto Rico) coordinated to locate emitters in Europe and Western Asia. During the January monitoring period, the FCC maintained an on-line system where the members of a net could alert each other of incoming jamming signals. At the time of an alert, all of the stations in a net would monitor the alerted frequency and commence to gather data on the specified marker. Also at this time, the station instigating the alert would make an attempt to measure the exact center frequency of the jamming signal. This communication structure enabled a high degree of consistency in the data set and eased the task of locating the signals to be monitored. The FCC collected 4566 observations in January.

Stations outside the United States recorded many instances of harmful interference emanating from the Soviet Union and Eastern bloc countries during the January monitoring period. Following the schedule, 6932 observations of harmful interference were recorded at the Bockhaken station in West Germany. A total of 5246 observations were collected from four stations in Norway. The Norwegian stations range in latitude from 58°N to 71°N and in longitude from 5°E to 24°E and provide an excellent angle to record data from the Soviet Union and Eastern bloc countries. The Netherlands station recorded 3424

TABLE 3. IFRB Monitoring Schedule for January 1986

Frequency identified is monitored first 10 minutes. Remaining time (11-29) monitoring should be in band defined by frequency as follows:

5950-6070 6075-6200 11700-11840 11845-11975

Out of band frequencies are identified with 'xxxx'. Monitoring during (11-29) should be done in nearest frequency band above.

	Time	MON Jan 6	TUE Jan 7	WED Jan 8	THUR Jan 9	FRI Jan10	SAT Jan11	SUN Jan12	Predicted MARKERS for frequencies with *
1	0000-0029	6050	5955	6135*	6115	6135*	6015	6135*	B1
2	0030-0059	11770	6135*	11855	5985	11945	6170	11885	B1
3	0100-0129	5955*	11935	5955*	11970	5955*	11915	5955*	MF
4	0130-0159	11875	6115	11875	6015	11935	11780	6170*	TU
5	0200-0229	6170*	11915	6170*	11850	11925	6170*	11915	TU
6	0230-0259	5955	6025*	6125	6025*	6115	6025*	6170	PB
7	0300-0329	6115	6125	6135	'5880'	6160	6170	6025	
8	0330-0359	6150	6025	6090	5955	5985	6160	6170	
9	0400-0429	5955	6070	6160	6150	6130	6170	6115	PB TU
10	0430-0459	6105	6130*	5985	6130*	6160	6130*	6115	PB TU
11	0500-0529	6140*	5955	6140*	6160	6140*	6115	5985	1D 1G BG
12	0530-0559	6115	6070	6190	6105	6160	5970	6170	
13	0600-0629	11815	6150	11920	5955	11855	5985	11970	
14	0630-0659	6160	11725	5955	11970	5985	11815	5970	
15	0700-0729	11855	11815	5985	6105	11895	6170	11970	
16	0730-0759	6105	11895	5970	11970	5985	11855	6170	
17	0800-0829	11905*	5970	11905*	6105	11905*	5985	11905*	MU TU VL
18	0830-0859	11945	6105	11965	11905*	5985	5970	11875	MU TU VL
19	0900-0929	11970*	11895	11855	11885	11970*	11725	11930	K7 MU TU
20	0930-0959	11895	11970*	11930	11970*	11965	11970*	11875	K7 MU TU
21	1000-1029	6087	6087	6087	6087	6087	6087	6087	
22	1030-1059	11850	6105	11930	5970	5985	11885	11930	
23	1100-1129	6020*	11725	6020*	11875	6020*	11970	11875	S5 D3 Z3
24	1130-1159	5970	6020*	11875	6065	11800	7190	11895	S5 D3 Z3
25	1200-1229	11705	5970	11865	5985	11885	6105	11800	
26	1230-1259	5970	11705	11725	5985	11970	6105	11970	
27	1300-1329	11780*	5970	11780*	6105	11780*	5985	11780*	TU WI VG
28	1330-1359	5970	11865	5985	11970	6105	11725	11895	
29	1400-1429	11835	11875	6105	11760	5970	11895	5985	
30	1430-1459	11760	5970	11845	5985	11885	6115	11970	
31	1500-1529	5970	11700	5985	11710	6105	11885	6095	
32	1530-1559	11960*	6105	11960*	5985	11960*	6115	11960*	LF
33	1600-1629	5985	11970	6085	11740	6160	11780*	6105	SM TU PB
34	1630-1659	11780*	6085	11780*	6060	11780*	5970	11780*	SM TU PB
35	1700-1729	6085	11885*	6160	11885*	6105	11885*	5985	FU TR US
36	1730-1759	11780	11700	11865	11805	11875	11725	11925	
37	1800-1829	11865	'11655'	11845	11885	11805	11895	11825	
38	1830-1859	6010	6085	6095	5970	5955	6135	5955	
39	1900-1929	11750*	6070	11750*	6140	11750*	6105	11750*	4F 7K
40	1930-1959	11895	11845	11935	'11655'	11885	11710	11725	
41	2000-2029	11845	11710	11770	11825	11970	11855	11935	
42	2030-2059	11770	11750	11845	11925	11725	11825	11895	
43	2100-2129	6070*	11750	6070*	11960	6070*	11845	6070*	PB WI
44	2130-2159	6135	6125*	5995	6125*	6085	6125*	6160	MF KD DR 1D
45	2200-2229	6105	6010	6060	6095	5970	6170	6135	
46	2230-2259	6010*	6060	6010*	5955	6010*	5970	6010*	PB WA
47	2300-2329	6050	'5880'	6135	5995	6150	5985	6095	
48	2330-2359	6140	6170	6115	6150	5955	6105	6085	

TABLE 3. IFRB Monitoring Schedule for January 1986 (Continued)

Frequency identified is monitored first 10 minutes. Remaining time (11-29) monitoring should be in band defined by frequency as follows:

7100-7205 7205-7300 15100-15300 15305-15450 21450-21650 21655-21850

Out of band frequencies are identified with 'xxxx'. Monitoring during (11-29) should be done in nearest frequency band above.

	Time	MON Jan13	TUE Jan14	WED Jan15	THUR Jan16	FRI Jan17	SAT Jan18	SUN Jan19	Predicted MARKERS for frequencies with *
1	0000-0029	7105	7115	7125	7155	7295	7200	7245	
2	0030-0059	7220*	7125	7220*	7165	7220*	7180	7220*	TK MU
3	0100-0129	7145	7105*	7245	7105*	7295	7105*	7165	VL FR
4	0130-0159	7155	7180	7245	7255	7295	7190	7165	
5	0200-0229	7255	7220	7145	7155	7105	7180	7270	
6	0230-0259	7105	7180	7155	7295	7255	7245	7190	
7	0300-0329	7220	7275*	7270	7275*	'7410'	7275*	7120	FR
8	0330-0359	7270	7220	7155	'7410'	7105	7295	7145	
9	0400-0429	7180	7105	7155	7285	'7410'	7190	7245	
10	0430-0459	7105	'7410'	7115	7155	7285	7180	7270	
11	0500-0529	7260	15115	7130*	15340	7245	7245	7165	1G 8L
12	0530-0559	7130*	15340	7130*	15115	7130*	15370	7130*	1G 8L
13	0600-0629	15115	7260	15370	7130*	15340	7180	7255	1G 8L
14	0630-0659	7190	15215	7130*	15145	7130*	15370	7180	1G 8L
15	0700-0729	15145*	7220	15145*	7190	15145*	7165	7255	4F 4N 7K
16	0730-0759	7190	15340*	7220	15340*	7190	15340*	7165	MU TU
17	0800-0829	15355	7190	15290	7165	15340*	7220	15445	MU TU
18	0830-0859	21735	15185*	21510	15185*	21665	15185*	21720	WA
19	0900-0929	15255	21720	15410	21665	15325	21510	15430	
20	0930-0959	21720	15430	21665	15410	21510	15145	21745	
21	1000-1029	15330*	21530	15330*	21720	15330*	21735	15330*	K7 A5 R6
22	1030-1059	21735	15330*	15325	15430	21455	15255	21720	K7 A5 R6
23	1100-1129	15370	21745	15145	21665*	15380	21720	15445	4F 7K
24	1130-1159	21665*	7130	21665*	7220	21665*	7115	7190	4F 7K
25	1200-1229	7190	21590*	7220	21590*	7115	21590*	7220	AD
26	1230-1259	15120	21665	15340	21735	15255	21500	15235	
27	1300-1329	21520	15270	21630	15280*	21665	15445	21745	PB NS LK
28	1330-1359	15280*	21500	15280*	21510	15280*	21530	15280*	PB NS LK
29	1400-1429	21625	'15485'*	21745	'15485'*	21665	'15485'*	21720	PB WI
30	1430-1459	15335	21745	'15585'	21665	15415	15340	21720	
31	1500-1529	21530	'15485'	21625	15390	21735	15225	21720	
32	1530-1559	15235	7210	15130	7220	15370	7190	15195	
33	1600-1629	7190	15115	7255	15355	7245	15235	7220	
34	1630-1659	7120	15415	7245	15380	7295	15255	7190	
35	1700-1729	7215	7190	15245	7255	7215	7170	15255	
36	1730-1759	7115	'15084'	7120	15290	7170	'15084'	7255	
37	1800-1829	15380	7155	15170	7120	15115	7270	15215	
38	1830-1859	7120*	15145	7120*	15115	7120*	15170	7120*	GR ZT FU
39	1900-1929	7145	7285	'7410'	7230	7270	7220	7255	
40	1930-1959	'7410'	7120	7170	7245	7115	7200	7155	
41	2000-2029	7215	7230	7215	7270	7280	7215	7280	
42	2030-2059	7155	7285	7230	7220	7140	7295	7165	
43	2100-2129	7285	'7410'	7120	7170	7245	7155	7105	
44	2130-2159	7245	7145	7165	'7410'	7105	7285	7200	
45	2200-2229	7285	7130	7285	7270	7285	7295	7285	
46	2230-2259	7145	7270	7255	7170	7130	7165	7245	
47	2300-2329	7115	7165	7280	'7410'	7295	7265	7220	
48	2330-2359	7145*	7125	7145*	7190	7145*	7280	7145*	1G 4F BG

TABLE 3. IFRB Monitoring Schedule for January 1986 (Continued)

Frequency identified is monitored first 10 minutes. Remaining time (11-29) monitoring should be in band defined by frequency as follows:

9500-9600 9605-9700 9705-9800 17700-17800 17805-17900 25600-26100

Out of band frequencies are identified with 'xxxx'. Monitoring during (11-29) should be done in nearest frequency band above.

	Time	MON Jan20	TUE Jan21	WED Jan22	THUR Jan23	FRI Jan24	SAT Jan25	SUN Jan26	Predicted MARKERS for frequencies with *
1	0000-0029	9595	9505	9615	9660	9750	9555	9635	
2	0030-0059	9505	9615	9660	9750	9555	9680	9750	
3	0100-0129	9635	9555	9725	9700	9625	9520	9505	
4	0130-0159	9505	9660	9625	9635	9750	9680	9725	
5	0200-0229	9505	9750	9770	9540	9760	9660	9700	
6	0230-0259	9725	9760	9540	9505	9555	9770	9660	
7	0300-0329	'9009'	9660	9690	9520	9530	9760	9650	
8	0330-0359	9750	'9009'	'9435'	'9009'	9505	'9009'	9555	
9	0400-0429	9650*	9505	9650*	9680	9650*	9690	9650*	MU ZT
10	0430-0459	9540	9555	9505	'9435'	9520	9705	9660	
11	0500-0529	9680	9760	9625	9695	9650	9725	9660	
12	0530-0559	9660	17760	9650	17760	9705	9555*	9520	
13	0600-0629	9555*	9650	9585	17895	9555*	9585	9555*	K7 L4
14	0630-0659	17760	9725*	17735	9725*	17750	9725*	9650	AG MF AS
15	0700-0729	9595	17750	9520	17895	9705	17760	9695	
16	0730-0759	9595	9705	17835	9520	17735	9725	17805	
17	0800-0829	9725	17825	9565	17865	9675	17750	9520	
18	0830-0859	17735	17740	9520	9675	9565	9725	9705	
19	0900-0929	17740*	9725	17740*	9675	17740*	9705	9520	CG
20	0930-0959	9705	9675	9675	17805	9725	9520	9675	
21	1000-1029	9675	9725	9705	9675	9705	9725	9520	
22	1030-1059	17895*	17750	17895*	17740	17895*	17725	17735	BQ FU SM
23	1100-1129	17805	17895*	17835	17735	17760	17750	17725	BQ FU SM
24	1130-1159	17735	17735	17805	17895	17725	17835	17750	
25	1200-1229	17855*	17895	17875	17865	17750	17805	17725	CB SM VG
26	1230-1259	17855*	9705	17855*	9520	17855*	9565	9705	CB SM VG
27	1300-1329	9705	9520	9565	9605	9725	9605	9520	
28	1330-1359	17855	17895	17865	17750	17735	17760	17835	
29	1400-1429	17780	17865	17710*	17835	17735	17855	17805	NS PB
30	1430-1459	17710*	17805	17710*	17750	17710*	17875	17710*	NS PB
31	1500-1529	9660*	9585	9660*	9585	9660*	17865	9660*	1G 4N WG
32	1530-1559	9585	9705	9585	9725	17780	9690	9520	
33	1600-1629	9615*	17855	9615*	17770	9615*	17865	9615*	WI XN
34	1630-1659	17725	9555	17805	9600	17855	9660	17895	
35	1700-1729	9625	17725	'9815'	17855	9600	17865	9690	
36	1730-1759	9750*	17855	9750*	17770	9750*	17725	9750*	4F 7K CA
37	1800-1829	9555	9505*	9635	9505*	9690	9505*	9770	U7 FU MF Z1
38	1830-1859	9770	'9815'	9635	9690	9565	9705	9715	
39	1900-1929	'9435'	9615	9770	9585	9680	9660	9725*	B1 MF
40	1930-1959	9725*	9635	9725*	'9815'	9725*	9650	9725*	B1 MF
41	2000-2029	9770	9705	9635	9725	9740	9680	9585	
42	2030-2059	9635	9615*	9575	9615*	9690	9615*	9625	U7 D3
43	2100-2129	9695	9650	9635	'9815'	9615*	9750	9555	U7 D3
44	2130-2159	'9009'	9585	9680	9705	9530	9725	9505	
45	2200-2229	9725	9660	9505	9530	9715	9645	9595	
46	2230-2259	9625	9645	9715	9695	9725	9670	9555	
47	2300-2329	'9435'	9705	'9435'	'9815'	'9435'	9645	'9435'	
48	2330-2359	9695	9595	9540	9670	9625	9750	9555	

observations of harmful interference following the monitoring schedule during the first 10 minutes of each half hour. In addition, 936 observations were recorded from a monitoring schedule arranged by Netherlands during the remainder of each time block. Italy joined the monitoring effort in January but could not provide angle-of-arrival measurements. The Italian data does, however, provide valuable information on the bandwidth of the jammer signals recorded using a spectrum analyzer at their site in Monza. The British have provided 3385 observations from the Crowsley Park and the Baldock monitoring stations. The British data also provide field strength information on the jamming signals. These field strength data may be used to estimate the power transmitted by the jammers.

Along with the monitoring activities undertaken in the United States and Europe, there has been a great deal of information gathered from other sites around the world. Monitoring stations located in Brazil were able to gather evidence of harmful interference on a few of the same markers that were collected at the European stations. Also, data from the Republic of Korea presents the results from geolocations of several markers emanating from the Khabarovsk area of USSR and from China. These locations were used to compare with the locations determined from the data set made available to ITS. Information from two stations in Australia, located in Capalaba and Bassendean, was received for the January monitoring period. Although the Australian observations do not include bearing information, the observations show many of the same markers that are on record as emanating from the Soviet and Eastern bloc contries. Observations from Canada include information from monitoring stations in Langley, British Columbia; Fort Smith, Alberta; and St. Remi, Quebec.

The January monitoring period produced more than 27,700 observations, 14,400 of which contained bearing information. A sample of the data set shown in Table 4 illustrates the type of information that has been gathered on the jamming signal. As the table indicates, the date, time, and frequency for each observation for each monitor site is recorded. Also, the two-character Morse code identifier is given for those observations when it is present. The bearing of the received signal in degrees east of north, is also listed for each observation. Once the data from the various monitors are entered into the computer, several procedures are used. The bearing information from the various stations is used to locate the position of the emitters. The data are

Table 4. Example of Monitoring Data Obtained During the January 1986 Period

Monitoring Station	Date	Time (UTC)	Frequency (kHz)	Identification	Bearing
NE	011486	1205	7220	DR	068
AL	011486	1240	7220	GI	027
AN	011486	1240	7220	GI	002
LR	011486	1240	7220	GI	022
AN	011486	1207	7220	ZT	284
DS	011486	1207	7220	ZT	321
HL	011486	1207	7220	ZT	315
FS	011486	1239	11725	VR	999
FS	011486	1242	11750	TU	999
FS	011486	1244	11760	DR	999
FS	011486	1244	11760	R6	999
FS	011486	1209	11865	SM	999
MN	011486	1212	21455	CB	999
MN	011486	1212	21455	HM	999
NO	011486	1211	21455	LT	100
NO	011486	1224	21500	BQ	108
MN	011486	1215	21500	HM	999
U2	011486	1215	21500	SM	079
MN	011486	1218	21510	AD	999
MN	011486	1218	21510	IB	999
MN	011486	1218	21510	IR	999
MN	011486	1222	21520	HM	999
U2	011486	1219	21520	LT	083
NE	011486	1205	21590	**	999
MN	011486	1201	21590	DB	999
MN	011486	1201	21590	HM	999
NO	011486	1201	21590	LT	095
U2	011486	1201	21590	LT	083
U2	011486	1233	21665	7K	077
NE	011486	1235	21665	7K	072
NO	011486	1233	21665	7K	999
MN	011486	1231	21665	7K	999
MN	011486	1243	21735	CB	999
MN	011486	1243	21735	HM	999
U2	011486	1244	21735	HM	064

also statistically processed to determine information on the types of programs that are jammed and what configurations of jammers are typically used to jam certain broadcasts.

The geolocation procedure utilizes the FFIX algorithm described by Sowers et al. (1985). It is a computerized algorithm that treats bearing observations from the data set as statistical samples whose bearing errors are normally distributed. In keeping with this philosophy, FFIX uses a set of three or more bearings to determine the best point estimate (BPE) for the location of the emitter. Along with the BPE, the computer algorithm determines a confidence region that is defined in this case as the area of containment of the emitter in 90 percent of the cases.

Individual observations within the ITS data set are matched by those occurrences that are coincident in day, hour, frequency, and jammer identifier. Only those data that satisfy these criteria are included in the FFIX program. The set of locations determined in this manner is contained in Appendix A. As can be seen in Appendix A, the error ellipses associated with the locations are usually quite large. In order to more accurately locate the emitters, the next step in the procedure is to combine those lines of data from Appendix A that have the same marker regardless of day and frequency. This is the set of data that is ultimately used by the geolocation algorithm to determine the coordinates of the BPE and the associated error ellipses of the transmitter sending out each marker, as shown in Appendix B. Once this initial determination of the location of the jammer is made, these results may be compared to the results from the other seasons of monitoring.

The information from the data base is also processed into bearing histogram form for comparison with observations made during other seasons. An example of a bearing histogram is shown in Figure 3 for observations recorded at the Baldock monitoring site on marker TU. The histogram is a bar scale representation of the actual bearings taken at one station on one marker. If the mean value and the standard deviation given in the histograms are in agreement for all three seasons as shown in Figure 3, the data sets can be combined from the three seasons to obtain a more accurate estimate of the location of the jammer. Locations determined in this manner are given in Appendix C.

An example of the location of marker 7K is illustrated in Figure 4. This marker was geolocated using the statistics from histograms of three stations

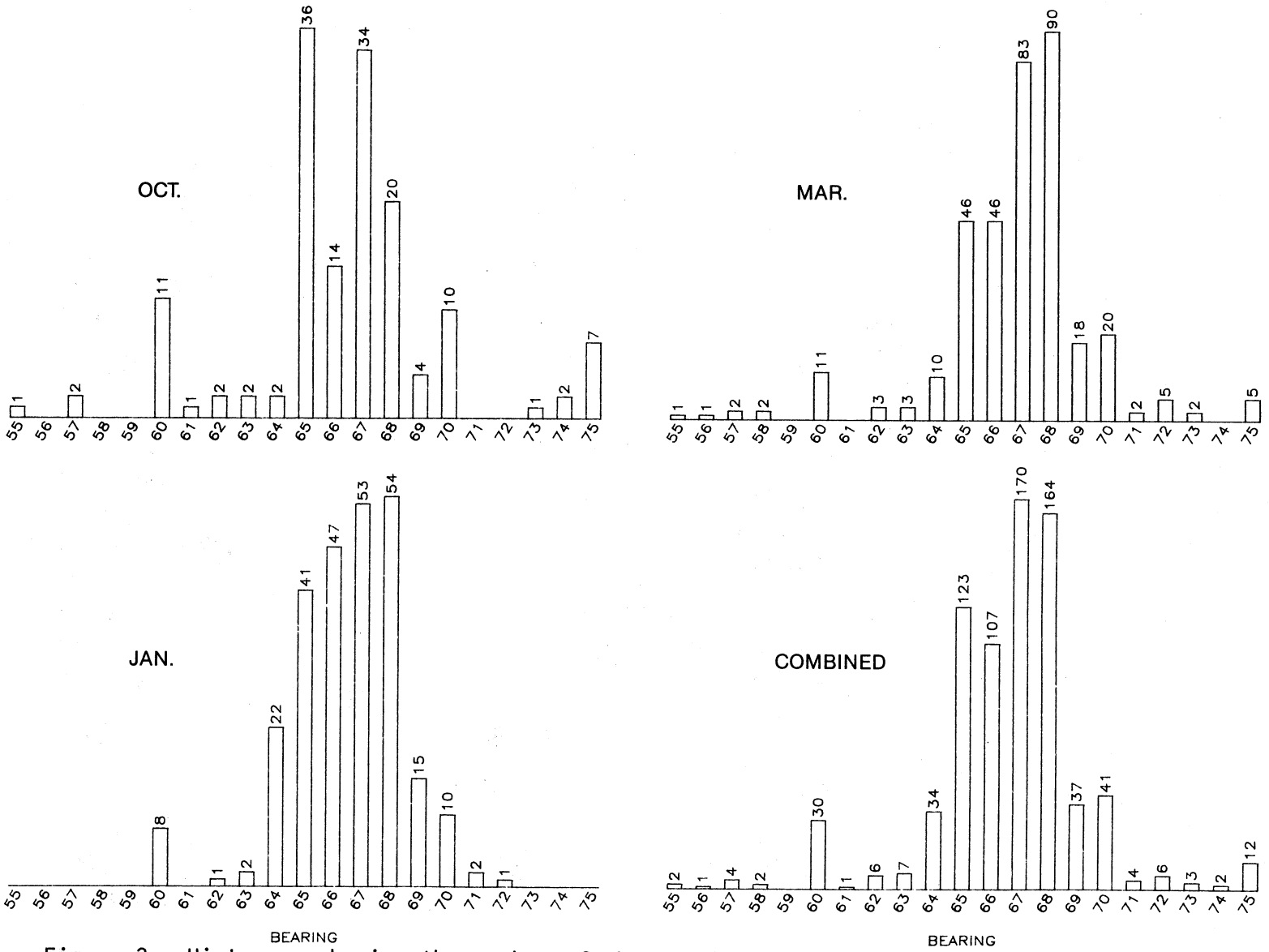

Figure 3. Histogram showing the number of observations of each bearing of the marker TU observed at Baldock, United Kingdom, during October 1984 (top left), March 1985 (top right), January 1986 (bottom left), and the combined data for all three seasons (bottom right).

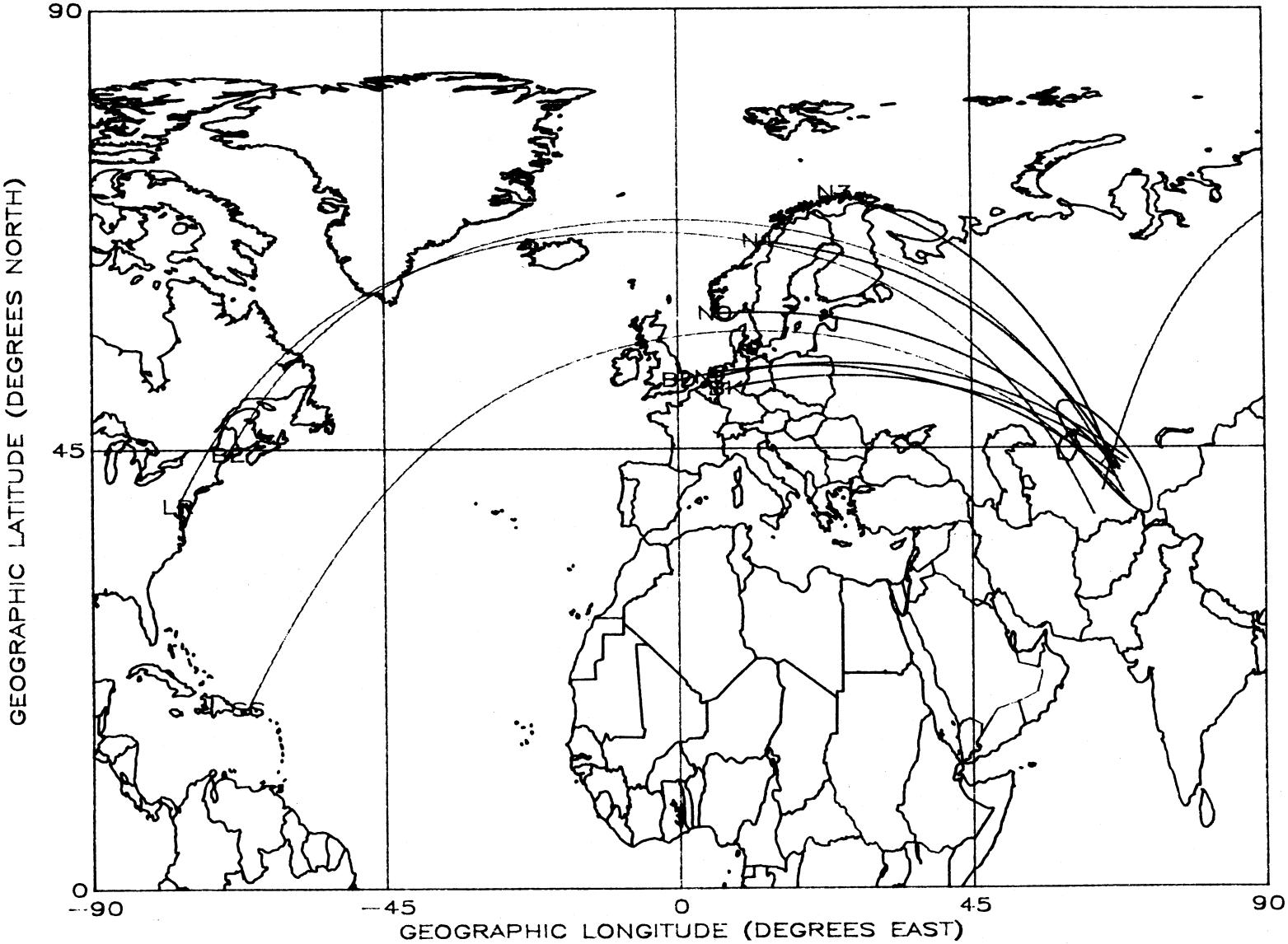

Figure 4. Example of the location of marker 7K by using the most prominent bearings from Belfast, Maine (31^{o}), Laurel, Maryland (30^{o}), Sabana Seca, Puerto Rico (35^{o}), Norway DF0 (85^{o}), Norway DF1 (100^{o}), Norway DF3 (120^{o}), Baldock, United Kingdom (75^{o}), Nedhorst Den Berg, Netherlands (75^{o}), Bockhaken, Germany (76^{o}), and Anchorage, Alaska (333^{o}).

in the continental United States, one in Puerto Rico, and six stations in Europe. The bearings shown emanating from each of the stations in Figure 4 represent the mean from the histogram of bearings on marker 7K. In this case the bearings converge to enable the location of the emitter at 43°N and 66°E. The results presented in the next section of this report are locations generated from preprocessed histogram data (Appendix C) as well as locations generated by incorporating all the observations for the January period (Appendix B).

Another portion of the analysis involves the location of the emissions of harmful interference that are not associated with Morse code identifiers. These types of emissions are identified by a ** identifier in the sample data set (Table 4) under column 5. Although these emitters are not as easily located, there are characteristics and patterns that may be used to combine observations that are taken from the same emitter. For example, a transmission from Taiwan to China on frequency 6087 kHz has been observed to be jammed in the past. This signal is easily noticed in the data set because of the odd frequency associated with it. Other observations are combined by relating the frequency and time of the emission to specific broadcasts and languages. Results of this analysis appear in Section 3.2 of this report.

3. ANALYSIS RESULTS

3.1 Locations of Emitters Identified by Markers

The locations of the emitters of harmful interference that were observed in the January monitoring period are illustrated in Figures 5 and 6. In the figures, the alphanumeric marker is centered on the best point estimate of the emitter. Most of the 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 Poland (B1, LG, XN, RB), Czechoslovakia (D3, R9, U7, Z1), and Bulgaria (K7, R6). Another group of markers is located in the eastern portion of the Soviet Union near the cities of Khabarovsk and Komsomolsk.

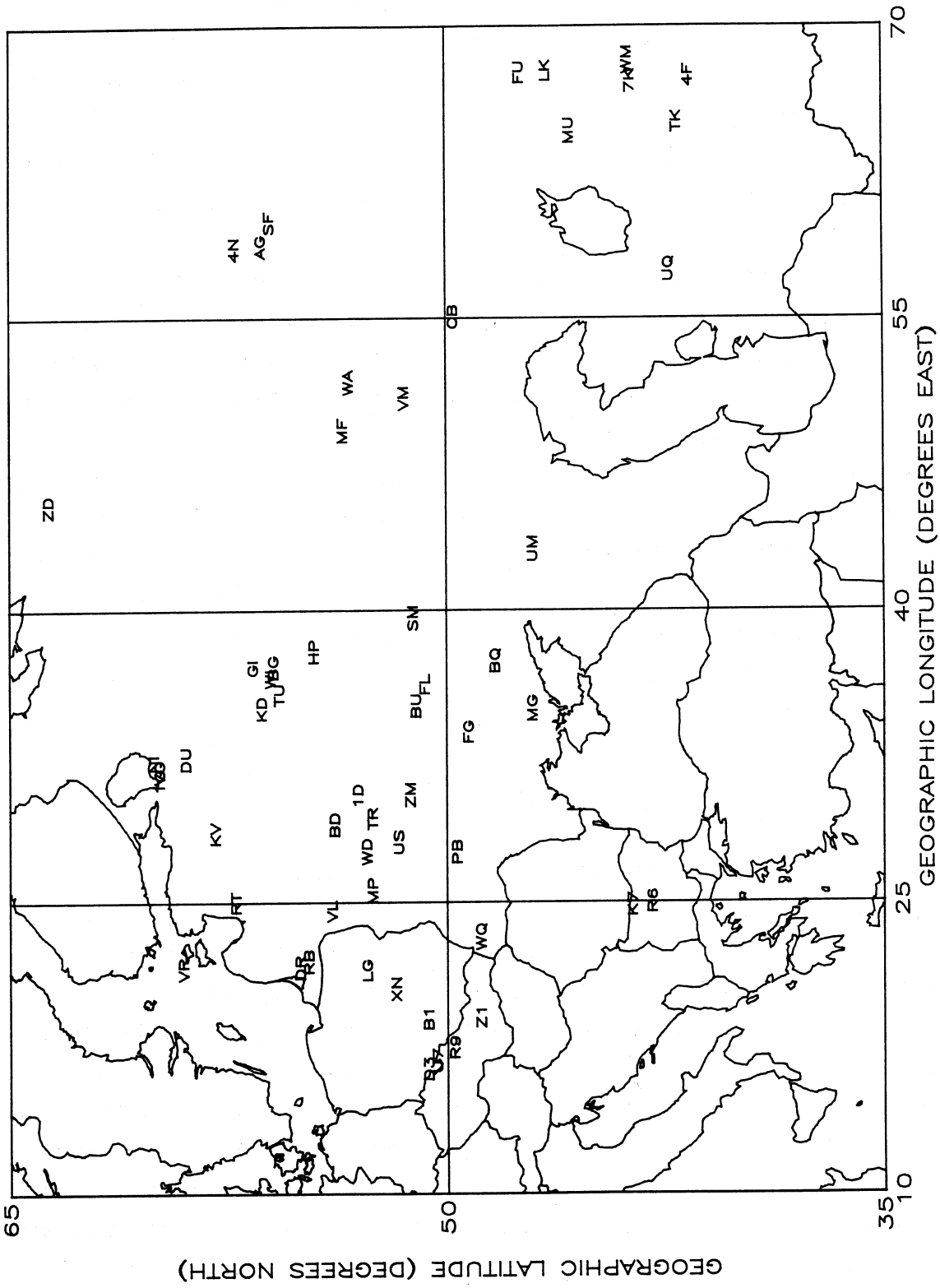

Figure 5. Locations of emitters of harmful interference, indicated by marker ID, in Eastern Europe and the Western Soviet Union during January 1986.

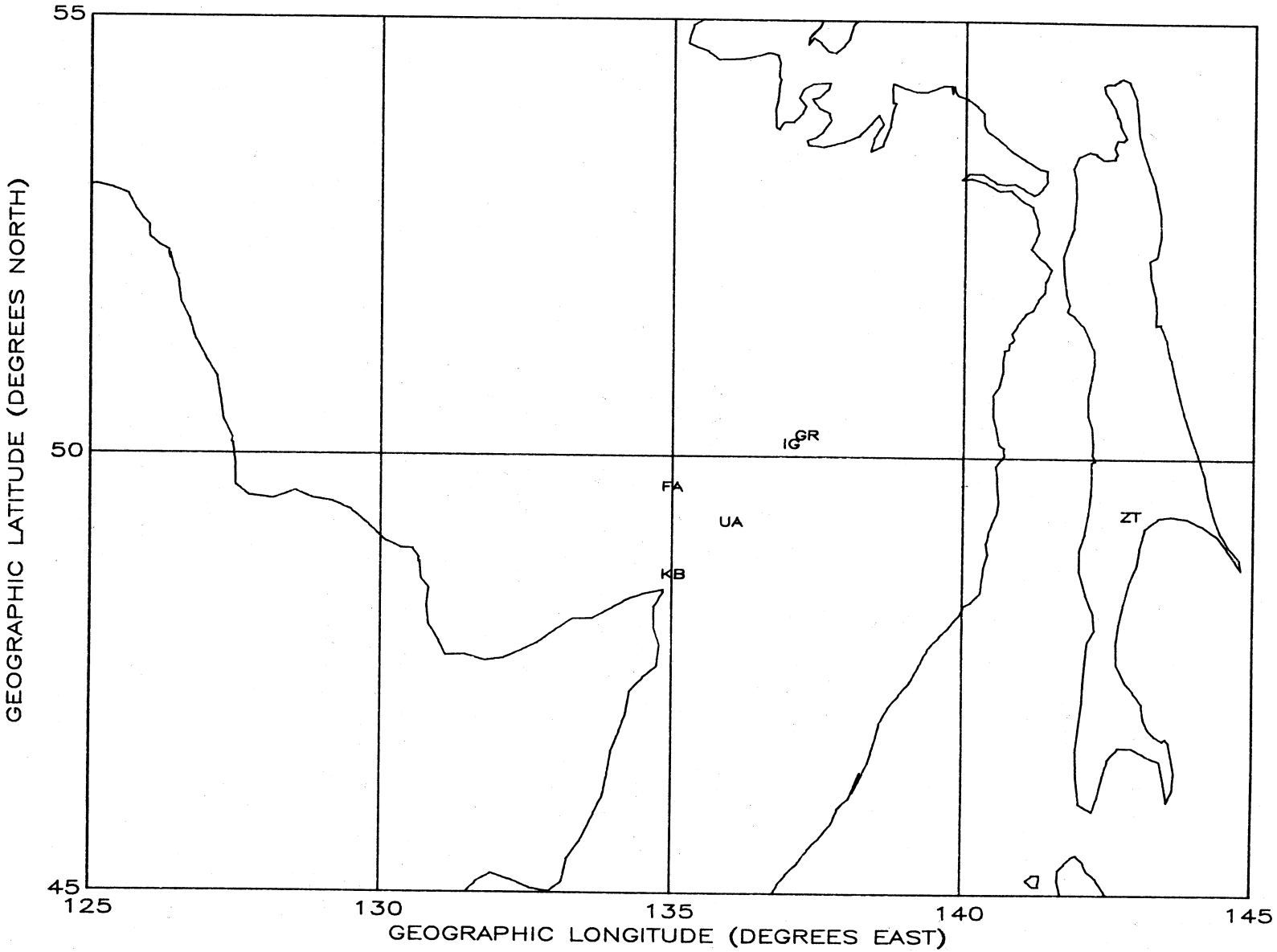

Figure 6. Locations of emitters of harmful interference, indicated by marker ID, in the Eastern Soviet Union during January 1986.

As seen in Appendix B and C, the markers shown in Figures 5 and 6 are associated with confidence ellipses. For purposes of clarity, these confidence ellipses are not shown on the figures. To visualize the size of the ellipses, Figures 7 and 8 show a few of the markers from Figure 5 with the associated 90-percent confidence region. The markers chosen for Figures 5 and 6 were limited to those locations from Appendixes B and C that were contained within an 800 by 400 nautical mile or less confidence region.

Table 5 provides a listing of the locations of the emitters of harmful interference arranged by marker for October 1984, March/April 1985, and January 1986. This table lists the same subset of markers displayed in Figures 5 and 6. The country in which the emitter is contained is indicated by the appropriate ITU country code. When looking through this table, keep 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 most recent monitoring period (in most instances for January 1986) is believed to be the most realistic.

It is readily apparent that many of the locations for which emitters of harmful interference have been isolated are in the Soviet Union. 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 5, 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 5 are in the Soviet Union and the remaining 14 were located as emanating from Eastern bloc countries.

The results shown in Table 5 indicate that for the three seasons the locations for most emitters with the same marker have not changed dramatically. It is not too surprising to find a number of emitters in the highly populated western part of the Soviet Union and Eastern Europe. The western part of the Soviet Union is the area into which many of the international broadcasts are directed. The relatively large number of emitters in the Eastern Siberian region jam broadcast services that are directed to that region. Also, they could be used as sky-wave jammers

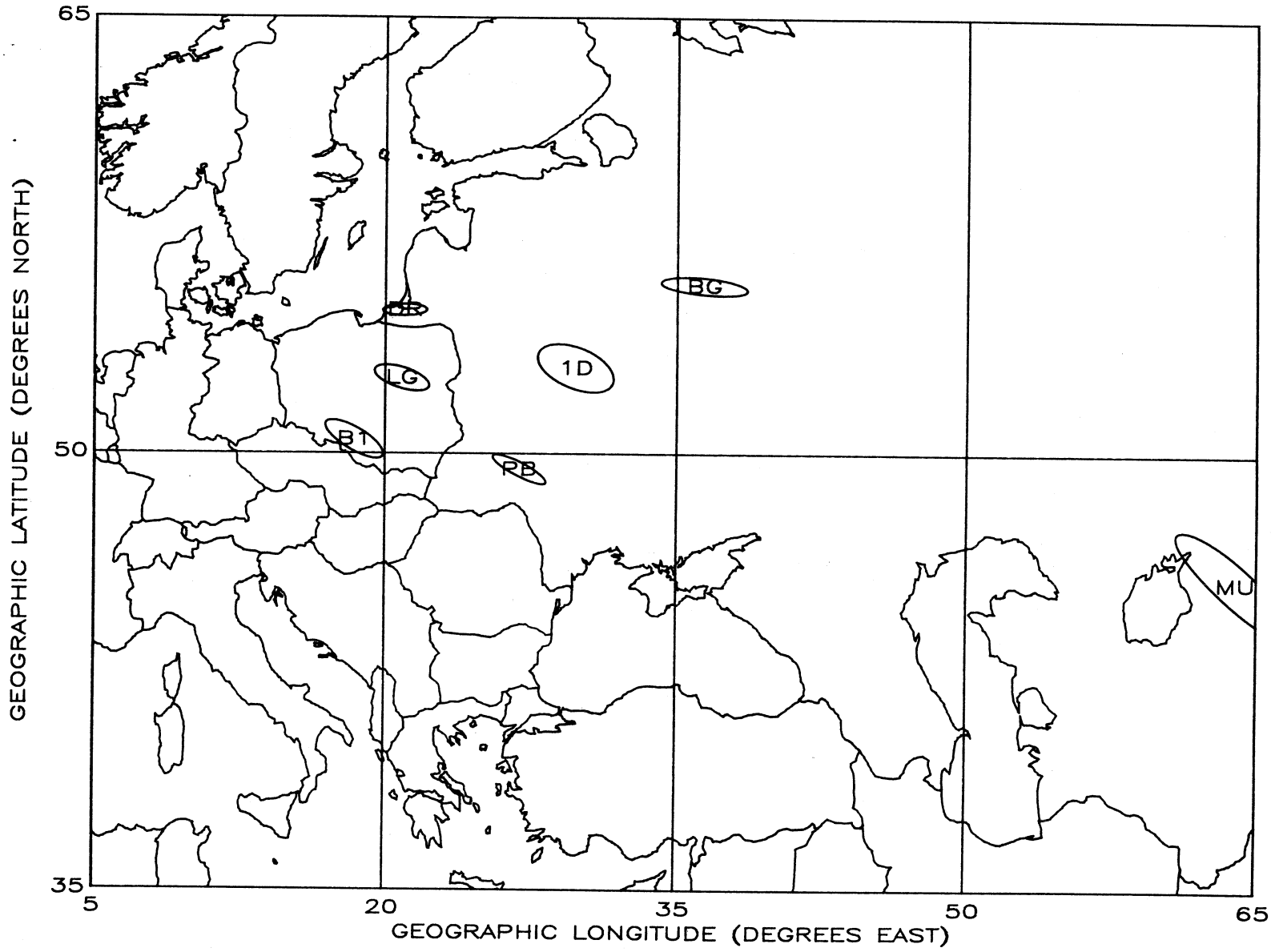

Figure 7. Example of the locations of selected jammer emitters and associated error ellipses in Eastern Europe and the Western Soviet Union.

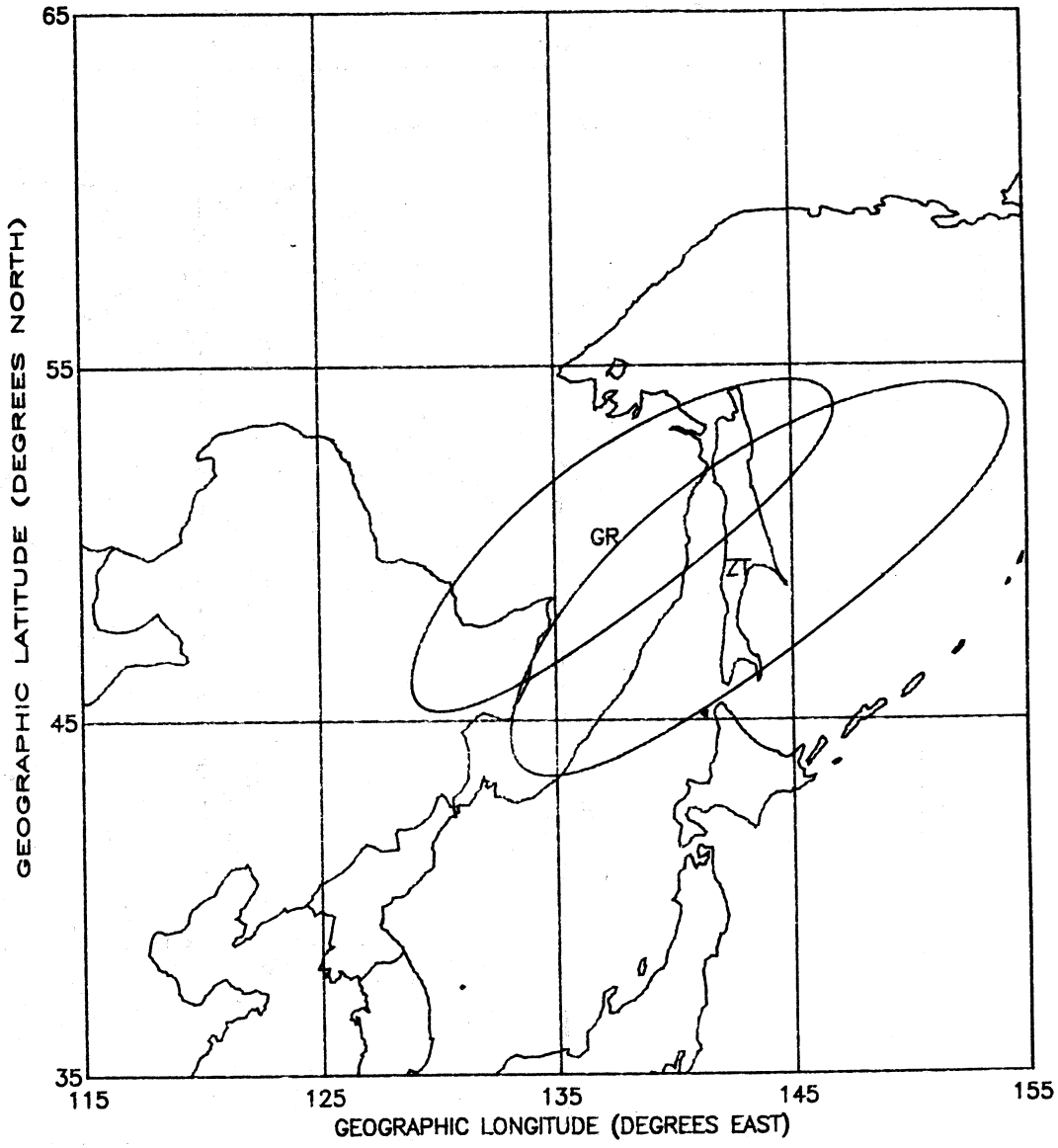

Figure 8. Example of the locations of selected jammer emitters and associated error ellipses in the Eastern Soviet Union.

Table 5. Locations of Emitters of Harmful Interference

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 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
1G	55.1 N, 20.0 E	URS	58.4 N, 27.7 E	URS	59.7 N, 30.6 E	URS
4F	47.2 N, 65.4 E	URS	43.6 N, 51.0 E	URS	41.5 N, 66.8 E	URS
4N	54.4 N, 26.5 E	URS	55.9 N, 55.5 E	URS	57.1 N, 57.9 E	URS
7K	52.4 N, 27.4 E	URS	43.9 N, 67.9 E	URS	43.5 N, 66.5 E	URS
AD	46.1 N, 36.5 E	URS	44.8 N, 46.8 E	URS		
AG	57.2 N, 48.4 E	URS	53.4 N, 69.2 E	URS	56.2 N, 58.1 E	URS
AN	54.2 N, 28.1 E	URS				
AR			54.9 N, 40.9 E	URS		
AS			47.4 N, 54.1 E	URS		
AW			64.9 N, 175.5 E	URS		
B1	49.3 N, 19.3 E	POL	49.7 N, 19.5 E	POL	50.5 N, 18.4 E	POL
BD	52.1 N, 17.7 E	POL	49.7 N, 24.9 E	POL	53.7 N, 28.3 E	URS
BG	54.6 N 40.4 E	URS	55.9 N, 38.5 E	URS	55.8 N, 36.4 E	URS
BL			54.5 N, 28.8 E	URS		

Table 5. Locations of Emitters of Harmful Interference (continued)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code
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
CB	53.6 N, 35.9 E	URS	50.7 N, 51.5 E	URS	49.6 N, 54.4 E	URS
D3	49.0 N, 16.2 E	TCH	49.6 N, 17.0 E	TCH	50.5 N, 15.8 E	TCH
DA	50.6 N, 24.5 E	URS				
DB					48.4 N, 78.6 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
DU			57.9 N, 25.9 E	URS	58.8 N, 31.4 E	URS
FA	62.2 N, 177.2 E	URS	49.6 N, 134.8 E	URS		
FG	52.2 N, 17.6 E	POL	49.8 N, 36.9 E	URS	49.2 N, 33.1 E	URS
FL	50.3 N, 29.7 E	URS	49.4 N, 37.7 E	URS	50.3 N, 35.4 E	URS
FU	53.0 N, 23.9 E	URS	54.0 N, 17.7 E	POL	50.9 N, 55.2 E	URS
G1	48.8 N, 23.5 E	URS				
G3			43.3 N, 22.7 E	BUL		
GI	55.3 N, 38.8 E	URS	56.4 N, 37.8 E	URS	56.5 N, 36.6 E	URS
GJ	55.5 N, 36.2 E	URS				

Table 5. Locations of Emitters of Harmful Interference (continued)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code
GM	49.9 N, 137.5 E	URS	49.8 N, 134.3 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
GS	54.4 N, 40.4 E	URS				
HM			52.8 N, 52.2 E	URS		
HP	50.1 N, 17.0 E	TCH	48.0 N, 35.5 E	URS	45.4 N, 37.2 E	URS
IG	48.5 N, 135.5 E	URS	50.0 N, 136.5 E	URS	50.1 N, 136.9 E	URS
IN	49.3 N, 30.3 E	URS				
IR			58.0 N, 33.3 E	URS		
K7			42.8 N, 25.1 E	BUL	43.8 N, 24.2 E	BUL
KB	51.9 N, 133.5 E 47.8 N 136.3 E	URS	48.5 N 135.2E	URS	48.6 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
KF	50.3 N, 16.0 E	TCH				
KM	46.2 N, 39.4 E	URS				
KV	58.2 N, 25.8 E	URS	56.2 N, 30.9 E	URS	57.8 N, 27.9 E	URS
LG					52.6 N, 20.9 E	POL
LK	53.3 N, 19.6 E	POL	54.8 N, 31.5 E	URS	46.4 N, 67.1 E	URS

Table 5. Locations of Emitters of Harmful Interference (continued)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code
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
MG					46.9 N, 34.2 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
MX	53.3 N, 15.5 E	POL				
NI					59.9 N, 31.7 E	URS
NS	47.6 N, 27.9 E	URS	47.9 N, 27.5 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
PF					60.6 N, 162.5 E	URS
PK	56.8 N, 41.0 E	URS				
PL	52.0 N, 18.8 E	POL	51.4 N, 35.9 E	URS		
R6			43.0 N, 26.4 E	BUL	42.8 N, 24.4 E	BOL
R9	51.1 N, 14.9 E	DDR	50.3 N, 16.7 E	POL	49.6 N, 16.9 E	TCH
RB	55.4 N, 23.6 E	URS	54.8 N, 21.5 E	URS	54.6 N, 21.3 E	POL
RT	54.7 N, 19.0 E	URS	56.5 N, 27.7 E	URS	57.1 N, 24.4 E	URS

Table 5. Locations of Emitters of Harmful Interference (continued)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code
S5			49.4 N, 13.1 E	TCH		
SB					68.2 N, 34.1 E	URS
SF					55.9 N, 59.3 E	URS
SM					51.0 N, 38.9 E	URS
ST	55.6 N, 26.9 E	URS	57.3 N, 24.2 E	URS		
SU	50.2 N, 38.9 E	URS				
TK	62.2 N, 24.8 E	URS	40.9 N, 67.6 E	URS	41.9 N, 64.5 E	URS
TR	51.0 N, 19.2 E	POL	46.0 N, 33.4 E	URS	52.4 N, 28.7 E	URS
TU	54.9 N, 36.6 E	URS	55.7 N, 36.1 E	URS	55.6 N, 35.1 E	URS
U7	50.0 N, 15.7 E	TCH	49.5 N, 16.1 E	TCH	50.2 N, 16.2 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	51.5 N, 27.4 E	URS
US			52.6 N, 28.7 E	URS	51.5 N, 27.4 E	URS
VF	47.3 N, 41.1 E	URS				
VG			59.0 N, 30.4 E	URS	59.7 N, 31.1 E	URS

Table 5. Locations of Emitters of Harmful Interference (continued)

ID	Oct 84	ITU Country Code	March/ April 85	ITU Country Code	Jan 86	ITU Country Code
VL					53.8 N, 25.0 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
W1	48.5 N, 18.6 E	TCH				
WA			54.7 N, 43.9 E	URS	53.2 N, 51.0 E	URS
WD	55.1 N, 38.5 E	URS	52.9 N, 34.8 E	URS	52.6 N, 26.9 E	URS
WI	55.6 N, 30.8 E	URS	55.1 N, 24.8 E	URS	55.9 N, 36.0 E	URS
WM			49.2 N, 55.4 E	URS	43.6 N, 67.5 E	URS
WQ	46.7 N, 24.7 E	ROU	50.3 N, 20.1 E	POL	48.7 N, 22.5 E	URS
XN					51.6 N, 19.9 E	POL
Z1			49.0 N, 15.4 E	TCH	48.7 N, 18.5 E	TCH
ZD					63.5 N, 44.7 E	URS
ZM	53.6 N, 22.7 E	POL	51.9 N, 17.3 E	POL	49.6 N, 32.1 E	URS
ZT	47.3 N, 138.2 E	URS			49.3 N, 142.7 E	URS

covering large areas of the middle of the Soviet Union. Observations indicate that the times and frequencies of the jamming activity in the Kharbarovsk area are associated with broadcasts from Western Europe. Also, from past experience, it has become apparent that there are usually several different markers from widely varying geographic regions that appear to be targeted against a single broadcast (Sowers et al., 1985).

3.2 Locations of Emitters of Unidentified Transmissions

Thus far, the discussion has been limited mainly to locating jammers that were identified with a call sign or marker. The January monitoring schedule was arranged to examine frequencies that had been noticed in the past emitting harmful interference without the transmisssion of a marker. Approximately 12 percent of the signals recorded from the monitor sites in January did not have a marker associated with them. Contrary to the emitters described in the previous section, some of these transmissions appeared to originate in countries outside of the Soviet Union and Eastern bloc countries. Since it was not possible to combine data on the basis of common markers in order to geolocate the source of the jamming signal, a new procedure was adopted to locate these "unmarked" transmitters. For this portion of the analysis, the subset of the data containing only unidentified sources of jamming was examined on a case by case analysis. As mentioned before, observations from unidentified sources of interference are indicated in the data set by a ** under column 5 as shown in the sample data set in Table 4.

By extracting a list of the unidentified observations from the data set and attributing to each of the observations a particular broadcast organization and language, it was possible to observe patterns in the unmarked jamming signals. Further separations by frequency and time of day of the emission allowed associating jamming signals that were likely to be emanating from the same source. For example, if a signal was heard continuously by several different stations on a single frequency and language, then it was assumed that the monitoring stations were observing the same signal and the data from these observations were combined to geolocate the source of the jamming. The locations of all of the jammers found in this manner are contained in Appendix D.

Examples of the locations of several unmarked jammers are listed by

frequency in Table 6. Also contained on this table are the language and broadcaster believed to be the target of the jammer. While it can be seen that there are unmarked jammers located in the Soviet Union and Eastern bloc countries, there are other countries that are identified as locations of jammers. Jammers were located in China, Iran, and Iraq. Both of the Chinese jammers in Table 6 were associated with broadcasts from Taiwan to China. Although the jammers located in Iran and Iraq were not associated with a specific language, they are likely locations for jamming. Figures 9 and 10 illustrate the locations of the BPE of most of these unmarked sources of jamming. Unidentified sources of jamming were found targeted against Iranian broadcasts into Iraq. As can be seen from Appendix D, jammed frequencies that were broadcasting Arabic from Iran include 6150, 7215, and 11745 MHz. The location of these jammers (from Table 6 and Appendix D) vary due to the margin for error associated with the individual observations. When the observations from all of these frequencies are combined, the location of the jammer stabilizes at 50.7°N, and 21.2°E, with an error allowance of only 25 nmi. It is possible that the broadcasts being jammed at the time of observation are operating co-channel or adjacent channel to the Iranian/Arabic broadcasts. If this is the case, then the jamming attributed to the Iranian broadcast must be considered as incidental or "third party."

3.3 Statistical Results of Monitoring Campaigns

In October and November 1985, monitoring campaigns were undertaken to collect marker data in preparation for the January 1986 IFRB monitoring session. The reason for two sessions was to determine a set of markers that could be predicted to jam certain broadcasts. The November campaign was instigated to gather data during the same broadcast season as the January IFRB session as well as to ascertain a degree of consistency in the data collected during the October period.

The October monitoring session was conducted from October 7 through 11, 1985 and the November session was conducted from November 7 through 11, 1985. Several administrations throughout the world cooperated with the Institute for Telecommunication Sciences in an observational program to monitor that portion of the HF spectrum allotted to broadcasting. For this program, data from Australia, Canada, Federal Republic of Germany,

Table 6. Location of Unmarked Emitters of Harmful Interference.*

FREQUENCY	LANGUAGE/BROADCASTER	LOCATION	COUNTRY CODE
5960	unknown	55.9N 19.5E	POL
6087	CHIN/TAI	30.2N 115.8E	CHN
6140	HUNG, RUSS, POLI/BBC	50.0N 26.1E	URS
6155	unknown	36.9N 44.6E	IRQ
7105	CHIN/TAI, RUSS/VOA	55.0N 19.0E	POL
7125	unknown	32.0N 49.6E	IRN
7150	CHIN/TAI	26.9N 109.7E	CHN
7180	AZ, RUSS, CZEC/RFE	47.4N 41.8E	URS
7215	ARAB/IRAN	50.9N 16.4E	POL
7270	RUSS/VOA	49.3N 63.4E	URS
9705	POLI/RFE	54.0N 47.36	URS
11790	unknown	35.0N 46.0E	IRN
11885	RUSS/RL	39.1N 58.3E	URS
6150	ARAB/IRN	50.7N 21.2E	POL
7215	"	"	"
11745	"	"	"
6087	CHIN/TAI	28.4N 113.9E	CHN
6180	"	"	"
9630	"	"	"
9690	"	"	"

*The last two locations are composite locations that incorporate the indicated frequencies.

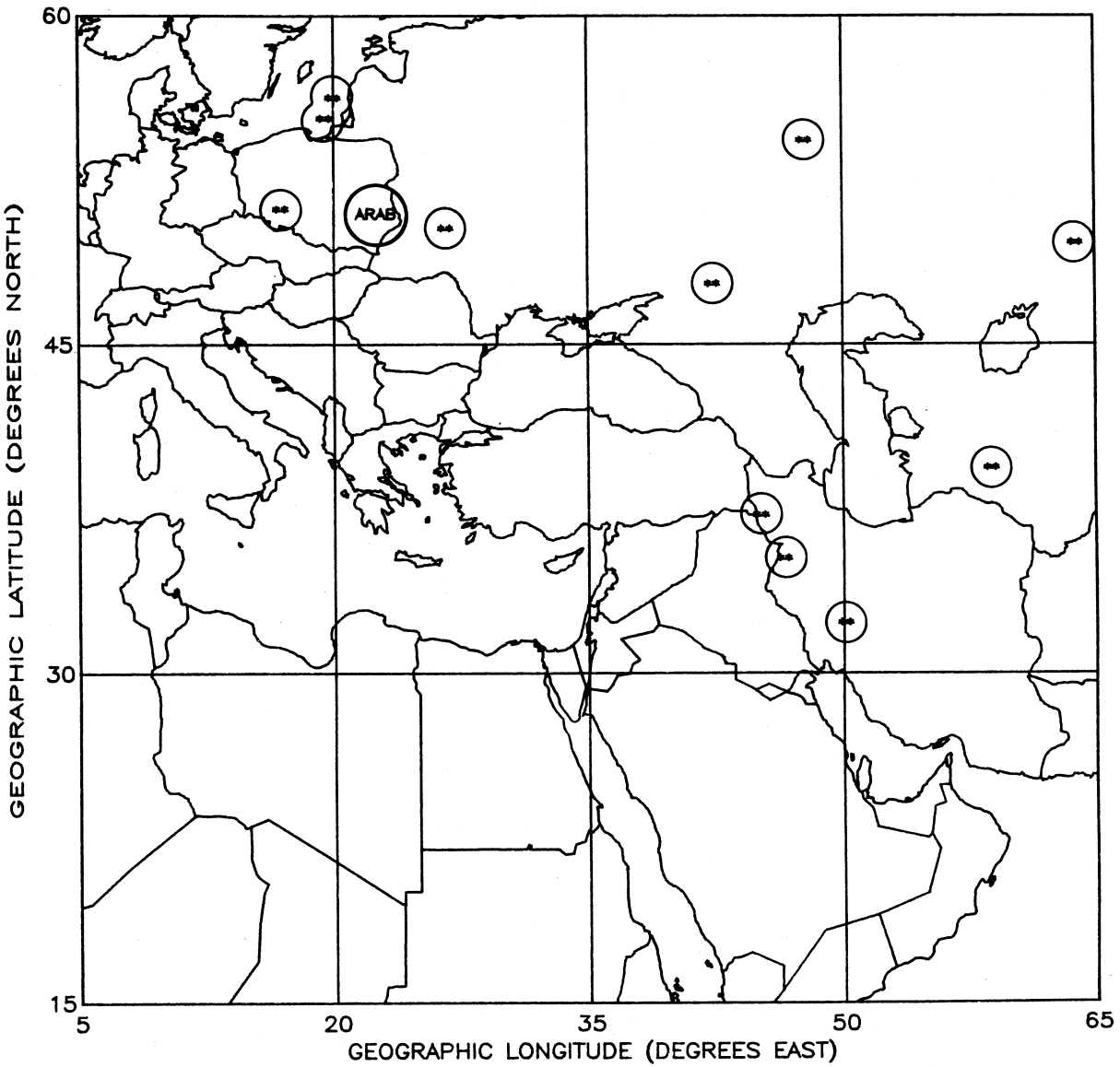

Figure 9. Location of unidentified emissions of harmful interference, indicated by ** in the Middle East and the Soviet Union. The BPE for the composite in Poland is indicated by ARAB.

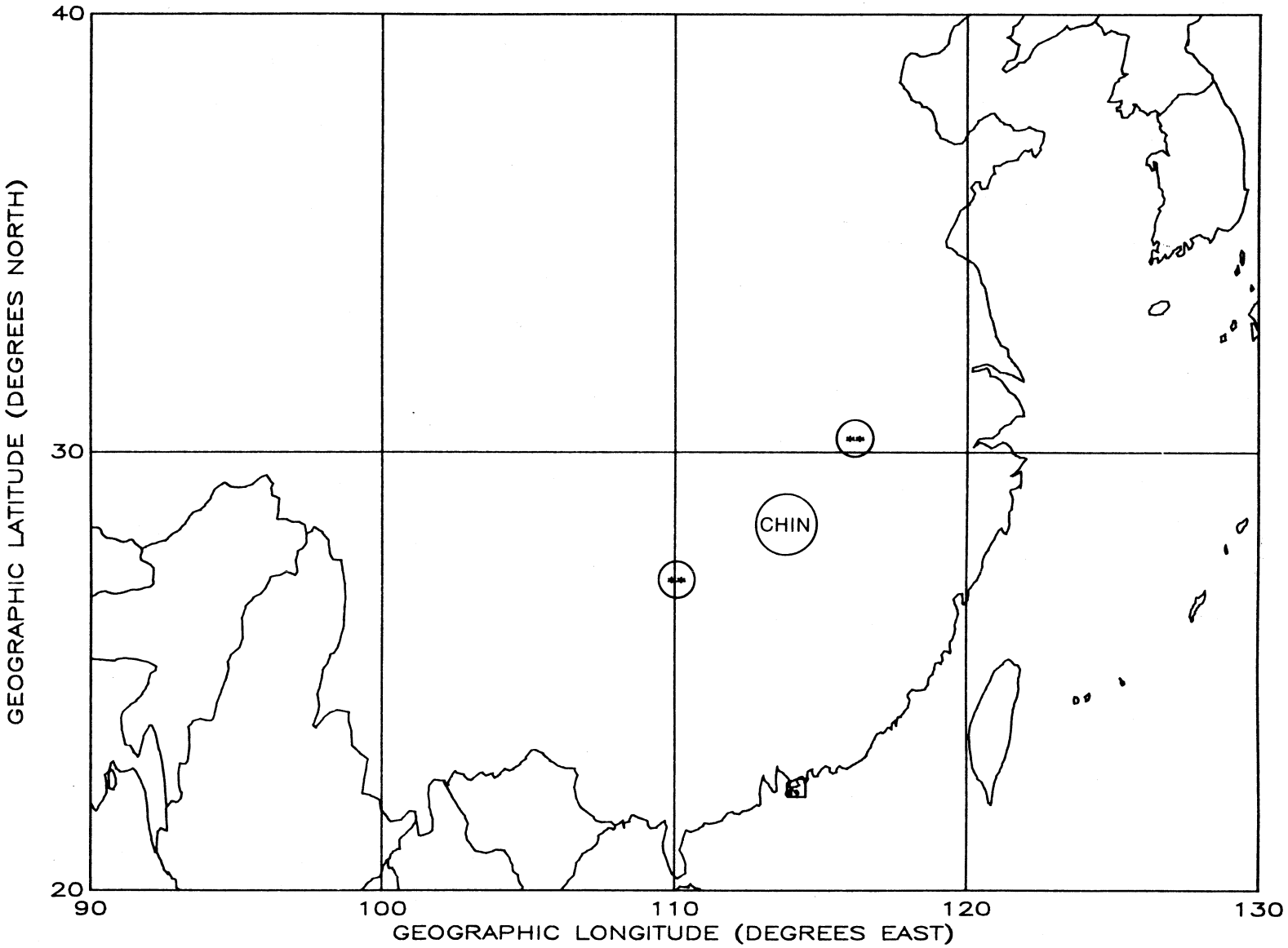

Figure 10. Location of unidentified emissions of harmful interference, indicated by ** in China. CHIN indicates the composite location formulated from several frequencies associated with the Chinese language.

Netherlands, Norway, Republic of Korea, and the United Kingdom were received. The program was designed specifically to relate jammer markers to particular HF broadcast programs and languages. During this time, one 24-hour schedule was followed repeatedly for the 5 days. The 24-hour day was broken into 48 one-half-hour time blocks. During each of these time blocks there was a single frequency that was monitored for the first 10 minutes followed by any of a number of suggested frequencies for the remaining 20 minutes. For each time block, a frequency band for monitoring during the last 20 minutes was also stated.

During the October 7-11, 1985, monitoring period, 282 different markers were identified from the monitoring data--103 of which were observed on eight or more different occasions. Table 7 provides a list of markers observed during the entire period sorted by frequency of occurrence for each marker. It gives the exact number of observations for each of the markers. The major identifiers are similar to those noticed in the October 1984 and March/April 1985 monitoring periods. The markers TU, PB, MU, WI, TK, 4F, 1G, and BG are among the markers observed most during all three of the periods. There were a few surprises in the October 7-11, 1985 period. A marked increase in activity was noticed in the markers SM and XN, for example. This increase in activity may be a function of the difference in monitoring philosophy adopted in October 1985, that is, in the collecting of marker data rather than bearing data characteristic of previous periods.

Table 8 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 10 minutes of the time blocks at 5 different time blocks for 5 days, or 25 times, with jamming observed in 21 of these time blocks. Out of the second 20-minute period of monitoring, jamming was noticed on the VOA broadcasts within the specified bands during 114 time blocks for the entire week. Broadcasts for several languages may be observed within the same time block; for example, there were 84 observations of jamming of VOA Russian, 25 observations of jamming of VOA Polish, and a few for each of the minority languages of the Soviet Union.

Table 9 shows a listing of all markers noticed in the November 1985 session. Table 10 includes a summary of the data for each broadcaster. For the first 10 minutes of the time block, the interesting feature noticed was

Table 7. Frequency of Occurrence of Jammer Identification Markers Observed During the October 7-11, 1985, Monitoring Period

Only observations in accordance with IFRB monitoring schedule are included. ID's with less than eight observations are ignored.

103 unique jammer ID's observed

375 TU	356 PB	286 MU	226 NS	187 MF	167 4F	164 WI
152 FU	145 TK	142 1G	137 BG	125 SM	120 WM	110 DU
105 7K	101 WA	98 US	93 TR	87 CB	87 XN	86 GI
83 KD	76 LK	75 MG	72 DR	70 K7	70 R9	65 BQ
65 WD	64 NI	62 FL	62 LG	59 PL	58 B1	58 VG
55 BD	50 VL	48 MP	48 Z1	45 HP	44 AD	44 LF
43 1D	43 4N	42 FG	42 U7	39 RT	38 D3	38 SB
36 R6	36 XI	35 AS	34 AG	34 KF	34 VR	33 DA
32 AN	32 HM	32 S5	31 CG	28 IR	27 8L	27 CA
27 FR	25 DB	25 UN	25 Z3	24 UB	24 ZM	22 LT
22 VI	21 BL	20 WG	19 GR	19 MA	19 UQ	18 UR
17 VM	16 RQ	15 KB	15 L4	15 PK	14 FA	14 KM
14 RS	14 VN	13 BR	13 DP	13 LM	13 ZT	12 WQ
11 MX	11 ST	10 IG	9 A5	9 L8	9 LR	9 SF
9 XD	8 BU	8 DV	8 UA	8 XW		

Table 8. Summary of Jamming Statistics by Broadcaster and Language for October 7-11, 1985

VOA Voice of America

	0-10	11-29	Jams
RUSS	21/ 25	84	620
POLI	5/ 5	25	118
EST	5/ 5	5	45
UKR	0/ 0	5	25
PASH	4/ 5	2	19
ARM	0/ 0	7	14
LITH	0/ 0	4	7
AZ	1/ 5	0	1
LAT	0/ 0	1	1
Total	36/ 45	114	850

RFE Radio Free Europe

	0-10	11-29	Jams
POLI	15/ 15	81	459
CZEC	15/ 15	56	306
LAT	0/ 0	15	88
EST	0/ 0	10	65
HUNG	0/ 0	32	55
LITH	0/ 0	5	41
BULG	5/ 5	0	36
ROMA	0/ 0	11	17
Total	35/ 35	155	1067

RL Radio Liberty

	0-10	11-29	Jams
RUSS	30/ 30	166	1965
UKR	5/ 5	40	213
BR	5/ 5	11	122
TI	0/ 0	15	52
GEOR	0/ 0	15	50
ARM	0/ 0	10	38
AZ	0/ 0	5	32
Total	40/ 40	186	2472

BBC British Broadcasting Corp

	0-10	11-29	Jams
RUSS	20/ 20	37	340
POLI	20/ 20	4	150
Total	40/ 40	41	490

DW Deutsche Welle

	0-10	11-29	Jams
RUSS	23/ 25	20	335
PASH	15/ 15	10	105
CZEC	10/ 10	5	95
BULG	5/ 5	6	56
SERB	3/ 5	0	12
Total	56/ 60	41	603

IBA KOL Israel

	0-10	11-29	Jams
RUSS	15/ 15	13	172
HEBR	4/ 5	0	7
Total	19/ 20	13	179

???? Miscellaneous

	0-10	11-29	Jams
????	0/ 0	125	342
Total	0/ 0	125	342

Table 9. Frequency of Occurrence of Jammer Identification Markers Observed During the November 11-15, 1985, Monitoring Period

Only observations in accordance with IFRB monitoring schedule are included. ID's with less than five observations are ignored.

118 unique jammer ID's observed

670 TU	586 **	459 PB	424 WI	311 TK	295 MU	202 KD
193 4F	182 MF	170 WD	162 BG	153 NS	140 FU	138 U7
137 SM	137 WM	128 7K	127 US	112 GI	110 K7	104 DU
103 4N	87 1D	81 1G	71 B1	71 HM	70 BD	70 TR
68 MP	66 WA	64 FR	64 LK	63 FG	63 KB	61 DR
61 ZM	60 BQ	60 VG	59 PL	58 8L	58 IG	58 LG
55 AN	54 CB	53 FL	51 RQ	49 MG	48 UN	46 BU
45 VL	45 VR	44 VM	44 XI	43 D3	41 SF	40 AG
37 NI	36 LF	35 RT	33 AS	30 S5	29 AD	28 IR
27 DA	27 MA	27 PK	27 R6	27 WG	26 ZT	25 GR
25 R9	24 PA	23 HP	21 DB	20 UB	18 VN	18 Z3
16 KU	16 KV	16 WL	15 PF	14 CG	14 FA	14 KF
14 KM	14 L4	14 L8	13 BR	13 FM	13 SB	13 ST
12 AR	11 WQ	11 XN	10 BL	10 RB	10 Z1	9 --
9 UD	8 BP	8 FS	8 GM	8 M7	8 UR	8 XD
7 1R	7 BN	7 LT	7 M3	7 UA	7 YU	6 A5
6 CA	5 BI	5 MX	5 RD	5 RS	5 UM	

Table 10. Summary of Jamming Statistics by Broadcaster and Language for November 11-15, 1985.

VOA Voice of America

	0-10	11-29	Jams
RUSS	20/ 20	93	797
POLI	5/ 5	30	192
EST	5/ 5	5	81
PASH	5/ 5	3	53
UKR	0/ 0	5	28
AZ	5/ 5	0	19
GEOR	5/ 5	0	17
ARM	0/ 0	6	13
LITH	0/ 0	5	12
DARI	0/ 0	3	6
Total	45/ 45	127	1218

RFE Radio Free Europe

	0-10	11-29	Jams
POLI	15/ 15	76	543
CZEC	15/ 15	54	410
BULG	5/ 5	11	88
EST	0/ 0	10	56
LAT	0/ 0	10	54
LITH	0/ 0	10	35
HUNG	0/ 0	21	25
ROMA	0/ 0	5	7
Total	35/ 35	152	1218

RL Radio Liberty

	0-10	11-29	Jams
RUSS	30/ 30	155	2187
UKR	5/ 5	50	398
AZ	5/ 5	14	187
TI	0/ 0	24	121
TB	0/ 0	15	89
ARM	0/ 0	13	71
GEOR	0/ 0	12	57
BR	0/ 0	5	39
Total	40/ 40	200	3149

BBC British Broadcasting Corp

	0-10	11-29	Jams
RUSS	20/ 20	38	510
POLI	20/ 20	0	198
BULG	0/ 0	5	9
ARAB	0/ 0	1	8
PORT	0/ 0	1	2
GERM	0/ 0	1	1
HUNG	0/ 0	1	1
Total	40/ 40	45	729

DW Deutsche Welle

	0-10	11-29	Jams
RUSS	25/ 25	16	549
PASH	15/ 15	8	159
CZEC	10/ 10	5	91
BULG	10/ 10	4	88
Total	60/ 60	33	887

IBA KOL Israel

	0-10	11-29	Jams
RUSS	15/ 15	9	217
HEBR	5/ 5	0	35
Total	20/ 20	9	252

???? Miscellaneous

	0-10	11-29	Jams
????	0/ 0	150	448
CTAW	0/ 0	6	34
TBIX	0/ 0	5	21
EALB	0/ 0	5	13
RALB	0/ 0	4	12
SPAK	0/ 0	3	4
RCHI	0/ 0	1	1
Total	0/ 0	154	533

that jamming was recorded on the specified frequency in every block for all 5 days of monitoring. Also presented in Table 10 are summaries for each of the broadcasters during the second 20 minutes of monitoring where the number of jammed time blocks for one language is compared to the number of total jammed time blocks for all broadcasts. For example, jamming was detected on Russian/VOA during 93 different time blocks. The 127 refers to the number of different time blocks any VOA broadcast was jammed.

A language and broadcaster were assigned to each of the reports of jamming in the data set based on the language and frequency schedules supplied to ITS by the broadcasters. Some of the reported jammed frequencies in the data set were not associated with a language or broadcaster (i.e., ????/???? in the tables). This may be caused by insufficient broadcast schedule information or perhaps because the jammers were actually targeted on adjacent channel broadcasts. If any of the broadcast schedules changed during the monitoring period, this would yield further inconsistencies in the data set.

Table 11 contains an example of a summarized listing of the data sorted to illustrate the set of markers targeted against a particular broadcaster. Table 11 contains the broadcasts for which there were six or more jammers noticed in the same block including the number of stations reporting each individual marker. The number of monitoring stations observing a given marker is indicated in the parenthesis to the right of the marker. It can be seen that there are numerous instances of multiple markers applied against specific broadcasts.

Further details of the results obtained during the October and November 1985 monitoring sessions are documented in the unpublished reports "Reports of the October 1985 Monitoring Campaign" by Mary W. Sowers and Gregory R. Hand and "Results of the November 1985 Monitoring Campaign" by Mary W. Sowers and Gregory R. Hand.

As mentioned above, one of the purposes of conducting the October and November 1985 monitoring campaigns was to obtain information about the likely markers that would be observed during the IFRB-coordinated January 1986 monitoring period. Table 12 provides a listing of all the markers (Jammer ID's) that were observed during January 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 all observed at least four times during the monitoring period. The numbers given beside

Table 11. Programs with six or more Simultaneous Jammers for November 11-15, 1985, Time Blocs 31-37.

TIME PERIOD	DATE	PROGRAM	FREQ	MARKERS
BLOC 31 1500-1529	Nov 13	RUSS/RL	9520(6)	= GI(1) MF(1) RB(1) RQ(2) TK(2) TU(1)
BLOC 31 1500-1529	Nov 14	RUSS/RL	9520(7)	= GI(1) GR(2) KB(4) MF(1) RQ(1) TK(11) US(2)
BLOC 31 1500-1529	Nov 15	RUSS/RL	9520(6)	= GI(1) GR(3) IG(3) KB(5) RQ(1) TK(2)
BLOC 32 1530-1559	Nov 12	AZ /RL	11875(8)	= AN(1) DU(1) MA(1) MG(1) MU(1) NS(1) R9(1) WI(7)
BLOC 32 1530-1559	Nov 12	RUSS/DW	11945(7)	= BD(1) FG(1) HM(1) LK(1) PB(1) RQ(1) TU(3)
BLOC 32 1530-1559	Nov 13	EST /VOA	11960(6)	= FU(2) KU(1) KV(2) LF(8) SM(2) TU(2)
BLOC 32 1530-1559	Nov 14	EST /VOA	11960(8)	= **(2) FU(1) KU(1) KV(2) LF(3) PA(5) ST(3) TU(2)
BLOC 32 1530-1559	Nov 14	LAT /RFE	11970(7)	= AD(1) MF(1) SM(1) TK(2) TU(2) U7(2) WM(.1)
BLOC 32 1530-1559	Nov 15	RUSS/RL	11885(6)	= DU(2) RQ(1) TR(1) TU(1) U7(1) US(1)
BLOC 33 1600-1629	Nov 11	RUSS/DW	9615(10)	= AG(1) BD(2) FG(1) NI(3) PB(1) TU(1) UD(3) WD(1) WI(6) XN(1)
BLOC 33 1600-1629	Nov 11	RUSS/BBC	9635(6)	= BD(1) PB(4) RB(1) SM(1) VG(1) WI(2)
BLOC 33 1600-1629	Nov 12	RUSS/DW	9615(8)	= BD(5) D3(1) FM(2) NI(1) PB(3) TR(2) WI(6) XN(2)
BLOC 33 1600-1629	Nov 12	RUSS/BBC	9635(7)	= FA(3) NI(1) PB(5) RB(1) RQ(1) VN(2) WI(2)
BLOC 33 1600-1629	Nov 13	RUSS/DW	9615(8)	= BN(2) D3(1) LG(4) NI(4) TU(1) VM(5) WD(3) WI(6)
BLOC 33 1600-1629	Nov 14	RUSS/DW	9615(10)	= BD(3) D3(3) FG(2) NI(1) PB(1) PK(2) TR(2) UD(2) WD(1) WI(2)
BLOC 33 1600-1629	Nov 15	RUSS/DW	9615(6)	= **(1) BD(4) D3(3) NI(2) WD(3) WI(8)
BLOC 33 1600-1629	Nov 15	RUSS/BBC	9635(7)	= BD(1) BG(1) FA(3) FG(2) RQ(2) VN(1) WI(2)
BLOC 34 1630-1659	Nov 11	RUSS/BBC	11780(6)	= BD(1) FA(1) MG(1) PB(2) TU(4) WL(1)
BLOC 34 1630-1659	Nov 12	RUSS/VOA	11710(9)	= **(1) BD(2) IG(1) NS(1) SM(1) TR(1) TU(1) VG(1) WD(1)
BLOC 34 1630-1659	Nov 12	RUSS/RL	11770(6)	= MG(1) NS(1) SM(2) TU(1) WI(1) XI(1)
BLOC 34 1630-1659	Nov 12	RUSS/BBC	11780(7)	= FL(5) FM(2) SM(4) TU(1) UD(1) WD(3) XI(4)
BLOC 34 1630-1659	Nov 13	RUSS/BBC	11780(10)	= FG(2) FL(1) GM(1) PB(4) SM(2) UB(3) VG(1) WD(3) WL(3) XI(1)
BLOC 34 1630-1659	Nov 14	RUSS/BBC	11780(8)	= BG(3) MF(1) NI(2) PB(2) TU(7) UB(2) UD(2) WD(3)
BLOC 34 1630-1659	Nov 15	RUSS/BBC	11780(7)	= BD(2) BG(2) PB(1) SM(1) TU(5) UD(1) WD(6)
BLOC 35 1700-1729	Nov 11	UKR /RL	11885(7)	= BD(1) BU(1) CA(2) FU(2) PL(4) TR(2) US(3)
BLOC 35 1700-1729	Nov 12	GEOR/RL	11875(6)	= AD(1) BQ(1) KM(2) NS(1) R9(4) WI(1)
BLOC 35 1700-1729	Nov 12	UKR /RL	11885(8)	= BQ(1) CA(2) FG(2) FU(1) SB(3) U7(4) US(8) WI(1)
BLOC 35 1700-1729	Nov 13	UKR /RL	11885(8)	= **(2) BR(1) BU(2) FU(3) LG(2) SB(3) U7(2) US(5)
BLOC 35 1700-1729	Nov 14	UKR /RL	11885(11)	= BD(3) BG(2) CA(1) FM(2) FU(4) MG(2) PB(1) SB(1) TU(1) US(7) WG(2)
BLOC 35 1700-1729	Nov 15	UKR /RL	11885(7)	= FU(2) PB(1) TU(4) U7(2) US(9) WI(2) ZM(1)
BLOC 36 1730-1759	Nov 12	TB /RL	9725(6)	= FL(1) GI(1) HP(1) LK(1) RQ(1) SM(2)
BLOC 36 1730-1759	Nov 12	RUSS/DW	9770(8)	= CB(1) FG(1) FL(3) NS(1) RQ(1) TU(2) U7(2) VR(1)
BLOC 36 1730-1759	Nov 13	TB /RL	9725(6)	= BG(1) GI(1) HM(2) TU(2) VM(1) XN(1)
BLOC 36 1730-1759	Nov 13	RUSS/DW	9770(10)	= BG(1) BU(1) FU(2) HM(1) IR(1) PB(2) RQ(1) SM(1) TU(1) WI(1)
BLOC 36 1730-1759	Nov 14	RUSS/DW	9770(7)	= FU(2) MG(1) NI(1) NS(3) PB(2) RQ(1) TU(2)
BLOC 37 1800-1829	Nov 11	AZ /RL	9505(6)	= AN(2) DU(1) MA(2) PL(1) U7(2) WI(3)
BLOC 37 1800-1829	Nov 12	AZ /RL	9505(9)	= DU(2) FL(5) HP(5) MA(1) NS(1) PL(1) RD(1) TU(3) WI(2)
BLOC 37 1800-1829	Nov 12	RUSS/RL	9520(10)	= BQ(1) GI(1) KB(3) NS(2) PB(1) TK(4) TU(1) VM(2) VR(1) WI(2)
BLOC 37 1800-1829	Nov 12	UKR /RL	9565(7)	= DR(1) FU(2) GR(1) LK(1) LT(1) NS(2) WI(2)
BLOC 37 1800-1829	Nov 12	RUSS/BBC	9600(6)	= FL(1) NS(1) SM(1) TU(1) WD(1) WM(1)
BLOC 37 1800-1829	Nov 13	AZ /RL	9505(11)	= **(1) AN(1) DB(5) DU(2) MA(5) NS(3) U7(2) UB(2) VL(1) WI(1) ZM(1)
BLOC 37 1800-1829	Nov 13	RUSS/RL	9520(8)	= BU(2) FG(3) IG(3) KB(2) LK(2) TK(2) TU(1) US(1)
BLOC 37 1800-1829	Nov 13	UKR /RL	9565(8)	= FG(1) FU(1) IR(1) MG(2) NS(1) PB(6) TR(1) ZM(3)
BLOC 37 1800-1829	Nov 14	AZ /RL	9505(8)	= DU(2) HP(3) NS(5) TU(3) U7(4) VR(1) WI(3) ZM(1)
BLOC 37 1800-1829	Nov 14	RUSS/RL	9520(7)	= IG(3) KB(5) NS(1) PB(2) TK(9) TU(1) US(1)
BLOC 37 1800-1829	Nov 15	AZ /RL	9505(6)	= DU(4) MA(2) TU(2) U7(6) VR(2) WI(3)
BLOC 37 1800-1829	Nov 15	RUSS/RL	9520(7)	= GI(1) IG(3) TK(6) TU(2) VG(1) VR(1) WI(1)

Number of Simultaneous Markers Heard >>>>>>^ ^<<<< Number of Stations Hearing this Marker

Table 12. Frequency of Occurrence of Jammer Identification Markers Observed During the January 6-26, 1986, Monitoring Period

Only observations in accordance with IFRB monitoring schedule are included. ID's with less than five observations are ignored.

195 unique jammer ID's observed

4061 **	1627 TU	923 7K	908 WI	833 FU	765 4F	743 LK
714 MU	641 TK	614 PB	423 KD	411 DU	391 U7	388 BG
365 DR	350 GI	333 SM	318 KB	317 1G	315 LG	311 VR
310 BD	285 US	281 WD	272 WM	265 MF	256 GR	249 WQ
248 IG	236 VG	234 LM	223 PL	214 NS	210 B1	206 CB
197 4N	195 ZM	194 D3	193 K7	190 R6	189 FG	185 FA
181 8L	179 1D	171 TR	170 HM	169 VL	159 RB	153 R9
148 CG	147 FL	146 IR	144 DB	138 AN	136 Z1	131 AG
130 XN	127 SB	127 ZT	126 NI	120 MP	119 WA	111 UQ
109 MG	103 HP	100 DA	100 UD	99 XI	98 PK	95 RT
93 AD	88 RQ	88 UB	73 FR	70 WG	69 SF	65 KU
65 LR	62 BQ	61 L4	59 KF	59 ML	57 KM	55 S5
53 EE	52 BU	52 GM	50 CA	49 W1	47 Z3	46 ZD
45 A5	45 UA	44 UN	43 UM	42 LF	42 ZA	41 KV
40 LT	37 MW	36 BL	35 UR	34 L8	34 VN	33 BI
33 RD	32 PF	31 SU	30 BN	30 FM	30 MX	30 VM
28 IN	27 DN	27 M7	27 ST	26 WL	25 BR	24 PA
23 VI	20 XD	20 XR	19 5N	19 G7	19 M3	18 W4
17 AK	17 IB	17 RS	16 AR	16 AS	16 G3	15 DW
15 MA	14 G1	13 BK	13 RP	13 UZ	13 XW	12 NA
11 AU	11 AW	11 C1	11 D7	11 GS	10 AQ	10 D1
10 GF	10 GU	10 MS	10 N1	10 RV	10 X1	9 GB
9 PM	9 S7	9 WB	8 4G	8 5F	8 GD	8 RA
8 SG	7 7D	7 7M	7 DK	7 FI	7 NU	6 4R
6 AB	6 GL	6 LD	6 LV	6 MB	6 MV	6 PD
6 RG	5 1R	5 AZ	5 BA	5 BM	5 DG	5 DP
5 FS	5 HA	5 KG	5 KN	5 KR	5 KT	5 NK
5 PG	5 UG	5 UK	5 WN	5 WZ	5 ZK	

the markers denote the number of observations and 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 January 1986 monitoring period, 194 unique markers associated with jamming were observed. Of these, 66 were listed in Table 5 for January along with their locations. It can be seen in Table 12, that the number of observations of harmful interference for which no marker is associated is about three times greater than the most frequently occurring marker.

Table 13 provides a breakout of the number of times specific broadcasters and languages were observed to be subjected to harmful interference during each monitoring period. For each broadcaster, the total number of time blocks jammed refers to the number of half-hour periods in which at least one frequency used by that broadcaster was observed to be jammed. It is possible to observe harmful interference on more than one language for the same broadcaster during a given half-hour time block. The total number of instances of observed jamming for a given broadcaster is thus likely to exceed the number of time blocks during which at least one frequency was subjected to harmful interference. Also, it is possible that numerous instances of jamming of the same language with different markers could occur in the same half-hour time block.

The results presented in Table 13 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 here. 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. These results are in total agreement with those obtained during the October 1984 and March/April 1985 coordinated monitoring periods (Sowers et al, 1985).

4. SUMMARY AND CONCLUSIONS

The results presented in this report for the January 1986 IFRB monitoring period compliment those given by Sowers et al (1985) for the October 1984 and March/April 1985 monitoring periods. Sixty-six emitters of intentional

Table 13. Summary of Jamming Statistics by Broadcaster and Language for January 6-26, 1986

VOA Voice of America

	0-10	11-29	Jams
RUSS	113/113	392	2788
POLI	37/ 37	118	818
UKR	18/ 18	68	334
PASH	12/ 12	21	80
UZBE	12/ 12	18	79
EST	6/ 6	12	49
ARM	2/ 2	17	45
DARI	3/ 3	12	42
GEOR	4/ 4	4	19
LAT	2/ 2	8	15
LITH	1/ 1	6	13
CZEC	0/ 0	2	5
AZ	1/ 1	1	3
KOR	0/ 0	1	1
Total	211/211	539	4291

RFE Radio Free Europe

	0-10	11-29	Jams
POLI	95/ 95	360	2199
CZEC	62/ 63	220	1050
BULG	23/ 23	99	438
HUNG	51/ 51	99	358
LAT	8/ 8	34	175
LITH	7/ 7	36	148
EST	6/ 6	32	141
ROMA	20/ 20	11	45
DARI	0/ 0	3	13
PORT	2/ 2	0	2
Total	274/275	610	4569

RL Radio Liberty

	0-10	11-29	Jams
RUSS	224/224	761	7752
UKR	27/ 27	214	1015
TI	23/ 23	125	732
AZ	10/ 10	57	327
BR	5/ 5	43	214
ARM	3/ 3	50	212
TB	6/ 6	44	205
GEOR	4/ 4	38	176
Total	302/302	837	10633

BBC British Broadcasting Corp

	0-10	11-29	Jams
RUSS	48/ 48	133	919
POLI	19/ 19	38	272
ARAB	0/ 0	23	56
HUNG	0/ 0	6	17
ROMA	0/ 0	8	12
BULG	0/ 0	6	11
FREN	0/ 0	8	9
TURK	0/ 0	5	8
CZEC	0/ 0	3	5
SERB	0/ 0	3	3
SLVK	0/ 0	2	3
GREE	0/ 0	2	2
PORT	0/ 0	2	2
FINN	0/ 0	1	1
Total	67/ 67	200	1320

DW Deutsche Welle

	0-10	11-29	Jams
RUSS	34/ 34	61	501
PASH	18/ 18	15	126
CZEC	14/ 15	15	121
BULG	12/ 12	12	92
Total	78/ 79	103	840

IBA KOL Israel

	0-10	11-29	Jams
RUSS	32/ 32	28	380
HEBR	8/ 8	0	59
BUKH	3/ 3	1	29
YIDD	3/ 3	2	20
GEOR	0/ 0	4	11
Total	46/ 46	34	499

???? Miscellaneous

	0-10	11-29	Jams
ARAB	19/ 19	76	404
CHIN	7/ 7	29	91
????	2/ 2	892	4678
Total	28/ 28	997	5173

harmful interference have been located during January 1986 with 56 being within the boundaries of the Soviet Union. The other 10 locations were placed in Poland (4), Czechoslovakia (4), and Bulgaria (2). It is possible that the 56 emitters located in the Soviet Union are not at 56 distinct locations. The use of the same emitter facilities for different marker identifiers is certainly likely, particularly for those markers that are located in the same general vicinity.

In addition to locations of emitters of harmful interference in the Soviet Union and certain Eastern bloc countries, emitters of interference in China, Iraq, Iran have also been isolated. Jamming by these countries is generally targeted to specific broadcasts (China jamming Taiwan broadcasts, Iraq/Iran jamming each other). The observations of harmful interference that have been attributed to these countries are not accompanied by marker-identifiers that characterize the Soviet Union/Eastern bloc jamming. This feature has made it more difficult to locate the Chinese and Middle East jammers, but reliance on broadcast schedules, languages, and unique frequencies has resulted in a very self-consistent set of emitter locations.

The results of the January 1986 monitoring period show continued jamming of Radio Liberty broadcasts and Radio Free Europe's Polish, Czech, and Bulgarian broadcasts. Likewise, the Voice of America's Russian and Polish service is the target of unabated jamming. The Russian and Polish language broadcasts of the BBC and the Russian, Czech, and Bulgarian language broadcasts of Deutsche Welle continue to be consistently jammed. The Russian, Hebrew, and Yiddish service of KOL Israel was observed to be jammed routinely.

The results of monitoring campaigns gathered during October 1985 and November 1985 point out quite convincingly that many of the broadcasts into the Soviet Union by Western broadcasters are subjected to jamming by more than one jammer. Table 11 provides results that illustrate this in a rather apparent fashion. The January 1986 observations are also consistent with those of October and November 1985.

The jamming in the Soviet Union and selected Eastern European countries appears to be highly coordinated. Furthermore, it is likely that many of the emitters of harmful interference provide signals to large areas of the Soviet Union and the Bloc countries that are propagated via sky wave. Sowers, et al. (1985) discussed this aspect in detail for the October 1984 and March/April 1985 monitoring periods. Similiar conclusions can be inferred from the

observations collected during January 1986. Harmful interference affects not only frequencies that appear to be systematically targeted, but adjacent and distant co-channels utilized by other broadcasters. These "spillover" effects were observed more intensively during the fourth IFRB monitoring campaign, and will be analyzed in a subsequent report.

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APPENDIX A: MONITORING DATA OBSERVED DURING JANUARY 1986

SET D file = DDDD # FIXES= 2269

#	ID	DA	TIME	FREQ	LANG	WHO	LOCATION	SMA	SMI	ORIEN	LAT	LONG										
1	**	6	0420	5960	????	????????????		2183	864	159	40.69N	44.18E	AN	352C	BE	43C	FE	4C	PS	43C		
2	**	6	1341	5960	????	????????????		1144	436	120	62.98N	6.13E	AL	48C	PS	43C	CA	17C	be	18C	KI	41C
													DS	39C								
3	**	7	0250	5960	????	????????????		2279	1225	165	27.25N	72.29E	AN	323C	FL	45C	SS	26C				
4	**	7	0341	5960	????	????????????		1301	820	177	4.93S	71.77E	AN	324C	BE	62C	DS	335C	FE	321C	FL	40C
5	**	7	0415	5960	????	????????????		1036	610	154	13.15S	74.59E	AN	330C	BE	62C	DS	60C	FL	42C	LR	53C
													N0	112B								
6	**	7	0513	5960	????	????????????		2080	362	149	23.48N	51.54E	FL	41C	KI	47C	AN	340C	DS	55C	BE	66C
													SS	46C	N0	110C	N0	117B				
7	**	9	1641	5960	????	????????????		1420	418	96	30.62S	81.81E	PS	68C	DS	274C	BE	90C				
8	**	9	1841	5960	????	????????????		0	0	0	0.00N	0.00E	gi	177C	ki	9C	lr	46C				
9	**	10	0341	5960	????	????????????		1993	1368	161	40.94N	52.74E	DS	5C	SS	47C	WP	342C				
10	**	12	0316	5960	????	????????????		0	0	0	32.43N	47.34E	N0	115A	N2	138B						
11	**	7	0241	5961	????	????????????		0	0	0	57.11N	12.56E	N0	112B	N1	180C						
12	**	6	1346	5980	????	????????????		2001	1115	161	17.89N	57.77E	BE	18C	DS	39C	fe	220C	WP	318C	PS	51C
13	**	6	1841	5980	????	????????????		0	0	0	32.90N	33.18E	SS	56C	BE	58C						
14	**	7	0255	5980	????	????????????		2600	1200	156	6.35N	68.07E	AN	320C	FL	42C	PS	44C				
15	**	7	0346	5980	????	????????????		2617	1063	154	16.21N	60.63E	AN	330C	FL	41C	LR	44C	PS	45C		
16	**	7	0418	5980	????	????????????		0	0	0	44.05N	26.16E	FL	44C	PS	43C						
17	**	8	0443	5980	????	????????????		0	0	0	26.95N	65.25E	AN	329C	BE	40C						
18	**	9	1847	5980	????	????????????		485	123	152	46.68N	35.38E	N2	147B	N0	111C	an	50C	BE	54C	SS	41C
19	**	10	0348	5980	????	????????????		3521	1037	146	22.78N	61.37E	SS	44C	LR	50C	FL	43C	DS	5C		
20	**	8	2112	6035	????	????????????		2377	386	107	52.76N	1.81E	BE	58C	FL	43C	LR	49C	PS	42C	AL	37C
21	**	9	1653	6035	????	????????????		0	0	0	38.24N	40.69E	N0	117B	N2	144C						
22	**	9	1851	6035	????	????????????		0	0	0	46.93N	35.29E	N2	147B	N0	111C						
23	**	10	2111	6035	????	????????????		1531	380	112	52.85N	2.53E	FE	18C	PS	39C	KI	40C	FL	40C	SS	37C
													AL	37C	BE	67C						
24	**	12	2116	6035	????	????????????		3552	741	140	30.86N	39.29E	AL	48C	PS	47C	LR	45C	FL	47C	BE	59C
25	**	6	1005	6087	CHIN	TAI		2641	814	65	37.50N	119.15E	DS	323C	WP	304C	DS	323C	WP	304C		
26	**	6	1549	6087	CHIN	TAI		2692	902	46	28.01N	116.59E	AN	287C	DS	319C	WP	295C				
27	**	6	1911	6087	CHIN	TAI		0	0	0	18.84N	113.34E	AN	285C	FE	308C						
28	**	7	1110	6087	CHIN	TAI		0	0	0	31.32N	117.96E	AN	288C	WP	298C						
29	**	7	1412	6087	CHIN	TAI		2309	695	44	32.01N	120.15E	FE	311C	al	132C	DS	320C	AN	286C	KI	326C
30	**	7	1544	6087	CHIN	TAI		2492	882	46	27.99N	119.93E	AN	283C	gi	143C	WP	294C	KI	328C		
31	**	7	1641	6087	CHIN	TAI		0	0	0	0.00N	0.00E	an	286C	fe	311C	gi	143C				
32	**	8	1006	6087	CHIN	TAI		0	0	0	28.62N	123.34E	WP	294C	AN	282C						
33	**	8	1611	6087	CHIN	TAI		0	0	0	10.02N	102.60E	DS	318C	AN	290C						
34	**	8	1841	6087	CHIN	TAI		0	0	0	0.00N	0.00E	gi	157C	wp	325C						
35	**	9	1005	6087	CHIN	TAI		0	0	0	29.13N	121.28E	WP	295C	AN	284C						
36	**	9	1616	6087	CHIN	TAI		0	0	0	10.76N	104.13E	AN	289C	DS	317C						
37	**	10	1341	6087	CHIN	TAI		2328	905	6	6.06S	94.98E	BE	20C	LR	19C	KI	328C				
38	**	10	1511	6087	CHIN	TAI		0	0	0	0.00N	0.00E	an	288C	gi	146C	ds	318C	fe	302C		
39	**	10	1611	6087	CHIN	TAI		0	0	0	0.00N	0.00E	gi	154C	an	287C	ds	315C				
40	**	11	1541	6087	CHIN	TAI		0	0	0	0.00N	0.00E	an	285C	ds	319C	gi	142C				
41	**	11	1841	6087	CHIN	TAI		11194	672	39	38.97N	128.89E	AN	284C	DS	317C	FE	311C				
42	**	12	1511	6087	CHIN	TAI		3409	202	62	56.87N	164.36E	AN	280C	DS	321C	FE	310C	gi	143C		
43	**	12	1612	6087	CHIN	TAI		13945	690	39	39.42N	125.82E	FE	312C	gi	143C	AN	287C	DS	320C		
44	**	21	1711	6087	CHIN	TAI		0	0	0	46.49N	135.34E	FE	311C	DS	321C						
45	**	25	1035	6087	CHIN	TAI		0	0	0	0.00N	0.00E	ds	317C	fe	312C	an	311C				
46	**	26	1135	6087	CHIN	TAI		1845	865	19	9.66N	93.20E	LR	22C	FE	307C	BE	16C	WP	296C	DS	314C
47	**	7	0611	6140	????	????????????		0	0	0	0.00N	0.00E	ne	73B	u2	106B						
48	**	10	0416	6140	????	????????????		1751	84	136	48.43N	28.78E	N0	118B	SS	47C	DS	15C	WP	343C	FL	42C
													PS	37C	BE	28C						
49	**	6	2153	6155	????	????????????		0	0	0	38.78N	43.45E	N0	113B	N2	140A						
50	**	9	2211	6155	????	????????????		3785	606	118	46.88N	17.46E	PS	42C	SS	46C	LR	53C	BE	52C		
51	**	11	2141	6155	????	????????????		0	0	0	26.18N	51.93E	N0	115A	N2	135B						
52	**	7	1650	6180	????	????????????		0	0	0	5.38N	104.70E	FE	308C	AN	286C						

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53=** 11 1541  6180 ???? ????????????    0    0    0  44.60N 134.28E  AN 285C  DS 320C
54=** 23 0855  6255 ???? ????????????  268   82  140  17.73N  66.64W  CA 149C  GI 142C  PS 130C  LR 153C  BE 176C  FL 121C
                                                                      ds 278C  fe 288C  AL 140C
55=** 18 0404  7015 ???? ???????????? 1824  806  165  23.59N  49.75E  AN 336C  FE   6C  PS  41C  KI  47C  WP 338C  GI  24C
                                                                      AL  41C
56=** 13 0411  7100 ???? ????????????    0    0    0  42.53N  41.90E  N0 110B  N2 140B
57=** 13 1552  7105 ???? ????????????    0    0    0  56.78N 153.31E  AN 287C  DS 324C
58=** 14 0811  7105 ???? ???????????? 3038  990   54  28.79N 119.25E  WP 295C  FE 308C  DS 319C
59=** 15 0514  7105 ???? ???????????? 2737  740  144  26.48N  47.05E  FE   4C  CA  50C  LR  54C  PS  45C  BE  56C  DS  23C
                                                                      SS  48C
60=** 16 0516  7105 ???? ???????????? 1696  719  146  31.98N  46.53E  LR  51C  PS  43C  FL  41C  WP 344C  SS  49C  DS  20C
                                                                      FE 357C  BE  54C
61=** 19 0941  7105 ???? ????????????    0    0    0  34.31N 122.80E  AN 286C  FE 310C
62=** 23 0941  7105 ???? ???????????? 2045  934   25   3.02N  90.79E  BE  33C  WP 294C  AN 304C  DS 317C  FE 306C
63=** 13 1841  7110 ???? ????????????    0    0    0  11.81S  30.48E  U2 148B  NE 153B
64=** 16 0454  7110 ???? ???????????? 1435  676  149  30.84N  42.11E  WP 345C  LR  56C  BE  63C  FL  45C  AN 345C  SS  45C
                                                                      DS  21C  FE   8C  PS  45C
65=** 17 0541  7110 ???? ???????????? 3549  729  125  42.19N  27.32E  PS  51C  LR  54C  SS  45C  DS  20C  FL  42C
66=** 17 0641  7110 ???? ???????????? 6898  304  150  17.33N  57.45E  LR  52C  PS  44C  FL  42C  N0 115A
67=** 18 0411  7110 ???? ????????????  659  130  154  31.06N  48.27E  U2 105C  AN 339C  FE   2C  WP 342C  N2 138A  N0 115A
                                                                      FE   4C  PS  42C  FL  37C  BE  47C  DS  13C  SS  41C
                                                                      AN 324C  WP 346C
68=** 18 0611  7110 ???? ???????????? 997  127  147  35.82N  44.49E  FL  42C  PS  37C  KI  42C  SS  48C  N0 115A  N2 140B
69=** 19 0253  7110 ???? ???????????? 3744  761  134  33.60N  34.88E  DS  22C  SS  52C  CA  61C  AL  45C  BE  55C
70=** 19 0347  7110 ???? ???????????? 1493  767  159  28.13N  50.46E  FL  46C  WP 336C  SS  50C  AL  43C  DS  19C  AN 336C
                                                                      PS  42C  FE   5C
71=** 19 0541  7110 ???? ???????????? 1457   48  117  47.51N  20.92E  U2 102B  BK 105B  PS  38C  SS  50C  AN   2C  FL  40C
72=** 15 0414  7125 ???? ???????????? 1476  835  159  23.46N  49.11E  BE  73C  DS  22C  FE   3C  AN 342C  FL  42C  SS  48C
                                                                      WP 327C
73=** 16 0441  7125 ???? ????????????    0    0    0  55.12N  58.38E  AN 342C  WP 340C
74=** 17 0343  7125 ???? ????????????    0    0    0  41.11N  43.53E  N0 110A  N1 130B
75=** 19 0341  7125 ???? ???????????? 1825  973    0  28.56N  55.46E  AN 334C  SS  51C  FE   2C  WP 329C  DS  18C
76=** 14 1511  7130 ???? ????????????    0    0    0   0.00N   0.00E  an 291C  fe  18C
77=** 13 1211  7150 ???? ???????????? 1293  306  127  49.89N  80.44E  DS 316C  NE  62B  gi  48C  LR  26C  PS  38C  BE  20C
                                                                      NE  59B
78=** 14 0811  7150 ???? ???????????? 3038  990   54  28.79N 119.25E  DS 319C  WP 295C  FE 308C
79=** 17 1220  7150 ???? ????????????  977  458  162  26.26N 115.20E  N0  60B  N1  70B  N2  73C  N3  80B  FE 305C  WP 303C
                                                                      AN 282C  gi 145C
80=** 18 0841  7150 ???? ????????????    0    0    0   0.00N   0.00E  an 295C  fe 330C
81=** 18 1244  7150 ???? ????????????  459  286   13  31.06S  95.40E  AL  24C  LR  23C  AN 287C  FE 306C  CA  31C  FL 148C
                                                                      BE  25C
82=** 19 0841  7150 ???? ???????????? 3176 1004   54  25.55N 119.59E  FE 308C  WP 292C  DS 313C
83=** 19 1141  7150 ???? ???????????? 2411  828   45  29.68N 120.02E  FE 306C  WP 296C  AN 287C
84=** 20 0941  7150 ???? ???????????? 3324  998   31   8.28N  89.02E  DS 317C  FE 327C  WP 291C  AN 308C
85=** 20 1241  7150 ???? ???????????? 3245  942   38  18.27N 102.91E  DS 321C  FE 305C  AN 302C  WP 291C
86=** 21 0941  7150 ???? ????????????16913 1083   31  11.09N 104.48E  FE 311C  DS 317C  AN 289C
87=** 21 1241  7150 ???? ????????????14623 1068   31   2.18S  95.27E  FE 311C  DS 317C  AN 292C
88=** 22 0819  7150 ???? ???????????? 3401 1102   46  24.93N 107.67E  DS 306C  FE 325C  WP 298C
89=** 23 0841  7150 ???? ???????????? 3080  894   38  24.57N 104.81E  DS 316C  FE 305C  WP 295C  AN 313C  gi 105C
90=** 24 1227  7150 ???? ???????????? 2884  858   41  25.28N 110.62E  FE 319C  AN 290C  WP 295C  DS 314C
91=** 26 0859  7150 ???? ???????????? 2027  730   69  35.63N 139.98E  an 316C  DS 314C  WP 299C  FE 298C
92=** 16 0811  7180 ???? ???????????? 2297  689  124  45.01N  23.16E  SS  44C  FL  43C  LR  49C  PS  48C  FE  21C
93=** 18 0511  7210 ???? ????????????    0    0    0  32.43N  47.34E  N2 138B  N0 115B
94=** 13 1704  7215 ARAB OA           1080   54  117  47.41N  24.65E  NE 100B  U2 101B  LR  46C  BE  54C  FE  15C  AN 352C
95=** 13 1943  7215 ARAB OA           1567  589  141  43.53N  36.91E  PS  42C  AL  42C  AN 351C  FE  15C  FL  40C  BE  50C
                                                                      SS  37C  LR  42C
96=** 13 2001  7215 ARAB OA           1118  261  137  34.32N  43.38E  U2 102B  WP 330C  FL  39C  WP 330C  KI  36C  LR  44C
                                                                      PS  44C  FE  25C  AL  41C  KI  37C  AL  42C  PS  43C
                                                                      AN 352C  CA  47C  FL  39C
97=** 13 2111  7215 ARAB OA           1659  765  152  30.35N  47.42E  BE  49C  WP 325C  AN 352C  AL  40C  LR  44C  PS  40C
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                                                                          FL  45C
 98=** 14 1415  7215 ARAB OA             818  523    7  21.83S  78.78E   AN 352C  AL  22C  GI  23C  PS  20C  DS 321C
 99=** 14 1705  7215 ARAB OA            1244  137  130  39.06N  40.73E   SS  52C  AN 352C  WP 332C  FE  12C  NE 101B  NE 107B
100=** 14 1911  7215 ARAB OA            1384   26  110  50.92N  12.03E   NE 107B  NE 106B  NE 100B  AN 352C  BE  52C
101=** 14 2011  7215 ARAB OA               0    0    0   0.00N   0.00E   ne  70B  n0 114B  n2 139B
102=** 15 1611  7215 ARAB OA             635  126  146  36.84N  39.35E   U2 108B  N0 120B  N2 148B  N0 115B
103=** 15 1918  7215 ARAB OA            6952 1098  134  30.14N  52.39E   FL  43C  BE  47C  SS  51C
104=** 15 2001  7215 ARAB OA            2056  172  129  39.61N  41.85E   U2 105C  NE  99B  BE  46C  FL  45C  WP 330C
105=** 16 1541  7215 ARAB OA               0    0    0  29.55N  50.80E   U2 101B  N2 135B
106=** 16 1712  7215 ARAB OA             596  159  153  41.45N  42.88E   N0 110B  N3 152B  FE   2C  AN   3C  BE  56C  WP 333C
107=** 16 1952  7215 ARAB OA            1965  920  139  33.50N  45.24E   WP 335C  AL  42C  FL  43C  LR  46C  SS  48C
108=** 17 1701  7215 ARAB OA             200   22  105  50.75N  10.90E   NE 104B  U2 102B  BK  98B  BE  53C  SS  50C  LR  46C
109=** 17 1911  7215 ARAB OA            3950  619  127  40.80N  28.94E   LR  50C  AL  45C  BE  54C  FL  45C  SS  50C  PS  43C
110=** 18 1811  7215 ARAB OA            1595  332  139  30.14N  46.17E   AL  36C  BE  53C  GI  30C  SS  51C  FE  14C  WP 332C
                                                                          GI  30C  U2 105B
111=** 18 2001  7215 ARAB OA            1932  311  136  32.62N  45.75E   U2 102B  LR  47C  GI  39C  WP 333C  AL  37C  FL  42C
                                                                          PS  43C
112=** 19 0426  7215 ARAB OA            1208  343  137  32.95N  50.91E   AN 335C  DS  21C  PS  42C  WP 336C  SS  41C  FE   5C
                                                                          AL  42C  FL  45C  U2  97B
113=** 19 0611  7215 ARAB OA            1342  198  129  39.62N  37.96E   FL  42C  WP 344C  DS  18C  PS  32C  AN 356C  BE  20C
                                                                          FL  44C  PS  33C  U2 102B
114=** 19 1741  7215 ARAB OA           10306  896  139  31.10N  44.80E   FL  43C  AL  38C  LR  48C  BE  55C
115=** 15 1625  7230 ARAB OA             916  195  147  33.52N  45.69E   N0 115B  U2 102B  N2 140B
116=** 16 1541  7240 ???? ????????????     0    0    0  55.27N 171.57E   DS 319C  FE 305C
117=** 18 1241  7240 ???? ???????????? 3163 1164   14   3.71S  99.47E   BE  17C  FE 306C  AN 288C
118=** 18 1415  7240 ???? ????????????     0    0    0  56.48N 149.81W   DS 324C  FE 305C
119=** 19 1041  7240 ???? ???????????? 2411  828   45  29.68N 120.02E   AN 287C  FE 306C  WP 296C
120=** 23 0452  9530 ???? ????????????     0    0    0   0.00N   0.00E   ds 287C  f1 138C  ps 142C
121=** 20 0741  9555 ???? ????????????     0    0    0  10.27N  63.65E   PS  40C  U2 105D
122=** 20 1541  9555 ???? ???????????? 7014  728  122  50.35N  18.43E   LR  46C  FL  40C  AL  42C
123=** 26 2025  9570 ???? ???????????? 4535  464  110  49.92N   8.69W   ps 153C  DS  40C  GI  49C  BE  60C
124=** 23 1512  9590 ???? ???????????? 6580  541  122  47.02N  13.40E   GI  38C  LR  56C  KI  43C  PS  40C  BE  55C
125=** 20 0718  9600 ???? ????????????     0    0    0  33.55N  41.98E   AN 350C  U2 105D
126=** 20 1011  9600 ???? ????????????     0    0    0  52.93S 161.97E   U2 102B  NE 102B
127=** 21 1511  9600 ???? ???????????? 1063  137   84  55.23N  31.28W   GI  55C  FL  43C  AL  47C  AL  45C  BE  52C  FL  46C
                                                                          BE  51C  PS  43C  GI  49C  LR  46C
128=** 22 0813  9600 ???? ????????????     0    0    0  33.18N  45.48E   U2 102B  N2 140B
129=** 23 1529  9600 ???? ???????????? 1899  749  141  35.41N  38.56E   GI  37C  AL  38C  DS  40C  FL  42C  WP 338C  SS  49C
                                                                          PS  43C
130=** 25 1244  9600 ???? ????????????  623  139   67  53.87N  52.31W   LR  45C  AL  42C  FE  59C  PS  43C  ss 224C
131=** 20 2041  9630 ???? ???????????? 2853  933   42  26.33N 111.40E   AN 292C  WP 295C  FE 311C
132=** 23 1311  9630 ???? ???????????? 2949  935   42  30.66N 108.81E   AN 296C  DS 323C  WP 300C
133=** 24 2043  9630 ???? ????????????     0    0    0  33.51N 114.58E   AN 292C  WP 301C
134=** 25 1318  9630 ???? ????????????     0    0    0  31.18N 117.38E   DS 320C  WP 298C
135=** 24 1218  9650 ???? ????????????     0    0    0   4.27S  98.56E   DS 310C  KI 323C
136=** 22 0541  9655 ???? ????????????  467   94  149  13.53N  69.25W   GI 132C  PS 141C  FL 138C  BE 179C  AL 150C  LR 164C
                                                                          ki 292C
137=** 21 0141  9685 ???? ????????????     0    0    0   0.00N   0.00E   ds 329C  an 311C
138=** 21 1236  9685 ???? ???????????? 1682  138  137  34.33N  45.09E   NE 106B  NE 106B  NE 107B  DS  30C  LR  41C  BE  55C
                                                                          N0 115B
139=** 21 1914  9685 ???? ????????????  670  117   89  50.91N  29.59W   SS  41C  LR  55C  FL  40C  PS  53C  AL  37C  BE  63C
                                                                          FL  53C  AL  40C  BE  66C  FL  44C  BE  63C  PS  53C
                                                                          KI  51C  SS  37C  LR  55C
140=** 22 0047  9685 ???? ????????????     0    0    0   0.00N   0.00E   ss  46C  ds 346C  al 162C  ps 147C  wp 358C  f1 156C
                                                                          lr 161C
141=** 22 1511  9685 ???? ???????????? 1522  454  131  45.24N  26.53E   LR  51C  SS  37C  GI  36C  AN 354C  PS  32C  FL  37C
                                                                          PS  46C  FL  44C  BE  55C  KI  42C  GI  40C  DS  35C
142=** 22 2149  9685 ???? ????????????     0    0    0  30.17S  71.98E   AN 299C  DS 313C
143=** 23 0111  9685 ???? ????????????  647   92  175  69.65N 151.27W   AN 357C  al 167C  wp 315C  KI 339C  DS 341C
144=** 23 1612  9685 ???? ???????????? 1865  406   96  63.73N  37.40W   FE  36C  DS  40C  GI  33C
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145=**	23	2341	9685	????	????????????	6886	885	143	56.06S	33.10W	BE 165C	LR 151C	PS 153C	AL 152C	wp 315C	GI 149C
146=**	24	0111	9685	????	????????????	2221	433	38	50.63N	110.77E	KI 336C	WP 314C	al 159C	FE 342C	DS 344C	AN 301C
											DS 330C	FE 342C	AN 301C	an 351C		
147=**	24	1242	9685	????	????????????	0	0	0	.54S	52.54E	WP 301C	DS 32C				
148=**	24	1310	9685	????	????????????	84	42	31	47.82N	68.34W	AL 25C	DS 37C	BE 16C	SS 42C	FL 43C	FL 43C
											DS 32C	AL 34C	PS 38C	SS 42C	LR 49C	
149=**	24	1824	9685	????	????????????	2137	397	104	47.93N	6.84W	LR 56C	BE 61C	PS 53C	SS 44C		
150=**	25	1057	9685	????	????????????	0	0	0	6.70S	94.95E	DS 312C	LR 15C				
151=**	25	1546	9685	????	????????????	1400	323	89	55.97N	19.71W	FL 37C	fe 204C	PS 35C	ds 320C	SS 33C	KI 44C
											GI 35C	LR 54C				
152=**	25	1911	9685	????	????????????	3078	192	151	23.69N	53.59E	N1 128B	NO 115A	NO 115B	NO 115B		
153=**	26	0025	9685	????	????????????	0	0	0	0.00N	0.00E	fe 330C	ds 334C				
154=**	21	0943	9690	????	????????????	2426	747	44	33.25N	117.56E	DS 318C	WP 300C	AN 295C	FE 305C		
155=**	23	1011	9690	????	????????????	0	0	0	37.51N	133.39E	DS 315C	WP 302C				
156=**	23	1324	9690	????	????????????	0	0	0	36.29N	123.20E	AN 287C	WP 302C				
157=**	24	1215	9690	????	????????????	0	0	0	35.46N	130.49E	WP 300C	DS 315C				
158=**	25	1119	9690	????	????????????	0	0	0	51.65N	5.12E	LR 48C	DS 35C				
159=**	25	1211	9690	????	????????????	4824	470	114	50.08N	5.57E	PS 47C	DS 36C	FL 44C	BE 54C	LR 50C	
160=**	25	1317	9690	????	????????????	655	11	135	27.44S	82.11E	KI 44C	ds 38C	KI 322C	DS 318C		
161=**	20	0442	9750	????	????????????	1730	222	87	43.13S	88.22E	ds 273C	wp 56C	AN 272C	BE 105C	CA 102C	AL 92C
162=**	22	0542	9775	????	????????????	470	94	149	13.47N	69.29W	AL 150C	ds 288C	BE 179C	GI 132C	FL 138C	PS 142C
											ki 292C	LR 164C				
163=**	6	1419	11705	????	????????????	1671	416	131	49.91N	26.36E	LR 44C	CA 43C	AL 42C	BE 44C	AN 1C	AL 42C
											BE 45C	CA 45C	LR 43C			
164=**	6	1417	11715	????	????????????	6811	279	90	61.16N	14.20W	CA 41C	BE 42C	BE 43C			
165=**	7	1241	11745	????	????????????	6250	1038	126	39.56N	38.62E	FL 46C	PS 38C	SS 47C			
166=**	8	1241	11745	????	????????????	206	64	133	45.87N	37.45E	NE 98B	LR 48C	AL 47C	PS 46C	AN 350C	SS 44C
											BE 55C	FL 45C	U2 68C	NE 105B	NO 105B	N1 130B
											N2 140B					
167=**	8	1312	11745	????	????????????	0	0	0	47.08N	29.01E	NO 120B	NE 99B				
168=**	9	1416	11745	????	????????????	9985	734	123	44.84N	20.15E	KI 43C	FL 48C	PS 41C	LR 48C		
169=**	7	1753	11750	????	????????????	3841	590	124	37.50N	22.64E	PS 45C	SS 55C	BE 59C	CA 58C	LR 57C	FL 51C
170=**	6	1641	11750	????	????????????	11693	756	128	35.79N	26.20E	LR 55C	BE 59C	PS 50C	FL 51C		
171=**	6	1742	11750	????	????????????	4065	334	100	51.46N	15.37W	BE 59C	FL 44C	CA 56C			
172=**	7	1254	11790	????	????????????	0	0	0	0.00N	0.00E	be 61C	lr 15C	ss 13C			
173=**	8	1249	11790	????	????????????	1890	224	132	36.83N	38.13E	PS 44C	FL 41C	SS 42C	AN 350C	U2 105B	
174=**	12	1220	11790	????	????????????	1113	222	148	30.52N	47.01E	U2 105B	NO 115B	N2 140B			
175=**	7	0644	11790	????	????????????	1842	257	160	19.91N	54.01E	NO 115B	U2 110C	N2 135A			
176=**	12	1448	11885	????	????????????	2956	504	121	49.43N	20.08E	GI 35C	FL 41C	LR 47C	PS 41C	KI 36C	SS 42C
											BE 50C					
177=**	8	0919	11905	????	????????????	0	0	0	30.80N	118.82E	BE 353C	AN 287C				
178=**	9	1711	11950	????	????????????	449	42	59	42.98S	93.21E	ki 32C	AL 122C	CA 95C	gi 76C	ds 56C	PS 168C
											BE 85C					
179=**	9	2041	11950	????	????????????	407	25	58	42.83S	93.55E	ki 32C	AL 122C	CA 93C	FL 165C	PS 171C	ds 56C
											BE 87C	gi 76C	SS 150C	wp 52C		
180=**	11	2011	11955	????	????????????	1184	644	61	22.35S	97.68E	FE 294C	gi 138C	BE 31C	DS 284C	KI 287C	
181=**	7	1941	11975	????	????????????	2279	415	118	36.64N	4.23E	AL 61C	BE 71C	CA 68C	FL 58C	GI 53C	LR 65C
											PS 55C	SS 58C				
182=**	8	0611	11975	????	????????????	2093	1238	141	29.00N	42.19E	FL 57C	SS 50C	AN 348C			
183=**	8	0811	11975	????	????????????	548	219	159	23.83S	80.59E	DS 330C	KI 64C	SS 48C	BE 57C	FL 60C	
184=**	8	0945	11975	????	????????????	1835	561	126	31.54N	14.49E	FL 60C	BE 70C	PS 60C	AN 12C	SS 60C	AL 58C
											CA 67C					
185=**	8	2042	11975	????	????????????	1590	299	90	47.60N	35.14W	PS 58C	be 31C	FL 45C	AL 62C		
186=**	9	0641	11975	????	????????????	0	0	0	40.99N	30.17W	SS 46C	FL 57C				
187=**	10	1941	11975	????	????????????	3890	632	122	29.08N	18.43E	FL 61C	KI 53C	BE 69C	LR 64C	PS 59C	SS 63C
188=**	11	2015	11975	????	????????????	2489	760	133	30.45N	16.99E	LR 65C	PS 56C	AN 11C	BE 70C		
189=**	12	2056	11975	????	????????????	2498	456	110	41.91N	.72E	SS 51C	LR 63C	BE 65C	FL 56C	PS 53C	
190=**	6	1941	11975	????	????????????	8082	550	126	33.05N	9.35E	AL 62C	BE 71C	GI 54C	KI 54C	LR 65C	PS 60C
191=**	14	1733	15084	ARAB	OA	2704	76	116	47.79N	27.78E	AL 40C	PS 40C	LR 42C	FL 43C	BE 49C	NE 98B
192=**	13	1550	15210	????	????????????	2730	617	114	51.62N	11.92E	PS 42C	GI 40C	LR 44C	SS 42C		

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193=** 14 1518  7140 ARAB BBC CYPRUS      0    0    0  32.01N 119.73E  AN 287C  DS 319C
194=** 20 1611  9625 ARAB BBC CYPRUS   1164  119  134  38.96N  41.31E  AL  40C  PS  43C  BE  53C  LR  48C  N0 115B  NE 103B
                                                                       NE 104B
195=** 22 1515  9625 ARAB BBC CYPRUS    941   82   67  54.60N  45.36W  PS  41C  BE  50C  LR  44C  FL  40C  DS  42C  LR  46C
                                                                       AL  27C  BE  50C
196=** 24 1511  9625 ARAB BBC CYPRUS   3717  103  119  47.33N  18.22E  KI  43C  PS  40C  DS  35C  BE  55C  U2 105C  AL  36C
197=** 25 1311  9625 ARAB BBC CYPRUS   1160  637   54  46.01S  83.30E  FE 243C  PS 135C  N0 115B
198=** 15 1449 15340 ARM  RL  L3       1281   90   62  50.02N  55.87W  BE  54C  FL  39C  PS  36C
199=** 22 1455 17760 ARM  RL  L4      18085  893  141  28.12N  44.93E  LR  48C  AL  41C  CA  51C  BE  53C
200=** 23 1441 17760 ARM  RL  L4       3575  561  117  49.28N  17.34E  LR  46C  KI  38C  FL  43C  BE  51C  SS  43C
201=** 13 0410  7180 AZ   RL  L2       2602  946  154  25.25N  59.58E  DS   3C  FE   0C  AL  38C  FL  48C  SS  43C
202=** 18 0435  7180 AZ   RL  L2       4476  900   11  49.27N  53.49E  FE   6C  AN 340C  WP 343C  ds 339C
203=**  6 0101 11875 AZ   RL  L7+L8      0    0    0  46.17N  21.73E  AN   6C  BE  53C
204=**  7 0441  6140 BULG BBC WOOF      1593   86   97  53.91N  33.85E  NE  73B  BE  32C  PS  40C  SS  44C
205=** 16 2120  7165 BULG RFE G3B        0    0    0  44.89N  25.72E  N0 130B  N1 155B
206=** 20 1805  9555 BULG RFE G1       10842  187  129  39.30N  35.77E  PS  43C  LR  47C  BE  52C  FL  48C  U2 103B  ne  67C
207=** 11 2038 11825 BULG RFE G5       1923  855  138  44.77N  26.60E  AN   2C  FL  40C  BE  54C
208=** 13 0641  7180 CZEC RFE B4          0    0    0   0.00N   0.00E  ne  83B  u2  99B
209=** 18 0605  7180 CZEC RFE B4       2917  776  152   1.01N  85.42E  AL  12C  LR  38C  FL  42C  SS  39C  BE  28C
210=** 16 2115  7200 CZEC RFE G2B        0    0    0   0.00N   0.00E  be  61C  ps  39C
211=** 14 0457  7215 ARAB OA           1905  850  146  37.36N  49.14E  WP 340C  FL  44C  PS  43C  AL  18C  SS  48C  DS  20C
212=** 16 0555  7215 ARAB OA           2647  420  106  50.89N    .92E  FL  43C  LR  53C  PS  43C  SS  42C  BE  55C
213=** 13 2104  7285 CZEC DW           1021   42   98  51.85N  11.59E  NE  93B  FE  25C  BE  52C  AL  39C  FL  40C  LR  46C
                                                                       PS  50C  GI  40C
214=** 23 0255  9530 EST  VOA TAN 3    1091  200  160   9.05N  66.63W  ds 290C  PS 141C  BE 175C  AL 151C  LR 160C  ss  35C
215=** 20 1701  9625 EST  RFE B4       2722  162   87  53.37S 169.20E  U2 106B  NE 103B  NE 103B  NE 103B
216=**  6 1541 11865 EST  VOA WOF 4       0    0    0   0.00N   0.00E  lr  47C  be  41C
217=** 12 1757 11970 EST  RFE P5       2941  511  119  50.43N  18.20E  BE  49C  LR  45C  PS  41C  SS  47C  FL  34C  GI  40C
218=** 18 1736  7255 GEOR RL  L4        924  341  151  35.93S  77.34E  GI  35C  AN 286C  FE 306C
219=** 10 1735 11875 GEOR RL  L7+L8     3137  573  116  49.50N  15.17E  LR  50C  PS  44C  FL  40C  AL  42C  SS  43C
220=** 13 1737  7115 HUNG RFE G3       1017  387   55  49.07N 148.27E  FE 304C  WP 317C  AN 280C
221=** 11 1805 11895 HUNG RFE G5          0    0    0  22.93S  94.35E  AN 281C  DS 286C
222=** 13 0443  7155 LAT  RFE P2       2838 1206  158  36.34N  54.63E  FE   6C  DS   8C  SS  46C
223=** 13 2040  7155 LITH RFE P4          0    0    0   2.83N  55.91E  WP 302C  KI  44C
224=** 24 1644  9555 LITH RFE P4       1285  503  134  63.93N   3.66E  GI  31C  AL  34C  FE  22C  ds 317C  AN  15C
225=**  9 1441  5970 POLI RFE B6          0    0    0  56.62N  63.97W  BE  13C  GI  43C
226=** 10 1405  5970 POLI RFE B6        527  117   19  65.96N  65.58W  LR  15C  DS  21C  CA   0C  AL  15C  BE  13C
227=**  8 0501  6140 POLI BBC WOOF      949  376  155  11.94S  80.53E  U2 104B  NE 102B  AL  41C  BE  42C  AN 357C  FL  45C
                                                                       KI  32C  DS 320C  LR  30C  PS  40C  FL  42C  LR  30C
                                                                       PS  40C
228=**  9 0512  6140 POLI BBC WOOF      4833  841  113  48.06N  19.80E  FL  46C  PS  40C  SS  43C
229=** 10 0501  6140 POLI BBC WOOF      1707  147  131  37.98N  40.45E  U2 104B  PS  37C  DS  17C  LR  47C  NE 105B  FL  42C
                                                                       SS  47C  BE  32C  WP 342C  BE  34C  LR  54C  CA  37C
                                                                       PS  38C  SS  47C  FL  42C
230=** 11 0512  6140 POLI BBC WOOF      6287  127  133  49.27N  30.32E  DS  22C  BE  43C  PS  40C  N0 113C
231=**  6 0503  6140 POLI BBC WOOF       652  101  137  42.12N  37.34E  N0 116B  U2  97B  DS  36C  AN 354C  FL  44C  SS  42C
                                                                       AN 354C  DS  36C  N0 116B
232=** 19 0511  7130 POLI VOA KAV 1     1680  989  165  44.04N  35.08E  AN   5C  DS  11C  SS  50C  WP 343C
233=** 13 1905  7145 POLI RFE G2           0    0    0  53.42N 157.98E  WP 325C  AN 278C
234=** 22 0511  9650 POLI VOA TAN 1      459   86  148  13.62N  69.12W  an 349C  AL 151C  PS 142C  GI 128C  FL 137C  GI 135C
                                                                       PS 140C  LR 164C  BE 177C
235=** 23 0515  9650 POLI VOA TAN 1        0    0    0   0.00N   0.00E  ds 289C  ps 142C  f1 138C  ss  40C
236=** 24 0505  9650 POLI VOA TAN 1        0    0    0   0.00N   0.00E  ds 287C  f1 141C
237=** 21 0911  9705 POLI RFE B2           0    0    0  52.49N   6.11E  NE  68B  U2  80B
238=** 21 1232  9705 POLI RFE B2        1401   32   87  55.13N  26.64E  NE  69B  NE  69B  U2  68B  NE  69B  NE  68B
239=** 22 1001  9705 POLI RFE B2           0    0    0  53.74N  48.79E  N3 135B  U2  67B
240=** 24 1001  9705 POLI RFE B2           0    0    0  53.69N  11.97E  U2  72B  NE  68B
241=**  9 2011 11710 POLI VOA TAN 5     2805 1189  160  11.86N  68.91E  DS  13C  GI   5C  SS  58C
242=** 11 1935 11710 POLI VOA TAN 5      548  112   88  58.62N  39.47E  PS  20C  KI  15C  DS   8C  AL  16C  LR  24C  GI  16C
                                                                       FL  20C  SS  36C  AN  32C  BE  25C  NE  59B
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243=** 6 2050 11725 POLI RFE G6      1296  397   36  78.23N  88.56E  AN 345C  LR  10C  FE 344C
244=** 6 2042 11750 POLI VOA TAN 2      0    0    0  41.07N  13.09E  FL  51C  BE  62C
245=** 6 1905 11750 POLI VOA TAN 2      0    0    0   0.00N   0.00E  be  59C  lr  55C  ps  46C
246=** 16 0901 21665 POLI RFE G11+G12   0    0    0  53.05S 171.79E  NE 101C  U2 105C
247=** 11 0415  6140 ROMA BBC WOOF    6115  309  145  33.91N  47.46E  DS  23C  PS  48C  FL  41C  N0 113B
248=** 12 0414  6140 ROMA BBC WOOF    2215  103  143  38.70N  41.99E  N0 115A  N0 115B  WP 342C  AL  14C  FL  42C  DS  24C
249=** 8 1833  6095 RUSS RL  L3         0    0    0  52.18N  45.29E  NE  74B  BE  37C
250=** 6 0707  6105 RUSS RL  L11     2012  827  143  46.90N  24.28E  AN   4C  BE  51C  DS  30C
251=** 9 0450  6140 RUSS BBC WOOF       0    0    0  20.81N  49.18E  N3 150B  N2 140B
252=** 12 0349  6140 RUSS BBC WOOF      0    0    0  33.91N  47.75E  FL  42C  DS  20C
253=** 6 0447  6140 RUSS BBC WOOF    1577  609  134  46.90N  29.32E  AN 354C  BE  41C  DS  36C  PS  45C  FL  44C  SS  37C
                                                                    KI  45C
254=** 10 0411  6150 RUSS VOA MUN 4  3076  766  154  18.17N  60.12E  DS   1C  BE  32C  KI  48C  PS  36C  LR  42C  FE  14C
                                                                    FL  45C
255=** 13 0431  7105 RUSS VOA MUN 2   653  144  149  42.76N  41.75E  N0 110B  N2 140B  PS  18C  FL  49C  AN 354C  SS  46C
                                                                    FE  11C
256=** 14 0242  7105 RUSS VOA MUN 2  3718  819  127  40.31N  31.94E  DS  22C  FL  48C  SS  45C  BE  57C
257=** 14 0405  7105 RUSS VOA MUN 2   985  161   97  54.91N  38.55E  NE  68C  FL  48C  DS  11C  DS  20C  SS  47C  WP 339C
                                                                    PS  20C  SS  46C
258=** 15 0350  7105 RUSS VOA MUN 2  1460   73  163  53.06N  22.49E  N1 155B  WP 337C  SS  40C  FE   0C  DS  22C
259=** 17 0334  7105 RUSS VOA MUN 2     0    0    0  52.67S 175.42E  U2 105C  NE  98B
260=** 18 0427  7105 RUSS VOA MUN 2     0    0    0  32.43N  47.34E  N2 138A  N0 115A
261=** 16 2235  7170 RUSS VOA KAV 5     0    0    0   0.00N   0.00E  fl  39C  be  33C  ps  42C
262=** 19 0518  7180 RUSS RL  L2     1475  730  154  56.31N  30.44E  DS   8C  PS  30C  FL  40C  AN   7C  WP 344C
263=** 19 1205  7220 RUSS RL  L5+L6  1950  211   63  70.38N  30.90W  AL  24C  BE  24C  CA  20C  PS  26C  FL  21C  LR  25C
264=** 15 0411  7270 RUSS VOA KAV 9  2093 1011  175  45.95N  50.71E  FE   3C  SS  39C  AN 346C
265=** 24 0240  9555 RUSS RL  G1B    1700  585   57  49.29N 132.81E  FE 310C  WP 315C  DS 322C  DS 324C  FE 321C
266=** 26 0243  9555 RUSS RL  G1B    1459  634   74  53.19N 143.99E  WP 321C  FE 312C  DS 325C
267=** 21 1642  9600 RUSS BBC WOOF      0    0    0  56.18N  25.44W  PS  42C  BE  51C
268=** 24 1710  9600 RUSS BBC WOOF    1338  591  144  13.65S  84.61E  AN 295C  PS  43C  SS  40C  AL  41C  BE  53C  FL  46C
269=** 26 1710  9690 RUSS VOA KAV 7  1399 1061    7   5.98S  86.48E  SS  40C  DS 319C  GI  27C
270=** 21 0418  9750 RUSS RL  L3    10474  818  131   9.07S   3.41E  ds   5C  BE 107C  CA 106C  WP  57C
271=** 25 2338  9750 RUSS RL  L3    21467 1143  124  28.78S  31.17E  BE 105C  wp 322C  LR 103C  AL  97C
272=** 20 1750  9770 RUSS DW        3717  413  105  59.67N    .74E  LR  45C  PS  34C  BE  42C  GI  33C
273=** 11 1747 11740 RUSS VOA KAV 8     0    0    0  35.24N  65.97E  GI  13C  SS  40C
274=** 6 1746 11740 RUSS VOA KAV 8    4721  370  112  48.98N    .24E  FL  44C  CA  56C  LR  54C  AL  47C  PS  49C  BE  59C
275=** 9 2012 11770 RUSS RL  B3      4404  745  117  36.85N  18.61E  PS  52C  SS  56C  FL  52C  LR  58C
276=** 6 0040 11770 RUSS RL  G7         0    0    0  49.25N  17.35E  FL  42C  SS  43C
277=** 6 1635 11780 RUSS BBC WOOF       0    0    0   0.00N   0.00E  be  46C  lr  46C
278=** 8 2031 11845 RUSS BBC CYPRUS     0    0    0  52.60N   8.58E  U2  80C  NE  79B
279=** 7 1340 11865 RUSS VOA WOF 4   4329  823  127  53.73N  35.64E  FL  32C  KI  29C  PS  28C  SS  37C
280=** 6 1805 11865 RUSS DW          1503  523  136  44.29N  34.63E  BE  49C  FL  41C  SS  42C  AN   2C  FE   2C  LR  46C
                                                                    BE  49C  CA  48C  FL  39C
281=** 9 1110 11875 RUSS RL  L7+L8    1031  644  137  67.47N  12.80E  AN  11C  SS  39C  AL  18C
282=** 9 1351 11875 RUSS RL  L7+L8    1554  556  131  51.89N  23.55E  PS  36C  AN   3C  BE  45C  DS  33C  FL  39C  LR  42C
283=** 12 1150 11875 RUSS RL  L7+L8   3269  155  146  31.57S  93.43E  BE  51C  PS  42C  LR  48C
284=** 8 1441 11885 RUSS RL  B4      3168  638  136  42.99N  38.30E  CA  37C  KI  37C  GI  31C  DS  25C  SS  48C  BE  46C
                                                                    FL  40C
285=** 10 1255 11885 RUSS RL  B4     11515  792  136  49.92N  39.72E  AL  32C  LR  39C  BE  40C
286=** 10 1545 11885 RUSS RL  HB      2610  978  155  47.20N  24.06E  KI  34C  AN   4C  DS  31C
287=** 12 1551 11885 RUSS RL  HB      4873  532  112  54.36N    .72E  LR  45C  PS  43C  KI  38C  GI  40C
288=** 6 2238 11915 RUSS RL  P6      2471  646  173  17.99S  68.35E  BE  58C  DS 355C  FE   6C
289=** 11 1711 11935 RUSS RL  P3      1011  292  107  46.54N   4.56W  SS  43C  BE  67C  WP  19C  AN  15C  FL  37C  PS  55C
                                                                    PS  54C  LR  59C  SS  50C  BE  65C  FL  42C
290=** 9 0737 11970 RUSS RL  L7+L8    1538  781  140  51.19N  37.94E  BE  46C  SS  28C  FL  37C  AN 352C
291=** 9 0841 11970 RUSS RL  P5      2228  985  160  45.71N  44.63E  AN 351C  FL  44C  AL  24C
292=** 9 0938 11970 RUSS RL  P5         0    0    0  46.91N  24.72E  U2  98C  NE 105B
293=** 9 1336 11970 RUSS RL  P5         0    0    0  54.81N  17.51E  AN   8C  LR  41C
294=** 9 2041 11970 RUSS RL  P5      1421  669  146  11.40S  69.95E  CA  70C  DS   1C  PS  56C  SS  52C  BE  74C  FL  63C
295=** 10 1451 11970 RUSS RL  P5     2988  557  122  53.11N  23.87E  KI  37C  GI  27C  FL  38C  SS  37C  BE  44C  PS  39C
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296=**	14	1646	15340	RUSS	RL	L3	4690	553	115	53.09N	9.45E	BE	48C	FL	42C	PS	44C	DS	32C					
297=**	17	1441	15445	RUSS	RL	P4	10106	899	138	31.33N	42.59E	PS	45C	BE	52C	AL	42C	FL	47C					
298=**	18	1449	15445	RUSS	RL	P4	1952	673	141	46.25N	26.32E	BE	50C	PS	41C	AN	2C	DS	32C	GI	35C			
299=**	23	0257	9725	TB	RL	P5	0	0	0	34.81N	79.50E	WP	315C	FE	342C									
300=**	7	0140	11885	TI	RL	P4	3132	850	36	41.68N	97.12E	AN	312C	ds	273C	FE	328C	WP	313C					
301=**	9	0516	6150	TURK	BBC	WOOF	0	0	0	53.34N	7.72E	FL	40C	SS	39C									
302=**	11	0523	6150	TURK	BBC	WOOF	0	0	0	38.78N	43.45E	N0	113B	N2	140B									
303=**	22	0508	9625	UKR	RL	G13+G14	0	0	0	35.55N	43.45E	AN	349C	WP	340C									
304=**	6	1945	11885	UKR	RL	G4B	1601	520	53	50.71N	132.24E	DS	328C	WP	317C	AN	292C	fe	11C					
305=**	13	1804	15380	UKR	RL	G4B	3081	23	103	51.89N	8.01E	NE	100B	LR	47C	BE	52C	FL	43C					
306=**	9	1404	11760	UZBE	VOA	KAV 3	0	0	0	0.00N	0.00E	ne	81B	u2	90C									
307=**	6	1431	11760	UZBE	VOA	KAV 3	0	0	0	52.53N	9.32E	U2	81B	NE	82B									
308=**	7	1735	11700	YIDD	IBA		4874	182	89	50.99N	32.21W	CA	59C	BE	62C	LR	54C							
309=1D	12	0648	5974	????	????????????		0	0	0	51.65N	31.38E	N0	105B	N2	150A									
310=1D	9	0601	5955	POLI	VOA	KAV 9	0	0	0	0.00N	0.00E	u2	87B	ne	68B	n2	153B							
311=1D	8	0635	5955	POLI	VOA	KAV 9	0	0	0	57.36N	26.74E	AN	2C	BE	40C									
312=1D	9	0611	5970	POLI	RFE	B6	15296	1132	148	13.64N	68.75E	FL	41C	LR	37C	PS	34C							
313=1D	10	0642	5970	POLI	RFE	B6	4562	468	149	18.21S	93.57E	FL	36C	BE	30C	LR	30C							
314=1D	10	1406	5970	POLI	RFE	B6	0	0	0	58.95N	72.80W	AL	22C	DS	31C									
315=1D	11	0611	5970	POLI	RFE	B6	0	0	0	0.00N	0.00E	f1	41C	ps	32C	be	19C							
316=1D	8	0715	5970	POLI	RFE	B6	784	44	83	54.09N	17.51E	U2	73B	FL	32C	LR	37C	BE	42C	NE	70B			
317=1D	8	2203	6060	POLI	VOA	WOF 2	1265	67	84	54.89N	23.18E	NE	69B	PS	38C	BE	42C							
318=1D	6	0501	6140	POLI	BBC	WOOF	12087	319	118	45.25S	151.51E	BK	90A	NE	85B	U2	83B							
319=1D	6	0632	6160	POLI	VOA	WOF 1	0	0	0	60.99N	31.89E	N2	134B	N3	159B									
320=1D	13	0533	7130	POLI	VOA	KAV 1	0	0	0	0.00N	0.00E	u2	85B	ne	78B									
321=1D	15	0501	7130	POLI	VOA	KAV 1	0	0	0	55.32N	19.02E	N0	110B	U2	66A									
322=1D	15	0635	7130	POLI	VOA	KAV 1	2086	944	163	39.39N	34.93E	LR	47C	WP	349C	AN	356C	DS	27C					
323=1D	25	0905	9705	POLI	RFE	B2	3419	40	87	52.67N	11.08E	NE	81B	SS	40C	FL	40C							
324=1G	19	0549	7120	????	????????????		0	0	0	10.73S	25.29E	AN	6C	WP	343C									
325=1G	12	0632	5970	POLI	RFE	B6	0	0	0	40.32S	158.70E	U2	60C	NE	67B									
326=1G	6	2241	6060	POLI	VOA	WOF 2	0	0	0	5.61N	84.98E	AL	12C	BE	32C									
327=1G	13	0534	7130	POLI	VOA	KAV 1	1412	158	119	45.75N	50.68E	NE	84B	FE	1C	WP	344C	NE	84B					
328=1G	15	0510	7130	POLI	VOA	KAV 1	3928	820	10	50.07N	46.62E	FE	6C	WP	343C	AN	350C	WP	343C					
329=1G	15	0632	7130	POLI	VOA	KAV 1	1610	71	96	56.54N	48.50E	BK	61A	NE	63B	WP	345C							
330=1G	16	0605	7130	POLI	VOA	KAV 1	0	0	0	55.09N	52.28E	WP	343C	N0	78B									
331=1G	17	0631	7130	POLI	VOA	KAV 1	0	0	0	57.92N	50.92E	U2	58B	WP	345C									
332=1G	19	0641	7130	POLI	VOA	KAV 1	0	0	0	56.30N	26.80E	U2	64B	AN	2C									
333=1G	13	0640	7190	POLI	RFE	B3	2306	1170	143	44.56N	38.84E	PS	37C	FL	38C	WP	347C							
334=1G	13	0731	7190	POLI	RFE	B3	75	47	113	58.10N	32.62E	N3	165C	BK	57B	ne	79B	N0	76C	U2	60B	N1	120B	
												ne	70B	ne	70B									
335=1G	13	1205	7190	POLI	RFE	B3	134	55	97	55.97N	34.96E	U2	61B	NE	68B	N2	138C	NE	67B					
336=1G	14	0801	7190	POLI	RFE	B3	0	0	0	55.96N	32.02E	N0	90C	NE	66B									
337=1G	16	0710	7190	POLI	RFE	B3	0	0	0	75.44N	16.30E	AN	5C	FE	12C									
338=1G	16	0811	7190	POLI	RFE	B3	643	71	100	59.09N	35.75E	U2	60C	FE	20C	N0	75B							
339=1G	17	0731	7190	POLI	RFE	B3	78	34	154	55.92N	33.28E	U2	60C	N2	140A	N3	166B	NE	70B	AN	9C	WP	346C	
340=1G	18	1531	7190	POLI	RFE	B3	380	66	106	55.10N	37.74E	U2	63C	N0	88B	NE	70B							
341=1G	20	1304	9705	POLI	RFE	B2	1058	69	84	55.21N	25.35E	NE	68B	FL	37C	AN	2C							
342=1G	21	1237	9705	POLI	RFE	B2	0	0	0	54.40N	44.24E	N0	85B	NE	69B									
343=1G	11	0901	11725	POLI	RFE	B1	926	65	84	57.82N	32.50E	U2	59B	NE	60B	AN	0C							
344=1G	11	1335	11725	POLI	RFE	B1	0	0	0	44.53N	89.79E	NE	62B	U2	59B									
345=1G	6	1216	11725	POLI	RFE	B1	0	0	0	59.20N	37.39E	N0	75B	N1	110B									
346=1G	8	1231	11725	POLI	RFE	B1	1057	107	109	56.09N	57.29E	N0	73B	NE	62B	NE	61B	NE	62B					
347=1G	7	1101	11725	POLI	RFE	B1	0	0	0	0.00N	0.00E	n0	80B	ss	33C									
348=1G	15	1110	15145	POLI	RFE	G1	0	0	0	57.34N	23.48E	AN	4C	NE	57B									
349=4D	9	2136	6125	POLI	BBC	WOOF	0	0	0	52.99N	7.52W	FL	42C	SS	38C									
350=4F	15	1123	15240	????	????????????		0	0	0	31.40N	76.35E	N0	88B	N2	106C									
351=4F	15	0824	15250	????	????????????		0	0	0	45.82N	63.21E	N0	85B	N1	102B									
352=4F	15	1125	15250	????	????????????		0	0	0	0.00N	0.00E	n0	87B	n2	283B									
353=4F	17	1241	15250	????	????????????		0	0	0	28.69N	78.68E	N0	88A	N2	105A									
354=4F	17	1241	15260	????	????????????		0	0	0	28.69N	78.68E	N0	88A	N2	105A									

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355=4F 23 2231  9695 HUNG RFE G13+G14      0    0    0  48.59N  57.52E  N1 105B  NE  75B
356=4F 11 2241  6060 POLI VOA WOF 2        0    0    0  28.57N  82.37E  U2  77B  N0  85B
357=4F  7 2225  6060 POLI VOA WOF 2      545   77  114  50.01N  43.78E  U2  75B  N0  95B  BK  81B  NE  78B  FL  47C  LR  29C
358=4F  9 2134  6125 POLI BBC WOOF      1167   82   87  56.60N  33.09E  NE  64B  PS  41C  BE  21C  FL  42C
359=4F 11 2131  6125 POLI BBC WOOF       727  176  137  43.47N  64.68E  U2  78B  NE  78B  N0  85B  N2 110B  AN 340C
360=4F  7 2131  6125 POLI BBC WOOF       145   22   83  52.73N  13.22E  BK  80B  NE  76B  NE  76B  LR  29C  U2  75B  NE  81B
361=4F 12 2131  6160 POLI VOA KAV 4      484  103  102  54.32N  28.07E  U2  71C  N0 100D  FL  40C  SS  37C
362=4F 20 2244  9645 POLI VOA TAN 4      333   48   99  54.16N  33.47E  U2  74B  N0  93C  NE  70B  NE  73B
363=4F 21 2217  9645 POLI VOA TAN 4      601   30   70  61.22N  16.17E  N0  60B  u2  81B  N0  58B  BE  34C  KI  13C  AL  30C
                                                                       PS  32C  SS  35C  FL  25C  N0  65B  LR  27C
364=4F 25 2201  9645 POLI VOA TAN 4      897  163  151  37.50N  70.45E  U2  80B  NE  80B  N2 108A  N3 121B
365=4F 25 2305  9645 POLI VOA TAN 4        0    0    0  51.20N  60.60E  N2 108A  N3 121B
366=4F 20 1950  9650 POLI VOA TAN 4        0    0    0  53.31N  12.06E  U2  75B  NE  73B
367=4F 20 2116  9650 POLI VOA TAN 4     2095  188  126  45.67N  63.45E  N0  85B  NE  76B  NE  76B
368=4F 21 0601  9650 POLI VOA TAN 1        0    0    0  52.70N   8.80E  U2  79B  NE  77B
369=4F 20 1510  9660 POLI BBC WOOF      15050 1124  148  12.16N  68.96E  BE  42C  FL  42C  PS  36C
370=4F 24 1501  9660 POLI BBC WOOF       1468  230  130  42.46N  67.15E  U2  76B  NE  76B  N0  86B  AL  24C  WP 322C
371=4F 26 1505  9660 POLI BBC WOOF       1136   99   98  54.04N  36.51E  NE  72B  LR  35C  PS  36C  AL  31C  BE  36C
372=4F 21 1405  9705 POLI RFE B2           0    0    0  11.64N  43.04E  GI  43C  WP 326C
373=4F 21 2001  9705 POLI RFE G1B        364   10   79  52.57N   7.60E  U2  78B  NE  76B  n1 100B  LR  18C  AL  44C  NE  77B
                                                                       NE  82B  FE  27C  SS  46C  NE  76B
374=4F 21 2302  9705 POLI RFE G1B       1239  212  128  40.91N  68.22E  U2  79B  NE  79B  SS  37C  FE 354C  DS 356C  WP 324C
                                                                       NE  78B  NE  77B
375=4F 25 2115  9705 POLI RFE G1B          0    0    0  39.92N  67.60E  U2  77B  N0  88C
376=4F 26 0840  9705 POLI RFE B2           0    0    0  28.36N  57.51E  AN 336C  WP 324C
377=4F 21 0502  9760 POLI BBC CYPRUS     105   40  104  53.09N  18.16E  N0 124B  NE  79C  U2  77B  NE  79C
378=4F  9 1941 11710 POLI VOA TAN 5        0    0    0  74.35N  32.60E  AN 359C  BE  20C
379=4F  8 1911 11710 POLI VOA TAN 5     1868  175  125  45.77N  60.78E  NE  77B  NE  78B  N0  87B
380=4F 10 1915 11710 POLI VOA TAN 5     2098  633  135  53.24N  36.63E  SS  35C  DS   8C  FL  40C  FE  16C  PS  39C  BE  35C
381=4F 12 1911 11710 POLI VOA TAN 5     1974  377  140  45.69N  64.74E  SS  36C  AL  21C  FL  28C  PS  23C  LR  23C  FL  28C
                                                                       GI   9C  LR  22C  PS  23C  SS  36C  N0  83C
382=4F 12 2141 11710 POLI VOA TAN 5     1829  751  160  36.87N  65.50E  FL  37C  DS   3C  GI  18C  LR  23C  PS  21C  SS  37C
                                                                       WP 324C  KI  15C
383=4F  8 2011 11710 POLI VOA TAN 5     2111  189  127  44.59N  62.62E  NE  78B  NE  78B  N0  87B
384=4F  7 2001 11710 POLI VOA TAN 5      993  223  125  45.82N  61.23E  NE  76B  AL  24C  PS  21C  SS  42C  LR  28C  GI  17C
                                                                       AN 336C  BE  31C  FL  24C  U2  75B
385=4F  8 1911 11725 POLI RFE G6        1202  111  119  48.32N  55.09E  U2  77B  NE  76B  NE  75B  NE  78B  N0  87B
386=4F  7 2014 11725 POLI RFE G6         806  251  146  43.31N  66.32E  N2 108B  U2  75B  AN 336C  FL  24C  WP 323C  FE   3C
387=4F 10 1911 11725 POLI RFE G6           0    0    0  23.79N  88.52E  U2  76B  N0  83A
388=4F 10 2033 11725 POLI RFE G6        1088  156  139  41.53N  66.75E  N0  87A  N2 110B  U2  76B
389=4F 11 1731 11725 POLI RFE G3A        821  291  143  43.05N  63.36E  U2  76B  AL  16C  FE 356C  WP 328C  DS   5C  N3 125C
390=4F 11 1945 11725 POLI RFE G6        1779  783  168  39.24N  65.31E  WP 323C  LR  18C  DS   4C  SS  45C  FE   4C  GI  11C
                                                                       AL  20C
391=4F  8 2011 11725 POLI RFE G6         410   17   84  52.74N   9.58E  U2  79A  NE  78B  NE  78B
392=4F  7 0631 11725 POLI RFE G2A       1204  163  138  34.55N  75.02E  U2  81B  BK  81A  NE  80B  SS  25C  N0  87A  N2 105B
393=4F  7 1745 11725 POLI RFE G3A          0    0    0  26.06N  80.48E  BE  28C  SS  37C
394=4F 10 2048 11750 POLI VOA TAN 2     2177 1174    1  41.07N  67.16E  BE  29C  FE 357C  WP 323C
395=4F  7 2031 11750 POLI VOA TAN 2     1244  273  145  41.46N  68.29E  N2 108B  AL  23C  LR  26C  PS  20C  U2  75B
396=4F 10 0615 11945 POLI BBC CYPRUS       0    0    0  47.87N  56.07E  NE  77C  N3 130C
397=4F 17 1235 15255 POLI RFE G2        1186  172  148  34.03N  75.36E  NE  78B  N0  88A  N2 105A  LR  21C  FL  27C  SS  38C
                                                                       BE  32C
398=4F 20 0831 17735 POLI RFE G13+G14   1263  156  129  39.82N  67.26E  U2  78B  N0  85B  BK  83A  NE  76B  AN 333C
399=4F 20 1131 17735 POLI RFE G13+G14   2621  278  138  32.84N  78.81E  U2  77B  N0  88B  BK  82B  NE  77B  N1  92C  U2  75C
400=4F 21 1132 17735 POLI RFE G13+G14    185   44   95  56.22N  27.90E  NE  60B  AN 332C  LR  29C  U2  75B  N0  90B
401=4F 22 0911 17735 POLI RFE G13+G14    660  125  138  43.60N  66.87E  NE  78B  NE  79B  U2  78B  NE  71B  N1 100A
402=4F 23 1104 17735 POLI RFE G13+G14   1351  236  122  46.20N  61.90E  NE  73B  U2  77B  AN 333C
403=4F 24 1111 17735 POLI RFE G13+G14      0    0    0  44.26N  59.52E  U2  77A  N0  90B
404=4F 24 1331 17735 POLI RFE G13+G14    981  116  119  49.62N  49.65E  N0  90B  U2  77B  NE  76B
405=4F 24 1401 17735 POLI RFE G13+G14   1128  127  120  48.84N  51.63E  N0  90B  U2  76B  NE  77B
406=4F 21 1431 17805 POLI RFE G1A       1427  246  125  42.48N  66.34E  BK  80B  NE  76B  AN 332C  U2  77C
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407=4F 22 0741 17805 POLI RFE G1A      1369  188  122  45.72N  61.34E  AN 334C U2  77B NE  74B NE  78B
408=4F 22 1111 17805 POLI RFE G1A         0    0    0  43.03N  63.63E  N0  88A U2  76B
409=4F 13 1135 21665 POLI RFE G11+G12     0    0    0  52.53N   6.78E  U2  80B NE  74B
410=4F 20 0901 17740 RUSS VOA PHT12     573  115  128  43.61N  61.72E  N0  85B N2 113B U2  77B BK  83A NE  71B
411=4F 24 0905 17740 RUSS VOA PHT12       0    0    0  56.29N  34.30E  NE  65B N0  87B
412=4F 25 1042 17740 RUSS VOA PHT12       0    0    0  52.90N  43.70E  N0  89B N2 128B
413=4G 12 1354 11865 RUSS VOA WOF 4    4643  950  136  50.91N  44.60E  AL  29C PS  30C SS  36C
414=4N  6 1115  5970 POLI RFE B6          0    0    0  55.19N  52.37E  U2  63B WP 343C
415=4N  6 1235  5970 POLI RFE B6          0    0    0  55.19N  52.37E  WP 343C U2  63B
416=4N  7 0602  6150 POLI BBC WOOF    7852  395  146  23.47N 104.72E  NE  68B NE  68B N0  70A
417=4N 21 0606  9650 POLI VOA TAN 1     503   82  142  53.91N  62.02E  NE  64B N2 103A PS  19C
418=4N 24 0502  9650 POLI VOA TAN 1       0    0    0  57.37N  21.50E  U2  58A NE  55B
419=4N 24 0533  9705 POLI RFE G1B       0    0    0  60.18N  53.34E  NE  54B N3 118C
420=4N 11 1931 11710 POLI VOA TAN 5       0    0    0  57.31N  30.03E  U2  61A BK  56A
421=4N 11 2043 11710 POLI VOA TAN 5     933  409  156  70.75N  46.78E  GI   3C AL  14C LR  23C BE  25C FL  19C DS   2C
                                                                       FE   1C AN 356C
422=4N 15 1107 15145 POLI RFE G1        337   82  137  57.70N  58.92E  N3 114B N1  91B NE  57B
423=4N 16 0631 15145 POLI RFE G1          0    0    0  38.67N  88.20E  U2  65C N0  73C
424=4N 15 1344 15255 POLI RFE G2          0    0    0  57.28N  58.61E  N0  70B NE  59B
425=4N 15 0931 21665 POLI RFE G11+G12   280   54  126  60.89N  49.60E  N0  66B N2 105B N1  90B
426=4N 23 1035 17740 RUSS VOA PHT12       0    0    0  57.58N  57.43E  N3 117A N0  70B
427=7K 20 2333  9695 ???? ????????????  375   49  101  53.88N  34.28E  U2  71A NE  74C N0  95C
428=7K  9 1941 11740 ???? ????????????  2496 1163  160   7.28N  73.45E  SS  58C AL   6C DS  16C
429=7K 15 1127 15250 ???? ????????????    0    0    0   0.00N   0.00E  n2 281B n0  88B
430=7K 14 1948  7140 ARAB BBC CYPRUS      0    0    0  46.55N  59.55E  N0  87B N2 114B
431=7K 23 2233  9695 HUNG RFE G13+G14  1367  153  155  40.26N  70.11E  N1 100B U2  75C N3 118A
432=7K 26 0701  9695 HUNG RFE G5          0    0    0  27.00N  83.64E  N0  85B NE  81C
433=7K  6 2112  5985 POLI RFE G3A        0    0    0  52.87N   7.39E  NE  65B U2  76C
434=7K 10 2301  6150 POLI VOA WOF 1    4232  298  134  38.72N  75.14E  U2  73B NE  77B N0  83B
435=7K 11 2211  6150 POLI VOA WOF 1       0    0    0  33.95N  77.59E  U2  76B N0  85C
436=7K 12 2327  6150 POLI VOA WOF 1    2308  195  129  46.08N  60.31E  N0  90C N0  85B U2  75B
437=7K  9 2331  6150 POLI VOA WOF 1    1499  148  119  50.92N  58.47E  U2  72B N0  80B NE  69B
438=7K  7 2341  6150 POLI VOA WOF 1     145   45  104  53.68N  23.35E  NE  75B NE  76C N0 110B
439=7K 13 2043  7130 POLI BBC CYPRUS      0    0    0  52.99N  10.44E  U2  77A NE  75B
440=7K 13 1904  7145 POLI RFE G2       1149  128  120  49.28N  52.28E  N0  88B U2  77B NE  75B
441=7K 13 2042  7145 POLI RFE G2        612  134  126  49.42N  60.94E  N1 100B NE  73B NE  74B NE  69B
442=7K 13 2231  7145 POLI RFE G2        261   39   91  55.78N  31.17E  U2  73B N0  83C NE  65B AN   3C FE   8C NE  68B
                                                                       NE  65B FL  42C SS  35C
443=7K 13 2320  7145 POLI RFE G2       1161  136  125  48.48N  58.24E  U2  74B N0  83B N0  83B U2  74B FE   2C FL  41C
                                                                       SS  35C
444=7K 14 1957  7145 POLI RFE G2          0    0    0   5.63S  84.86E  AL  15C LR  31C
445=7K 14 2134  7145 POLI RFE G2        868   99   98  54.05N  36.50E  NE  72B AL  32C PS  38C AN 356C BE  33C
446=7K 15 2115  7145 POLI RFE G2        805  154  136  44.83N  64.90E  U2  72B N0  85B N2 109B U2  73B N0  86B
447=7K 17 2331  7145 POLI RFE G2        533  135  126  51.86N  55.90E  N0  85B NE  68B N2 110C
448=7K 19 2114  7145 POLI RFE G2        855  174  149  45.63N  66.46E  N3 120B U2  72B N2 105B
449=7K 19 2331  7145 POLI RFE G2        927  397   97  58.55N  11.62W  n2 110B LR  40C AL  41C AN  27C SS  34C FL  39C
450=7K 13 1744  7180 POLI BBC WOOF       0    0    0  53.79N  15.48E  NE  72B U2  73A
451=7K 15 1745  7180 POLI BBC WOOF       0    0    0  41.33N  71.50E  U2  73B N2 105B
452=7K 13 1205  7190 POLI RFE B3       1569  479  151  47.94N  50.38E  BE  38C AL  46C PS  41C LR  33C GI  48C AN 333C
                                                                       FL  23C PS  24C BE  22C FE   9C DS   5C LR  27C
453=7K 14 1141  7190 POLI RFE B3        702   96   52  57.12N  51.84W  LR  30C FL  21C AL  43C PS  28C BE  38C
454=7K 17 1841  7190 POLI RFE G2B         0    0    0  19.91N  93.47E  BK  80B N3 103A
455=7K 18 0401  7190 POLI RFE G2A       496   68  111  54.99N  42.23E  N0  85B NE  68B N0  85B
456=7K 14 2111  7235 POLI BBC CYPRUS    947  113  118  49.69N  50.15E  NE  77B NE  77B N0  90B
457=7K 21 2342  9540 POLI VOA TAN 2       0    0    0  34.85N  73.54E  N2 107B U2  78B
458=7K 20 2345  9645 POLI VOA TAN 4       0    0    0  54.38N  26.13E  U2  71B NE  72B
459=7K 21 2231  9645 POLI VOA TAN 4       0    0    0  52.50N   8.23E  U2  81B NE  81B
460=7K 23 2245  9645 POLI VOA TAN 4       0    0    0  33.99N  74.65E  U2  78B N1 100B
461=7K 25 2202  9645 POLI VOA TAN 4     560   77  150  47.84N  64.80E  N2 106A N1  91B NE  80B N3 120A
462=7K 25 2305  9645 POLI VOA TAN 4       0    0    0  52.56N   7.55E  NE  77B U2  80B
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463=7K 20 0513  9650 POLI VOA TAN 1     305   58  104  55.19N  34.93E  N0  90B  U2  70C  NE  68B
464=7K 20 2045  9650 POLI VOA TAN 4     720   27   85  54.24N  18.81E  U2  71A  NE  70B  NE  73B
465=7K 20 2118  9650 POLI VOA TAN 4     775  195  135  45.47N  66.52E  N2 107B  NE  73B  NE  76B
466=7K 21 1911  9650 POLI VOA TAN 4     879  151  130  44.59N  65.29E  U2  76B  NE  77B  N0  70C  N1 100B  NE  78B  NE  80B
467=7K 21 2041  9650 POLI VOA TAN 4       0    0    0  52.88N  10.57E  U2  78B  NE  77B
468=7K 21 2101  9650 POLI VOA TAN 4     430   14   79  52.66N   8.21E  U2  79B  NE  76B  NE  77B  NE  76B
469=7K 23 2045  9650 POLI VOA TAN 4       0    0    0  33.99N  74.65E  U2  78B  N1 100B
470=7K 26 0635  9650 POLI VOA TAN 1       0    0    0  53.28N  14.51E  NE  76B  U2  76B
471=7K 22 1501  9660 POLI BBC WOOF      753   94  109  52.71N  42.91E  N0  88C  NE  72B  U2  75B
472=7K 24 1501  9660 POLI BBC WOOF      392   66  111  52.28N  37.50E  U2  76B  NE  76B  N0  96B
473=7K 20 0937  9705 POLI RFE B2       3568 1038   17  40.95N  64.14E  AN 332C  DS   7C  WP 330C
474=7K 21 1841  9705 POLI RFE G1B         0    0    0  30.26N  84.26E  NE  78B  N3 108B
475=7K 21 2005  9705 POLI RFE G1B      1966  207  126  42.43N  69.33E  an  61C  NE  76B  WP 326C  NE  77B  NE  77B  NE  76B
476=7K 21 2302  9705 POLI RFE G1B      2449  260  123  45.84S 158.68E  U2  79B  NE  79B  N0  65B  NE  78B  NE  80B  NE  77B
477=7K 23 2131  9705 POLI RFE G1B       673  175  136  44.31N  66.67E  N2 107B  BK  72B  WP 323C  U2  80C  BE  28C  NE  78B
                                                                      LR  32C  N1 100C
478=7K 25 1831  9705 POLI RFE G1B         0    0    0  51.25S 176.09E  U2  75B  N0  40B
479=7K 25 2115  9705 POLI RFE G1B      1871  292  148  35.37N  74.44E  U2  77B  N2 106B  N1  99B
480=7K 20 1740  9750 POLI BBC WOOF     1317  208  128  40.22N  62.56E  U2  80A  WP 328C  FE 355C  GI  17C
481=7K 22 1735  9750 POLI BBC WOOF        0    0    0   8.64S 111.84E  NE  82B  U2  78B
482=7K 24 1731  9750 POLI BBC WOOF        0    0    0  51.32S 176.22E  U2  76B  NE  84B
483=7K 10 2041 11710 POLI VOA TAN 5     2138  347  136  44.60N  67.69E  GI   4C  DS   8C  N0  83B
484=7K 10 2034 11725 POLI RFE G6        5337  350  136  34.54N  79.10E  NE  77B  U2  76B  N0  83B
485=7K 11 1731 11725 POLI RFE G3A       1649  153  118  49.40N  53.93E  U2  76B  N0  85C  NE  74B
486=7K 10 1901 11750 POLI VOA TAN 2      393   58  116  50.90N  49.91E  BK  73A  U2  74B  NE  76B  N0  88A  SS  35C  FL  26C
                                                                      LR  25C  BE  29C
487=7K 10 2044 11750 POLI VOA TAN 2     2707  107  114  49.42N  47.17E  U2  76A  FL  42C  SS  45C  BE  30C
488=7K  8 1901 11750 POLI VOA TAN 2      785   79  119  47.64N  56.06E  U2  77B  BK  77A  N0  88B  NE  76B  NE  76B  N0  88B
                                                                      NE  78B
489=7K  7 2020 11750 POLI VOA TAN 2      642  148  132  43.51N  67.08E  U2  73A  NE  77B  BK  78B  N2 108B  FL  21C  LR  27C
                                                                      BE  24C  FE 357C  BE  24C  FE 357C
490=7K 12 1905 11750 POLI VOA TAN 2     1470  129  126  44.19N  64.21E  U2  74A  PS  25C  FL  24C  LR  27C  SS  39C  N0  83C
                                                                      PS  28C  SS  43C  FL  25C  U2  75A  N0  83C
491=7K  6 1903 11750 POLI VOA TAN 2      823   31   89  53.92N  21.55E  NE  74B  FE 357C  FL  56C  LR  56C  PS  35C  SS  33C
                                                                      U2  73A
492=7K  7 2101 11750 POLI VOA TAN 2    49148  772  142  13.73S 121.13E  NE  77B  BK  80B  U2  74B
493=7K 13 0701 15145 POLI RFE G1        511  116  131  43.03N  66.60E  BK  76A  U2  78A  N0  87B  NE  70C  N3 120B  N2 102C
494=7K 15 0701 15145 POLI RFE G1        515   99  128  44.76N  68.01E  U2  78A  N0  79B  NE  75B  N2 100B  N3 118C  BK  71A
                                                                      NE  77B  NE  75B  NE  75B
495=7K 15 0811 15145 POLI RFE G1         95    3   53  52.26N   5.12E  U2  60C  NE  66B  NE  57B
496=7K 15 1101 15145 POLI RFE G1        154   36   86  57.02N  28.57E  U2  65C  N0  88B  NE  60B  n2 281B  BK  56B  ne  73B
                                                                      n1  98B  NE  62B
497=7K 16 0634 15145 POLI RFE G1        1576  148  112  49.98N  52.91E  NE  73B  PS  22C  AL  30C  LR  27C  BK  76B
498=7K 16 1311 15145 POLI RFE G1           0    0    0  33.95N  77.59E  U2  76A  N0  85B
499=7K 17 0701 15145 POLI RFE G1        1259  122  121  46.72N  57.85E  U2  78B  N0  87B  BK  78B  BK  78B  NE  75B
500=7K 13 0905 15255 POLI RFE G2           0    0    0  38.40N  73.77E  NE  78B  N3 115B
501=7K 18 1031 15255 POLI RFE G2           0    0    0  52.87N   7.39E  U2  76B  NE  65B
502=7K 23 1104 17735 POLI RFE G13+G14   1351  236  122  46.20N  61.90E  U2  77B  NE  73B  AN 333C
503=7K 20 1101 17805 POLI RFE G1A        181   59  114  54.60N  39.42E  U2  75B  N0  80C  NE  72B  AN 346C  N0  85B  N2 135C
504=7K 20 1211 17805 POLI RFE G1A       5214  310  138  37.64N  77.09E  N0  84B  U2  74B  N0  80B
505=7K 21 1115 17805 POLI RFE G1A          0    0    0  41.40N  68.21E  N0  86A  U2  75B
506=7K 21 1215 17805 POLI RFE G1A          0    0    0  33.90N  74.02E  N0  88B  BE  30C
507=7K 21 1350 17805 POLI RFE G1A          0    0    0  38.45N  72.94E  U2  75A  N0  85A
508=7K 21 1411 17805 POLI RFE G1A      11282  334  145  24.06N  86.25E  N0  85A  N0  83B  SS  38C  f1  36C  U2  77C
509=7K 22 0741 17805 POLI RFE G1A        199    5   75  52.40N   5.97E  U2  77B  NE  72B  NE  78B  NE  74B
510=7K 22 1043 17805 POLI RFE G1A          0    0    0  53.01N   9.10E  U2  76A  NE  71B
511=7K 22 1113 17805 POLI RFE G1A        900   83  115  47.96N  54.21E  AN 333C  NE  73B  BK  81A  U2  76B  NE  72B  NE  72B
                                                                      AN 333C
512=7K 23 0931 17805 POLI RFE G1A       1283  202  126  43.34N  65.73E  BK  81B  NE  75B  AN 334C  U2  75B  N0  83C
513=7K 24 1041 17805 POLI RFE G1A          0    0    0  40.66N  67.91E  U2  76A  N0  87B
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514=7K	24	1242	17805	POLI	RFE	G1A	0	0	0	59.06N	11.97E	NO	83A	LR	38C								
515=7K	25	1050	17805	POLI	RFE	G1A	0	0	0	46.88N	62.76E	NO	84A	N2	110B								
516=7K	25	1201	17805	POLI	RFE	G1A	636	79	113	51.44N	48.00E	NO	85B	U2	73A	NE	74B	LR	41C	AN	353C		
517=7K	26	1401	17805	POLI	RFE	G1A	0	0	0	38.45N	72.94E	U2	75B	NO	85B								
518=7K	13	1131	21665	POLI	RFE	G11+G12	0	0	0	51.02N	50.87E	NO	87B	NE	74B								
519=7K	14	1233	21665	POLI	RFE	G2	0	0	0	52.88N	8.58E	U2	77B	NE	72B								
520=7K	15	1131	21665	POLI	RFE	G11+G12	0	0	0	49.96N	47.22E	U2	75A	NE	78B								
521=7K	17	1131	21665	POLI	RFE	G11+G12	130	13	60	52.99N	7.04E	U2	74B	NE	57B	NE	57B						
522=8L	11	2231	5970	HUNG	RFE	G4	0	0	0	49.96N	47.22E	U2	75C	NE	78B								
523=8L	11	2301	5985	POLI	RFE	G3A	0	0	0	54.27N	13.65E	U2	69B	NE	65B								
524=8L	14	2134	7145	POLI	RFE	G2	0	0	0	52.87N	46.33E	NE	72B	BE	36C								
525=8L	14	0601	7260	POLI	BBC	WOOF	0	0	0	38.08N	87.40E	U2	66B	BK	70A								
526=8L	20	0515	9650	POLI	VOA	TAN 1	445	110	122	52.54N	57.18E	NE	68B	NE	68B	N1	100B	NE	69B				
527=8L	21	0610	9650	POLI	VOA	TAN 1	2872	1027	153	36.78N	62.71E	FE	356C	FL	26C	PS	29C	SS	42C				
528=8L	22	0511	9650	POLI	VOA	TAN 1	668	40	83	55.20N	21.43E	U2	69B	NE	64B	U2	69B	DS	14C	BE	38C	FE	6C
529=8L	24	0510	9650	POLI	VOA	TAN 1	2413	147	163	39.66N	56.18E	WP	338C	N3	135A	PS	41C	DS	7C				
530=8L	26	0635	9650	POLI	VOA	TAN 1	0	0	0	18.67S	92.82E	FL	42C	N2	109B								
531=8L	11	1331	11725	POLI	RFE	B1	201	103	119	56.40N	49.86E	BK	62B	N3	130C	NE	62B						
532=8L	7	1110	11725	POLI	RFE	B1	0	0	0	70.16N	48.61W	AL	22C	AN	33C								
533=8L	6	1211	11725	POLI	RFE	B1	2031	96	44	56.26N	54.92W	BE	32C	FL	25C	LR	33C						
534=8L	10	1146	11725	POLI	RFE	B1	0	0	0	50.96N	41.56E	AL	31C	LR	35C								
535=8L	17	2031	7140	UKR	VOA	PHT 4	0	0	0	55.13N	31.03E	U2	68A	NE	69B								
536=A5	22	0627	9555	????	????????????		0	0	0	31.37N	47.59E	PS	40C	FL	44C								
537=A5	20	1001	9675	RUSS	VOA	PHT 8	416	92	143	40.22N	26.54E	U2	114B	NO	133B	N2	168C						
538=A5	21	0937	9675	RUSS	VOA	PHT 8	0	0	0	33.08N	39.59E	NE	114B	PS	44C								
539=A5	23	1001	9675	RUSS	VOA	PHT 8	0	0	0	47.64N	21.54E	NO	133B	NE	107B								
540=AD	10	1731	11875	GEOR	RL	L7+L8	4757	445	133	40.84S	132.88E	NO	85A	NE	93B	U2	90B						
541=AD	6	2031	11770	RUSS	RL	B3	0	0	0	0.00N	0.00E	u2	87C	bk	90A	ne	75B						
542=AD	26	0216	9660	TI	RL	HD	0	0	0	55.03N	22.59E	NO	105B	NE	68B								
543=AG	20	0601	9555	BULG	RFE	G1	0	0	0	11.57N	122.53E	BK	63B	U2	57B								
544=AG	25	0531	9555	BULG	RFE	G2	939	163	136	48.59N	70.62E	N1	91B	NE	77B	N1	90B	U2	59B				
545=AG	9	2001	11825	BULG	RFE	G5	0	0	0	62.26N	45.03E	NO	63B	NE	49B								
546=AG	15	1001	15330	BULG	DW		0	0	0	0.00N	0.00E	u2	60C	ne	112B	an	345C						
547=AG	21	0631	9725	CZEC	RFE	G9+G10	191	63	130	54.95N	59.62E	BK	61A	NE	66B	NE	66B	N2	104A	AN	346C		
548=AG	25	0504	9725	CZEC	RFE	G9+G10	0	0	0	47.84S	170.79E	NE	70B	U2	59A								
549=AG	25	0631	9725	CZEC	RFE	G9+G10	0	0	0	50.76N	47.84E	NO	90C	NE	76B								
550=AG	11	0731	11855	CZEC	RFE	G6	0	0	0	.98N	118.77E	BK	73A	NO	70A								
551=AG	9	0841	11855	CZEC	RFE	G6	0	0	0	42.21N	44.47E	NE	95B	AN	349C								
552=AG	6	0701	11855	CZEC	RFE	G6	0	0	0	55.91N	17.28E	U2	62A	NE	58B								
553=AG	15	0811	15170	CZEC	RFE	G7	0	0	0	50.74S	176.82E	U2	60C	NE	77B								
554=AG	13	0926	15215	CZEC	RFE	G3B	0	0	0	47.94N	67.95E	N3	115B	N1	95B								
555=AG	15	1111	15215	CZEC	RFE	G3B	1097	37	87	56.87N	31.77E	U2	62A	NE	62B	NE	65B						
556=AN	19	0611	7290	????	????????????		367	54	156	55.32N	38.10E	N2	133B	N3	152B	N1	120C						
557=AN	26	0901	9520	RUSS	RL	L2	0	0	0	54.07N	43.66E	NE	70C	N3	143B								
558=AN	12	0705	11970	RUSS	RL	L7+L8	0	0	0	0.00N	0.00E	lr	151C	an	355C								
559=AN	8	1153	11970	RUSS	RL	P5	4804	817	135	41.55N	43.63E	LR	44C	AL	41C	SS	50C	BE	35C				
560=AN	12	1235	11970	RUSS	RL	P5	2613	400	103	60.70N	4.12E	u2	100B	AL	42C	BE	40C	LR	34C	SS	38C	FL	29C
561=AN	12	1347	11970	RUSS	RL	P5	4613	956	130	48.76N	39.74E	AL	32C	FL	38C	SS	38C						
562=AN	10	1225	11970	RUSS	RL	P5	1388	180	105	54.30N	45.40E	U2	67B	LR	30C	AL	30C	BE	33C				
563=AS	25	0638	9725	CZEC	RFE	G9+G10	4352	50	101	52.24N	30.97E	SS	39C	FL	35C	U2	77A						
564=AU	9	1935	11655	RUSS	IBA		0	0	0	0.00N	0.00E	an	7C	n2	45C								
565=AW	19	0211	7260	????	????????????		816	112	90	64.79N	177.78E	WP	346C	AN	298C	DS	330C						
566=B1	16	0811	7180	????	????????????		2158	7	89	51.94N	.96E	U2	96B	PS	48C	LR	49C	BE	52C				
567=B1	6	0711	11857	????	????????????		0	0	0	15.79N	46.01E	N2	145B	NO	128A								
568=B1	13	1541	15210	????	????????????		0	0	0	51.18N	17.98E	AL	42C	FL	40C								
569=B1	6	0511	6115	CZEC	RFE	G4B	0	0	0	52.13S	178.50E	U2	98A	NE	91B								
570=B1	11	1831	6135	CZEC	RFE	B2	0	0	0	0.00N	0.00E	u2	96B	be	58C								
571=B1	12	0001	6135	CZEC	RFE	G1A	0	0	0	50.98N	18.23E	U2	88C	NO	132A								
572=B1	7	1641	6135	CZEC	RFE	B2	0	0	0	49.13N	19.98E	U2	95B	NO	133C								
573=B1	8	0540	6190	CZEC	DW		0	0	0	53.00N	46.41W	BE	52C	FL	34C								

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574=B1 14 2305  7165 CZEC RFE G1          0    0    0  50.79N  12.53E  BE  52C  U2  94B
575=B1 19 0632  7180 CZEC RFE B4          0    0    0  48.89N  27.89E  U2  89B  NE  94B
576=B1 24 2101  9615 CZEC DW            154   41  121  49.34N  20.67E  N0 130B  NE  96B  U2  98B  FL  45C
577=B1 20 1841  9725 CZEC RFE G9+G10   5981  567  115  53.06N  10.26E  PS  44C  AL  41C  FL  38C  LR  46C
578=B1 21 0635  9725 CZEC RFE G9+G10      0    0    0   0.00N   0.00E  ne  66B  u2  98B
579=B1 24 1847  9725 CZEC RFE G9+G10  16769  978  137  36.76N  37.62E  AL  42C  PS  43C  LR  47C
580=B1 24 1935  9725 CZEC RFE G9+G10      0    0    0  51.50N  22.54E  N0 120C  NE  87C
581=B1 26 1811  9725 CZEC RFE G9+G10      0    0    0  30.21N  45.71E  BE  52C  FL  46C
582=B1 11 0735 11855 CZEC RFE G6         0    0    0  38.20N  39.85E  FL  43C  LR  45C
583=B1  6 0710 11855 CZEC RFE G6      3161  477  110  50.87N   8.71E  BE  52C  FL  42C  LR  50C  PS  43C  SS  42C
584=B1 11 2001 11855 CZEC RFE G16      563   19   64  52.91N   7.22E  u2 100B  NE  62B  AN  13C  BE  50C  AL  46C  SS  42C
                                                                     PS  44C  FL  40C
585=B1 12 1919 11855 CZEC RFE G16      995   49  144  49.28N  19.81E  PS  45C  SS  40C  FE  22C  FL  38C  SS  43C  FE  24C
                                                                     FL  40C  PS  44C  LR  48C  N0 133B  N0 133B
586=B1  9 0741 11855 CZEC RFE G6         0    0    0  51.26N  17.90E  NE  92B  N0 132B
587=B1  8 1941 11855 CZEC RFE G16     1893  142  146  41.47N  30.56E  BE  54C  FL  43C  LR  53C  SS  46C  N0 127B
588=B1 15 1555 15215 CZEC RFE G3B     3493  674  126  44.45N  28.37E  GI  35C  PS  41C  SS  46C  FL  43C  BE  52C
589=B1  7 1743 11770 TB   RL  HC         0    0    0  55.65N  39.92E  N2 130C  N3 148B
590=BA 23 2109  9815 RUSS IBA            0    0    0  51.19N 138.12E  WP 318C  AN 289C
591=BD 12 1749 11845 CZEC VOA TAN 2   1602  451  108  66.85N   3.12W  FE  26C  AL  32C  DS  19C  LR  31C
592=BD 24 2131  9530 RUSS VOA KAV 3   1529  292  133  47.20N  68.09E  U2  70B  N1  90C  BE  39C
593=BD 11 1742 11740 RUSS VOA KAV 8   4133  511  100  58.19N   8.36W  AL  44C  FL  38C  PS  36C
594=BD 12 1301 11780 RUSS BBC WOOF       0    0    0  56.63N  28.67E  N2 150B  N3 170B
595=BD 12 1311 11835 RUSS VOA WOF 9      0    0    0  56.63N  28.67E  N2 150B  N3 170C
596=BD 11 1811 11865 RUSS DW          1382  142  164  47.68N  33.13E  FL  38C  SS  43C  PS  36C  N2 150B
597=BD 12 1343 11865 RUSS VOA WOF 4   1312  109   95  55.37N  33.63E  SS  34C  FL  32C  LR  37C  AL  30C  U2  67B
598=BD  8 1811 11865 RUSS DW          1682  970  156  47.62N  25.54E  FE  20C  SS  44C  AN   4C
599=BD 11 2116 11875 RUSS RL  L7+L8   1472   67  125  53.50N  23.78E  N0 110B  DS  26C  AN   4C
600=BD  6 1557 11905 RUSS DW             0    0    0  55.79N  31.91W  FL  36C  PS  42C
601=BD  9 1716 11935 RUSS RL  P3         0    0    0  67.99N  21.72E  AN   4C  DS  17C
602=BD 12 1434 11970 RUSS RL  P5       791   76   71  54.34N  13.46E  NE  64C  AL  40C  KI  37C  LR  39C  PS  42C
603=BD 16 1610 15355 RUSS RL  G8         0    0    0  52.41N  12.50E  NE  85B  BK  66B
604=BD 25 1503 17865 RUSS RL  P2         0    0    0  52.16N  12.68E  NE  88B  PS  41C
605=BD 25 1601 17865 RUSS RL  P2         0    0    0  53.68N  13.65E  U2  73A  NE  71B
606=BD 25 1701 17865 RUSS RL  P2       469   39   87  53.89N  23.16E  U2  74B  BK  70B  NE  71B
607=BD  9 1705 11885 UKR  RL  P1      2060   27  152  67.40N  19.04E  DS  17C  AN   5C  N2 149B
608=BG 26 0912  9515 ???? ????????????   0    0    0  25.51S 118.21E  N0  85C  N3  95B
609=BG 13 0411  7155 EST  RFE P2      6505   94  105  54.28N  50.06E  NE  67B  NE  68B  U2  65B  NE  68B
610=BG 15 0401  7155 EST  RFE P2      1436  324  115  51.11N  68.68E  BK  65B  WP 328C  DS   6C
611=BG 10 0701 11895 HUNG RFE G4         0    0    0  53.47N  15.67E  U2  75C  BK  62B
612=BG  6 0235  5955 LAT  RFE G3A        0    0    0  55.41N  32.65E  U2  67B  NE  68B
613=BG 16 0431  7155 LAT  RFE P2         0    0    0  54.35N  48.12E  U2  66A  NE  68B
614=BG 21 0311  9690 PASH DW             0    0    0  54.49N  50.31E  U2  65A  NE  67B
615=BG 15 0501  7130 POLI VOA KAV 1    300   26   81  55.51N  22.37E  U2  66A  NE  64B  BK  65B  NE  61B
616=BG 15 0631  7130 POLI VOA KAV 1    678   49   81  55.83N  22.96E  U2  66B  NE  63B  AN 357C  LR  37C  DS  26C
617=BG 16 0601  7130 POLI VOA KAV 1    229   24   81  55.34N  24.51E  U2  67A  n0  84B  NE  68B  BK  61A  SS  45C  BE  49C
618=BG 17 0531  7130 POLI VOA KAV 1    498   28   90  55.63N  36.83E  U2  66A  BK  64A  BK  64A  NE  66B
619=BG 18 0616  7130 POLI VOA KAV 1      0    0    0  35.08N  52.97E  LR  39C  FL  38C
620=BG 13 2311  7145 POLI RFE G2       420   26   75  54.44N  14.59E  NE  65B  U2  65B  NE  69B  U2  65B  NE  69B
621=BG 13 0636  7190 POLI RFE B3         0    0    0  50.46S 175.08E  U2  66B  NE  78B
622=BG 13 1205  7190 POLI RFE B3       142    2   66  52.25N   5.10E  U2  70C  NE  68B  NE  67B  NE  76B
623=BG 13 1604  7190 POLI RFE B3       403   23   73  53.72N  11.43E  NE  71C  NE  71C  U2  66B  NE  67B  NE  67B
624=BG 14 0801  7190 POLI RFE B3         0    0    0  55.26N  21.18E  U2  67B  NE  66B
625=BG 11 1131  7190 POLI RFE B3      1298   52   87  55.21N  25.97E  U2  67B  NE  69B  PS  38C
626=BG 14 0601  7260 POLI BBC WOOF     106   53  105  56.89N  35.96E  U2  66B  N2 135C  NE  62B  BE  35C  PS  37C  N1 118C
                                                                     NE  62B
627=BG 26 1231  9705 POLI RFE B2         0    0    0  46.12N  72.79E  U2  67B  NE  70B
628=BG  6 2145  6095 RUSS VOA MUN 4      0    0    0  54.38N  28.14E  AL  35C  NE  72B
629=BG  6 2211  6095 RUSS VOA MUN 4      0    0    0  22.63S 141.76E  N0  60C  NE  65C
630=BG  7 1533  6105 RUSS RL  L11      880   28   79  53.41N  12.95E  NE  77C  NE  77C  NE  71B  AL  30C  FE  24C  GI  28C
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                                                                              NE  72B
631=BG 11 2331  6105 RUSS RL  HC         398   46  108  57.03N  41.05E  NE  63B  N0  80A  FE   4C  DS  30C  FL  40C
632=BG 12 1514  6105 RUSS RL  L11          0    0    0  56.48N  39.09E  N0  83C  N2 130C
633=BG 12 1601  6105 RUSS RL  L11        149   75  144  55.33N  40.65E  N0  85C  U2  66B  N3 147B
634=BG  6 2210  6105 RUSS RL  HC           0    0    0  56.72N  63.06W  BE  15C  AL  38C
635=BG  6 2341  6105 RUSS RL  HC           0    0    0  59.34N  16.54E  U2  45B  N0  80C
636=BG 11 1431  6115 RUSS RL  HA         196   67  114  54.66N  40.77E  N0  87B  NE  71B  N2 130C  U2  65B
637=BG  7 0131  6115 RUSS RL  B1         532   19   74  53.12N   9.56E  U2  75C  NE  70B  NE  70B  NE  71B
638=BG  7 0141  6135 RUSS RL  G1A      56133  477  124  43.59S 153.70E  NE  80B  NE  80B  U2  75C
639=BG 23 1231  9520 RUSS RL  L2         270   27   72  55.55N  21.71E  U2  64B  BK  57A  NE  67B
640=BG 23 1340  9565 RUSS VOA WOF 7        0    0    0  60.80N  24.78E  AN   3C  AL  31C
641=BG 11 1501 11885 RUSS RL  HB        1122   33  104  57.85N  25.18E  N0  87A  SS  38C  AN   3C
642=BG 10 1437 11885 RUSS RL  B4           0    0    0  60.69N  77.44W  GI  26C  AL  13C
643=BG 12 1231 11970 RUSS RL  P5           0    0    0  54.47N  44.02E  N0  85B  U2  67B
644=BG 24 1131 17725 RUSS RL  P1+P2        0    0    0  54.49N  50.30E  U2  65B  NE  67B
645=BG 17 0105  7295 TI   RL  L4        2528   59   94  55.65N  36.76E  NE  67B  U2  65C  U2  66B  NE  67B
646=BN 13 1440 15335 RUSS IBA              0    0    0  37.37N  46.36E  AL  36C  PS  37C
647=BN 17 1031 21455 RUSS RL  L1        1303  172  142  43.24N  77.82E  U2  63B  ne  57B  NE  75B  N1  90A
648=BQ 20 0134  9505 RUSS RL  G1        1278   56   88  52.06S 178.50E  U2  94C  NE  90C  NE  90C
649=BQ 26 2131  9505 RUSS RL  L1           0    0    0  40.78S 146.29E  BK  86B  NE  82B
650=BQ 13 1305 21520 RUSS VOA WOF 5        0    0    0   0.00N   0.00E  u2  97B  ne  80D
651=BQ 16 1235 21735 RUSS RL  G4B          0    0    0  51.05N  32.66E  NE  83B  N0 105B
652=BQ 16 1241 21745 RUSS RL  G3A          0    0    0  39.82N  49.49E  U2  90C  N0 105B
653=BR 23 1511  9510 ???? ???????????? 7874  703  138  48.86N  41.60E  AL  34C  KI  25C  FL  39C  PS  31C  BE  38C
654=BU  9 0834 11905 PASH DW               0    0    0  52.28N   5.49E  NE  81B  U2  83C
655=BU 11 0531  5970 POLI RFE G1A        239   67  120  49.68N  36.61E  U2  84B  N0 102B  NE  84B  N2 144C
656=BU 24 1201 17750 TI   RL  HC         166   59  118  51.72N  33.01E  N0 105B  N3 160C  NE  79B
657=C1 25 1745 17730 ???? ????????????     0    0    0  32.43S  93.60E  LR  52C  PS  45C
658=CB  9 0941 11960 ???? ????????????     0    0    0   3.72S  81.17E  LR  35C  AL  20C
659=CB 13 0440  7105 RUSS VOA MUN 2        0    0    0  33.75N  38.19E  GI  35C  WP 344C
660=CB  9 2135 11915 RUSS RL  P6        1697 1009  179   2.96N  86.65E  DS   3C  AL   9C  SS  40C  AN 288C
661=CB  7 2211 11935 RUSS RL  P3           0    0    0  75.89N  64.19E  FE 358C  AN 348C
662=CB  9 1335 11970 RUSS RL  P5        1956  357  162  20.09S  80.30E  KI  24C  BE  44C  AL  18C  PS  42C  N2 121B
663=CB 21 0705 17750 RUSS RL  P2           0    0    0  53.59N  12.36E  U2  73B  NE  70B
664=CB 22 1331 17865 RUSS VOA KAV 7     2211  157  117  47.78S 171.61E  BK  78A  NE  68B  NE  68B
665=CB 22 1201 17875 RUSS DW             585   97  116  49.59S 174.75E  BK  80A  NE  68B  NE  68B  U2  71B
666=CB 17 1141 21735 RUSS RL  G4B          0    0    0  53.45N  10.64E  NE  68B  U2  73B
667=CB 18 0501  7245 UKR  RL  L5+L6      426  101  145  46.39N  58.93E  N2 115A  N0  85B  U2  72C  NE  80B  LR  45C  AN 322C
                                                                        BE  47C  FE   2C  WP 347C  DS   4C
668=CG 12 1541 11845 DARI VOA KAV 2     5734  717  147  71.57N  51.47E  AL  12C  FL  16C  GI  11C
669=CG 14 0251  7105 RUSS VOA MUN 2        0    0    0  75.78N 111.77E  AN 334C  FE 345C
670=CG 23 0831  9675 RUSS VOA PHT 8      483  105  131  62.58N  72.57E  U2  59C  AN 330C  N3  90B  NE  42B
671=CG 23 0901  9675 RUSS VOA PHT 8      849  236  108  62.13N  74.52E  U2  52B  NE  41B  AN 329C
672=CG 23 1005  9675 RUSS VOA PHT 8        0    0    0  60.09N  84.24E  AL   5C  AN 329C
673=CG 12 1649 11740 RUSS VOA KAV 8        0    0    0  45.54N  71.74E  DS 359C  FE 350C
674=CG 13 0815 15325 RUSS VOA PHT 3        0    0    0  48.96N  89.76E  N0  63B  N1  75B
675=CG 15 1026 15325 RUSS VOA PHT 3        0    0    0  54.21N  12.45E  N0 138B  NE  63B
676=CG 14 0931 15430 RUSS VOA PHT11        0    0    0  51.75N  90.16E  N0  60B  U2  52C
677=CG 16 0942 15430 RUSS VOA PHT11     1096   90  111  60.66N  66.47E  NE  51B  NE  51B  NE  51B  N0  60A
678=CG 16 1031 15430 RUSS VOA PHT11     7001  853  152   6.64S 127.42E  U2  56B  NE  76C  N2  75B  ne  51B
679=D1  9 0743 11855 CZEC RFE G6           0    0    0  52.83N  40.73W  FL  37C  LR  49C
680=D3  8 1101  6020 CZEC DW               0    0    0  51.14N  14.46E  NE  97B  N0 143C
681=D3 18 2234  7165 CZEC RFE G1        2889  418  116  52.14N  13.33E  FL  42C  PS  36C  BE  49C  AL  47C  LR  42C  SS  43C
                                                                        CA  48C
682=D3 19 0746  7180 CZEC RFE B4        3360  471  157  22.61N  51.55E  LR  52C  FL  42C  PS  37C  GI  45C  N1 130B
683=D3 22 0433  9505 LAT  RFE G15+G16      0    0    0  49.14N  17.26E  N0 140A  U2  98B
684=D3 10 1435 11885 RUSS RL  B4           0    0    0  59.02N  10.36W  CA  44C  BE  46C
685=D3 17 1553 15380 RUSS RL  P6        9913  561  110  53.47N   6.63E  BE  51C  PS  41C  FL  40C
686=D3 22 1441 17725 RUSS RL  G2B          0    0    0  43.75S 130.38E  U2  96B  NE  99B
687=D3 21 1442 17865 RUSS RL  P2           0    0    0  51.83N  14.39E  LR  45C  N3 198B
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688=D3 22 1641 17865 RUSS RL  P2          687   64   84  52.38S 176.93E  U2 102B  NE  96B  NE  96B  NE  93B
689=D3 25 1610 17865 RUSS RL  P2         1257   62  147  51.85N  14.63E  BE  49C  N0 140B  AL  45C  LR  45C
690=D3 16 1457 21735 RUSS RL  G4B           0    0    0  44.58N  68.90W  LR  45C  BE  51C
691=D3 22 0131  9625 TI   RL  B7          117   29  144  49.12N  17.42E  U2  98B  N0 138B  N0 140A
692=DA  7 0443  6090 RUSS VOA MUN 3         0    0    0   0.00N   0.00E  an 290C  ds 331C
693=DA 16 1906  7230 ARAB OA              0    0    0  42.23N  65.83E  WP 328C  NE  79B
694=DA 16 0335  7410 RUSS IBA           1351  538  134  47.55N  87.14E  AL  11C  WP 318C  BE  15C  U2  57B
695=DA  8 0911 11930 RUSS VOA PHT 5     4431  977   30  43.88N  67.89E  WP 328C  WP 328C  AN 332C
696=DA 10 0955 11930 RUSS VOA PHT 5        0    0    0  50.03N  71.08E  AN 332C  LR  20C
697=DA  7 0918 11970 RUSS RL  P5           0    0    0  18.41N  74.20W  AL 154C  LR 173C
698=DB 19 0241  7180 ARM  RL  L2           0    0    0   0.00N   0.00E  an 345C  be 166C
699=DB 21 1210  9520 RUSS RL  L2           0    0    0  35.08N  70.66E  AN 327C  WP 320C
700=DB 26 0910  9520 RUSS RL  L2           0    0    0  35.34N  64.46E  AN 332C  WP 324C
701=DB  9 2111 11970 RUSS RL  P5           0    0    0  32.60N  64.48E  WP 322C  SS  43C
702=DB 15 0903 15410 RUSS VOA PHT10        0    0    0  52.31N  76.82E  N2  90B  BK  60B
703=DB 23 1033 17740 RUSS VOA PHT12        0    0    0  42.64N  74.15E  U2  70B  AN 327C
704=DB 16 0235  7295 TI   RL  L4        3490  399   49  71.34N 110.63E  DS 350C  AN 328C  FE 340C
705=DB 23 0142  9625 TI   RL  B7        3320  638   30  49.10N  88.25E  AN 330C  FE 330C  AN 319C  WP 315C
706=DB 24 0240  9660 TI   RL  HD           0    0    0  74.35N 174.30E  FE 336C  AN 330C
707=DN 23 0035  9750 RUSS RL  L3           0    0    0  47.90N 135.89E  AN 287C  WP 314C
708=DN 24 0135  9750 RUSS RL  L3        2018  566   46  48.58N 121.36E  AN 291C  DS 339C  WP 312C  FE 332C
709=DR 13 0345  7210 ???? ????????????     0    0    0  45.42N  68.11W  BE  35C  LR  43C
710=DR 18 1441 15330 ???? ????????????82099 1150  147  13.96N  63.34E  BE  48C  PS  38C  LR  44C
711=DR 24 1412 17760 ARM  RL  L4           0    0    0  51.37N   2.62E  LR  49C  SS  41C
712=DR 16 1511 15340 AZ   RL  L3           0    0    0   0.00N   0.00E  f1  40C  ps  44C  n0 105B
713=DR 18 2101  7155 EST  RFE P4        1167   35   86  54.83N  21.47E  U2  69A  BE  42C  FL  37C  SS  37C  LR  42C
714=DR 16 1701  7255 GEOR RL  L4         169   50  104  55.09N  22.35E  N0 105B  U2  68B  BE  47C
715=DR 11 1631  5970 POLI RFE B6           0    0    0  55.22N  25.41E  N0 100C  NE  68B
716=DR 11 0811  5970 POLI RFE B6         101   32  102  55.20N  22.53E  U2  72B  N0 105B  U2  69C  N0 105B  NE  64B  N0  95C
717=DR  7 1201  5970 POLI RFE B6           0    0    0  55.13N  31.03E  NE  69B  U2  68B
718=DR  6 1235  5970 POLI RFE B6          72   26  105  54.91N  21.21E  NE  68B  n1 180A  N0 108A  NE  68B  NE  68B
719=DR  6 1501  5970 POLI RFE B6         679   26   78  54.32N  16.01E  U2  70B  NE  68B  NE  68B  NE  68B
720=DR  6 1333  5970 POLI RFE B6         464   24   75  53.69N  11.97E  NE  68B  NE  68B  NE  68B  U2  72B
721=DR  8 0731  5970 POLI RFE B6         131   40   99  54.33N  22.11E  BE  41C  FL  32C  LR  39C  SS  42C  N0 109B  U2  73B
                                                                      NE  70B
722=DR  7 1301  5970 POLI RFE B6         155   43   88  54.91N  20.17E  NE  70B  N0 110C  U2  66B
723=DR  6 1111  5970 POLI RFE B6          38   26   56  53.79N  12.56E  NE  68B  NE  68B  n0 110B  NE  68B  N1 180A
724=DR 10 0845  5970 POLI RFE B6         934   72   87  55.10N  22.89E  U2  68B  AN   2C  SS  39C  FL  36C  LR  42C
725=DR  7 0801  5970 POLI RFE B6         115   29   93  54.47N  21.28E  U2  71A  NE  69B  N0 110B  SS  33C  BE  39C  FL  36C
726=DR 10 1401  5970 POLI RFE B6           0    0    0  54.85N  36.39E  U2  68B  N0  90B
727=DR 14 0801  7190 POLI RFE B3         303   66   96  55.99N  31.68E  N0  90C  NE  66B  BE  37C  AN   3C
728=DR 15 1440  7190 POLI RFE B3           0    0    0  57.77N  25.08E  PS  32C  AN   3C
729=DR 16 0701  7190 POLI RFE B3           0    0    0   0.00N   0.00E  u2  68B  lr  10C  an   5C
730=DR 17 0731  7190 POLI RFE B3         381   75  101  55.33N  35.49E  N0  85C  NE  70B  LR  44C  AN   7C  FL  39C
731=DR 19 1131  7190 POLI RFE B3         154   42   96  55.32N  24.77E  U2  69B  N0 100B  NE  66B
732=DR  8 1602  6085 RUSS BBC WOOF          0    0    0  54.48N  14.19E  U2  68B  NE  64B
733=DR 13 1612  7120 RUSS BBC WOOF        406   24   77  54.39N  13.69E  NE  64B  U2  68A  U2  69B
734=DR 17 1731  7170 RUSS VOA KAV 5          0    0    0  54.88N  23.11E  U2  69B  NE  69B
735=DR 15 0731  7220 RUSS RL  L5+L6       674   43   78  54.50N  15.74E  U2  68B  NE  67B  SS  46C  LR  44C
736=DR 15 1201  7220 RUSS RL  L5+L6        66   23   76  53.97N  16.72E  U2  70B  N0 124B  NE  73B  BK  60A
737=DR 15 1627  7220 RUSS RL  L5+L6       138   27  117  54.71N  22.43E  N0 110B  U2  70B  N0 106A
738=DR 16 1131  7220 RUSS RL  L5+L6         0    0    0  54.80N  17.54E  NE  66B  U2  68B
739=DR 16 1531  7220 RUSS RL  L5+L6       533   23   73  56.09N  25.39E  BK  58A  NE  64B  BK  58A
740=DR 18 0803  7220 RUSS RL  L5+L6       134   41   96  55.06N  22.53E  NE  68B  U2  68B  N0 105B
741=DR 19 1201  7220 RUSS RL  L5+L6         0    0    0  53.89N  14.45E  U2  72A  NE  70B
742=DR 19 1601  7220 RUSS RL  L5+L6       214   15  122  51.86S 179.78E  U2  70C  BK  91B  NE  67B
743=DR 17 1631  7295 RUSS RL  HA           0    0    0  54.99N  20.25E  NE  67B  U2  68B
744=DR 10 1203 11885 RUSS RL  B4           0    0    0  54.01N  16.45E  NE  71B  U2  72B
745=DR 25 1335 17760 TI   RL  B7        3465  490  106  56.76N   8.68E  LR  42C  FL  38C  BE  45C  SS  35C
746=DU 12 0848 11885 ???? ????????????     0    0    0  56.74N  34.84E  N0  85C  AN 357C
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747=DU 14 0231  7180 ARM  RL  L2          62   41  136  58.57N  31.35E  N1 122C  N3 165B  NE  60B  N2 140B  DS  19C  FE 358C
                                                                         N0  77B
748=DU 15 0211  7180 ARM  RL  L2           0    0    0   0.00N   0.00E  n1 122B  n0 110B  n3 160C
749=DU 17 0211  7180 ARM  RL  L2         673  135  144  47.46N  35.60E  FE  12C  AN   3C  N1 135C  N0 110C
750=DU 18 0205  7180 ARM  RL  L2           0    0    0  70.97N  12.99E  FE  16C  DS  17C
751=DU 19 0254  7180 ARM  RL  L2           0    0    0  28.16S  49.18E  FE  20C  AN 330C
752=DU 14 0111  7180 AZ   RL  L2         133   21  161  60.71N  29.68E  N3 165A  N2 140B  N2 140A  ne  90B  N3 165B  FE  14C
                                                                         AN  10C  DS  18C
753=DU 18 0141  7180 AZ   RL  L2           0    0    0  69.41N  75.48W  AL   8C  DS  17C
754=DU 19 0111  7180 AZ   RL  L2         593  321  115  66.23N   7.60W  FE  15C  BE  36C  AN  27C  CA  39C  FE  25C  AN  18C
                                                                         DS  15C
755=DU 19 2007  7280 GEOR VOA KAV 9        0    0    0  68.02N  25.85E  FE  13C  N3 168B
756=DU  6 2105  6070 RUSS BBC CYPRUS     174   42   85  57.95N  27.40E  NE  57B  N0  85B  ne  67B  NE  57B
757=DU  8 2101  6070 RUSS BBC CYPRUS       0    0    0  20.02N 110.49E  U2  62C  AN 288C
758=DU 10 2105  6070 RUSS BBC CYPRUS     242   76  139  52.40N  37.35E  FE 357C  N2 139B  N0  96B
759=DU 14 0141  7145 RUSS RL  B8        8456  690  169   9.05N  60.28E  FE 357C  DS  17C  n3 165B  N3 140B
760=DU 14 0242  7145 RUSS RL  B8          81   45  147  59.41N  30.52E  N0  77B  N2 140B  N3 165B
761=DU 17 0213  7145 RUSS RL  B8           0    0    0  38.75N  44.59E  BE  47C  FE  10C
762=DU 18 0219  7145 RUSS RL  B8        3603  832  169  53.77N  33.13E  DS  16C  FE  22C  AN 355C
763=DU 19 0148  7145 RUSS RL  B8           0    0    0  76.77N  11.85W  FE  17C  DS  15C
764=DU 16 0125  7165 RUSS RL  G3           0    0    0  72.13N   3.68E  FE  18C  AN  11C
765=DU 14 0511  7180 RUSS RL  L2          64   33  108  59.35N  30.40E  N0  77A  N2 140C  N3 165B
766=DU 14 0141  7190 RUSS RL  G2B          0    0    0  60.65N  29.72E  N2 140B  N3 165B
767=DU 15 0735  7220 RUSS RL  L5+L6       848   74   87  55.63N  29.03E  NE  67B  BE  37C  AN   2C  DS  25C
768=DU 18 0740  7220 RUSS RL  L5+L6       773  454  107  71.55N   3.34E  BE  20C  PS  32C  AN   9C  FL  27C
769=DU 23 2216  9505 RUSS RL  L1           0    0    0  62.55N  29.01E  N3 165B  N2 136A
770=DU 24 0045  9505 RUSS RL  L1          79   45  147  60.16N  30.61E  N2 137B  N3 165B  N0  74B
771=DU 24 2141  9505 RUSS RL  L1           0    0    0   0.00N   0.00E  n3 168B  an 358C  ds   9C
772=DU 26 2114  9505 RUSS RL  L1         652   39  102  59.63N  39.92E  N0  75B  N0  72A  AN 353C  FE 357C  AN 357C
773=DU 26 2311  9505 RUSS RL  L1         147   22  143  59.83N  30.56E  N1 118B  N2 140A  N1 120A
774=DU 25 2322  9680 RUSS RL  B6           0    0    0  62.89N  28.55E  N2 136B  N3 166B
775=DU 25 2110  9750 RUSS RL  L3         125   27  149  60.68N  30.81E  N2 137A  N2 139B  N0  71C  N2 137B
776=DU 25 2335  9750 RUSS RL  L3         179   89  136  48.93N  36.35E  N2 140B  NE  88B  N3 166C
777=DU  9 0905 11885 RUSS RL  B4        2292  186  113  52.46N  60.72E  NE  68B  AL  19C  NE  66B
778=DU 10 0941 11885 RUSS RL  B4        1054  110  112  56.69N  43.49E  AN 358C  LR  12C  FL   9C  N0  80B
779=DU 15 1231 15340 RUSS RL  L3         294   54  102  55.72N  34.92E  U2  62B  N0  88B  NE  70B
780=DU 14 0211  7295 TI   RL  L4           0    0    0  49.16N  32.75E  NE  89B  N3 165C
781=DU 18 0241  7295 TI   RL  L4           0    0    0  65.73N  37.79E  AN 356C  DS  13C
782=DU 14 0311  7295 UKR  RL  B4          72   27   96  59.14N  31.59E  NE  58B  U2  55A  N0  77A  N2 140B
783=DU 14 0445  7295 UKR  RL  B4          74   30  113  59.30N  30.80E  N0  77A  N2 140B  N1 122B
784=DU 16 0319  7295 UKR  RL  B4           0    0    0  11.11N  36.50E  N0 141A  N3 166B
785=DU 18 0336  7295 UKR  RL  B4           0    0    0  16.79S  47.85E  FE  17C  AN 336C
786=FA 20 0211  9510 ???? ????????????     0    0    0   0.00N   0.00E  an 325C  fe 311C  an 333C
787=FA 20 0451  9510 ???? ????????????     0    0    0  62.28N 175.78E  AN 289C  WP 343C
788=FA 24 1417  9510 ???? ????????????     0    0    0  33.07S  76.05E  GI  31C  FE 312C
789=FA 24 1038  9725 HUNG RFE B5           0    0    0  51.40N 134.01E  AN 292C  WP 318C
790=FA 22 1337  9520 RUSS RL  L2           0    0    0  41.31N 119.96E  DS 325C  AN 293C
791=FA 23 0241  9520 RUSS RL  P2           0    0    0  52.19N 145.73E  FE 311C  AN 285C
792=FA 23 1140  9520 RUSS RL  L2        1911  623   50  46.67N 125.34E  gi 152C  DS 323C  AN 294C  WP 313C
793=FA 23 1235  9520 RUSS RL  L2        1769  598   51  46.60N 128.63E  WP 313C  DS 315C  AN 293C
794=FA 23 1511  9520 RUSS RL  L2        1761 1018   14   4.30N  84.79E  FL  39C  AN 289C  DS 322C  WP 316C
795=FA 24 0440  9520 RUSS RL  B7        1904  680   50  40.52N 127.27E  DS 320C  AN 287C  WP 306C
796=FA 24 1220  9520 RUSS RL  L2        1438  439   53  51.14N 136.14E  WP 318C  AN 292C  FE 312C  DS 320C
797=FA 24 1403  9520 RUSS RL  L2           0    0    0   2.46S  89.71E  AN 296C  DS 324C
798=FA 24 2312  9520 RUSS RL  G8           0    0    0  47.04N 136.07E  AN 286C  WP 313C
799=FA 25 0018  9520 RUSS RL  P2           0    0    0  46.95N 138.65E  WP 313C  AN 284C
800=FA 25 1210  9520 RUSS RL  L2           0    0    0  48.42N 141.62E  DS 320C  WP 315C
801=FA 26 1305  9520 RUSS RL  L2           0    0    0  45.64N 151.34E  DS 314C  WP 313C
802=FA 26 1540  9520 RUSS RL  L2           0    0    0  45.06N 126.61E  DS 324C  WP 311C
803=FA 20 1711  9635 RUSS BBC CYPRUS    1366  648   30  21.58S  80.97E  AL  32C  DS 317C  FE 311C
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804=FA 22 1805  9635 RUSS BBC CYPRUS       0    0    0  46.21N 133.07E  WP 312C  FE 312C
805=FA 22 2010  9635 RUSS BBC CYPRUS       0    0    0  47.04N 136.34E  DS 321C  WP 313C
806=FA 24 1615  9635 RUSS BBC CYPRUS       0    0    0   0.00N   0.00E  an 290C  ds 320C  ki 317C
807=FA 24 1814  9635 RUSS BBC CYPRUS       0    0    0  11.98S  85.04E  AN 296C  DS 322C
808=FA 25 1916  9635 RUSS BBC CYPRUS       0    0    0  46.16N 130.80E  AN 289C  WP 312C
809=FA 10 1610  6160 UKR  VOA KAV 3        0    0    0   0.00N   0.00E  gi 153C  fe 308C  ds 327C
810=FA 12 1617  6160 UKR  VOA KAV 3     1319  467   55  50.15N 139.58E  DS 321C  WP 317C  AN 287C
811=FG 20 1541  9600 ???? ????????????     0    0    0   0.00N   0.00E  u2  86B  ne  78B
812=FG 10 2236  6010 RUSS DW               0    0    0  56.63N  30.07E  N0  89B  N2 147B
813=FG 13 2041  7105 RUSS VOA MUN 1        0    0    0  54.41N  21.51E  N0 110B  NE  71B
814=FG 17 0332  7105 RUSS VOA MUN 2        0    0    0  44.98N  38.80E  U2  90C  N0 110B
815=FG 19 2216  7270 RUSS VOA MUN 2     1105  129  128  46.40N  46.43E  N0 100B  U2  86B  N0  90C
816=FG 17 0303  7410 RUSS IBA              0    0    0   0.00N   0.00E  u2  88A  ne  86B
817=FG  8 1641 11740 RUSS VOA KAV 8        0    0    0   0.00N   0.00E  u2  85C  ne  74B
818=FG  9 1601 11740 RUSS VOA KAV 8        0    0    0  47.63N  45.34E  BK  83B  NE  84B
819=FG 11 1717 11945 RUSS BBC CYPRUS    3695  585  122  49.98N  25.44E  BE  45C  AL  34C  SS  42C  LR  52C  FL  38C
820=FG 24 0741 17725 RUSS RL  P1           0    0    0  48.13N  34.96E  U2  86B  N0 109B
821=FG 18 0331  7295 UKR  RL  B4           0    0    0  50.73S 166.38E  NE  90B  U2  87B
822=FG 14 1631 15415 UKR  VOA TAN 8     4399  112  108  49.61N  23.48E  U2  90C  FL  39C  PS  40C
823=FG 17 0401  7410 YIDD IBA              0    0    0  49.17N  32.49E  U2  85B  N0 110B
824=FL 18 0411  7180 AZ   RL  L2         256   74  126  47.32N  41.58E  N0 100B  U2  84A  N2 138B  ne  68B
825=FL  6 0403  5955 RUSS RL  HC         268   41  120  48.68N  38.72E  NE  85B  U2  84A  N0 103A  NE  85B  NE  84B
826=FL 17 0205  7105 RUSS VOA MUN 2        0    0    0  47.46N  39.27E  N1 130B  N0 105B
827=FL 15 2103  7120 RUSS BBC WOOF         0    0    0   0.00N   0.00E  n0 103A  be  50C
828=FL 19 2316  7280 RUSS VOA MUN 2        0    0    0  52.79N  34.66E  N1 130B  N3 160C
829=FL 17 0304  7410 RUSS IBA              0    0    0  51.69N  32.85E  N0 103B  N1 135B
830=FL 21 2141  9750 RUSS RL  L3        5312 1081  156   7.52N  73.50E  FL  35C  GI  10C  PS  37C
831=FL 26 1101 17725 RUSS RL  P1+P2      215   44  117  51.33N  31.55E  N0 105B  NE  80B  U2  85B  N0 105B
832=FL 26 1202 17725 RUSS RL  P1+P2        0    0    0  51.05N  32.66E  NE  83B  N0 105A
833=FL 22 1127 17895 RUSS RL  L4           0    0    0  46.29N  43.61E  N1 125B  U2  84B
834=FL 22 1245 17895 RUSS RL  L4           0    0    0  53.94N  23.88E  N0 108B  NE  74B
835=FL 15 1301 21630 RUSS BBC WOOF         0    0    0   0.00N   0.00E  u2  85C  ne  83B
836=FL 13 1035 21735 RUSS RL  G4B          0    0    0  45.29N  40.62E  U2  88B  N2 140B
837=FM  6 1911 11755 ???? ???????????? 1524  499   52  49.04N 133.83E  AN 292C  FE 308C  WP 315C
838=FM  7 1641  6160 UKR  VOA KAV 3     1599  496   52  50.66N 131.84E  WP 317C  AN 292C  FE 318C
839=FR 25 1405 17855 GEOR VOA TAN 1        0    0    0  44.36N  67.97E  NE  75B  N0  83B
840=FR 14 0102  7105 PASH VOA KAV 9        0    0    0  52.84N   9.62E  NE  76B  U2  78B
841=FR 18 0101  7105 PASH VOA KAV 9     3331  439  149  28.20N  83.68E  N0  85B  U2  75C  N2 100B
842=FR 16 0304  7275 PASH DW               0    0    0  53.47N  15.75E  NE  75B  U2  75B
843=FR 18 0301  7275 PASH DW               0    0    0  46.43N  56.15E  N0  90C  U2  76B
844=FR 21 2041  9660 RUSS RL  HD           0    0    0  53.32N  17.80E  U2  76B  NE  77B
845=FU 15 2043  7223 ???? ????????????     0    0    0  37.81N  83.80E  N2  95B  N0  77A
846=FU 14 2017  7250 ???? ????????????   259   51  103  55.13N  31.01E  U2  68B  N0  94B  U2  68B
847=FU 15 2011  7250 ???? ????????????  1286   40   87  54.49N  22.47E  NE  71B  U2  71B  U2  70B
848=FU 13 2011  7255 ARM  RL  L4        1895  856  172  36.81N  52.63E  WP 325C  AL  12C  AN 345C  FE  14C  BE  51C
849=FU 14 2015  7255 ARM  RL  L4        1442  299  126  45.02N  73.81E  NE  71B  AL  10C  LR  30C  NE  70B  WP 323C
850=FU 16 2042  7255 ARM  RL  L4         823  293  120  50.30N  59.32E  AL   9C  SS  36C  BE  27C  AN 352C  FE 357C  WP 324C
                                                                      U2  69B
851=FU 20 1824  9505 AZ   RL  L1        2617 1274    4  26.25N  58.56E  WP 324C  KI  28C  FE 355C
852=FU 21 1801  9505 AZ   RL  L1        1430  127  121  47.53N  66.28E  N0  80B  U2  69B  BK  71A  NE  75B  LR  19C
853=FU 10 0601 11855 BULG RFE G6        1725  792  163  32.53N  83.89E  N2 100C  WP 324C  DS 325C
854=FU 16 1916  7255 GEOR RL  L4         895  251  114  51.13N  53.20E  WP 325C  AN 354C  FE 357C  U2  70B
855=FU 19 1903  7255 GEOR RL  L4           0    0    0  31.50S 119.55E  NE  93B  N2  90C
856=FU 10 1731 11875 GEOR RL  L7+L8        0    0    0   0.00N   0.00E  bk  72B  ne  93B  n0 105C
857=FU 20 2104  9695 HUNG RFE G13+G14      0    0    0  54.38N  28.18E  NE  72B  N0 100B
858=FU 14 1915  7210 ROMA BBC WOOF         0    0    0  64.17N  71.80E  AN 338C  AL  10C
859=FU  7 1631  6085 RUSS BBC WOOF         0    0    0  55.13N  31.03E  U2  68C  NE  69B
860=FU 10 1512  6115 RUSS RL  HA           0    0    0  55.20N  41.48E  U2  66B  N0  85B
861=FU 11 0216  6135 RUSS RL  G1A          0    0    0  31.13N  80.80E  FE 340C  DS 350C
862=FU  6 0221  6160 RUSS VOA WOF 1        0    0    0   0.00N   0.00E  ds 276C  an 340C  al  10C
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863=FU  8 0205  6170 RUSS RL  P1          0    0    0  66.21N 157.17W  DS 335C  AN 331C
864=FU 12 0231  6170 RUSS RL  P1          0    0    0  46.13S 149.99E  NE  89B  N0  75B
865=FU 11 0031  6170 RUSS RL  P1          0    0    0   0.00N   0.00E  u2  69B  ne  94B  n0 101B
866=FU 11 0205  6170 RUSS RL  P1       2344  368  137  36.95N  76.68E  NE  78B  N0  82B  DS 356C  SS  41C
867=FU  6 0201  6170 RUSS RL  P1          0    0    0  48.27S 168.50E  NE  76B  U2  68B
868=FU  7 0041  6170 RUSS RL  P1          0    0    0  53.24N  26.92E  NE  77B  U2  75B
869=FU 12 0132  6170 RUSS RL  P1          0    0    0  26.53S 129.82E  NE  80B  N0  75B
870=FU 13 0231  7105 RUSS VOA MUN 2    1203  370  133  39.00N  59.80E  U2  83B  LR  35C  FE 344C  FL  45C  DS   3C  SS  38C
                                                                      AN 345C
871=FU 16 0341  7105 RUSS VOA MUN 2    2192  743  166  68.14N  63.21E  BE  18C  FE 357C  DS   4C
872=FU 17 0210  7105 RUSS VOA MUN 2    1580  815  175  39.71N  63.71E  FE 345C  WP 324C  AL   9C  AN 343C  SS  36C  LR  45C
873=FU 17 0335  7105 RUSS VOA MUN 2     899  318  125  46.54N  64.38E  SS  25C  NE  73B  WP 315C  AN 335C  DS   3C  DS   3C
                                                                      BE  58C
874=FU 18 0415  7105 RUSS VOA MUN 2     949  210  144  51.31N  68.51E  AN 329C  N2 100B  U2  60C
875=FU 19 0311  7105 RUSS VOA MUN 2    1142  455  133  43.50N  71.68E  U2  71B  DS 358C  AN 332C  AL   9C  ps 166C  be 167C
876=FU 15 0204  7145 RUSS RL  B8        952  223  129  43.14N  75.35E  NE  71B  AL   9C  AN 328C  DS   3C  WP 318C  U2  69A
877=FU 15 0341  7145 RUSS RL  B8          0    0    0  24.65N  55.45E  WP 323C  AN 337C
878=FU 14 2011  7220 RUSS RL  HB        341   59  105  54.45N  37.77E  NE  70B  NE  71B  N0  90B
879=FU 15 2025  7220 RUSS RL  HB          0    0    0  37.29N  80.70E  AN 320C  U2  71B
880=FU 15 2211  7220 RUSS RL  HB       1966  788  153  11.82N 106.84E  U2  69B  AN 287C  N0  75B
881=FU 16 2011  7220 RUSS RL  HB        892   73  104  52.76N  45.94E  U2  70B  BK  69B  FE 356C  NE  79B  AL   9C  LR  37C
                                                                      SS  36C  BE  24C  U2  68B  BK  69B
882=FU 16 2215  7220 RUSS RL  HB          0    0    0  46.00N  69.45E  U2  69B  N0  80B
883=FU 17 2212  7220 RUSS RL  HB          0    0    0  53.48N  35.88E  BK  71B  N2 140A
884=FU 18 1901  7220 RUSS RL  HB        322   67  101  54.36N  32.10E  N0 100C  NE  70B  FE 356C  WP 325C
885=FU 19 2211  7220 RUSS RL  HB          0    0    0  55.73N  33.01E  U2  66B  N0  90B
886=FU 17 0016  7255 RUSS RL  HB       1437  594  140  57.40N  31.72E  PS  39C  LR  33C  DS 359C  BE  40C  AN   2C
887=FU 18 2356  7255 RUSS RL  HB       3085 1125  170   2.78S  80.31E  LR  42C  AN 310C  AL  10C
888=FU 14 1635  7295 RUSS RL  HA        860  298  116  51.34N  64.38E  FE 357C  WP 325C  AN 340C  NE  67B
889=FU 17 1635  7295 RUSS RL  HA       1957  321   63  80.41N 111.03E  FE 348C  AN 351C  WP 325C
890=FU 14 2101  7410 RUSS IBA          2737  236  129  42.85N  78.16E  BK  69B  U2  68A  AL   9C
891=FU 16 2135  7410 RUSS IBA          2018  243  121  48.78N  65.81E  AL  11C  NE  69B  BE  34C  U2  69B
892=FU 20 1554  9520 RUSS RL  L2       2333 1038  175  30.65N  46.85E  AN 354C  WP 325C  KI  28C  GI  29C
893=FU 23 0301  9520 RUSS RL  P2       1016  155  106  54.26N  48.16E  U2  66B  NE  65C  BE  43C  LR  44C  SS  43C  PS  39C
                                                                      DS 354C  WP 315C
894=FU 20 1912  9530 RUSS VOA KAV 3      686   31   79  53.68N  13.65E  NE  71B  U2  73B  NE  71B
895=FU 22 0241  9555 RUSS RL  G1B       1881 1145    3  17.99N  94.47E  U2  73C  DS 353C  AN 290C
896=FU 20 1813  9600 RUSS BBC WOOF      1950  175  119  49.00N  61.99E  FL  37C  BE  27C  LR  20C  NE  71B  NE  73B  U2  69B
897=FU 21 2211  9670 RUSS VOA KAV10      414   36   83  53.70N  19.68E  BK  70B  NE  70B  NE  76B
898=FU 25 2235  9670 RUSS VOA KAV10        0    0    0  38.68N  85.51E  NE  70B  N0  75B
899=FU 21 2118  9680 RUSS RL  B6       4930  874  136  42.16N  46.11E  KI  23C  PS  35C  BE  46C  SS  42C
900=FU 20 2118  9690 RUSS VOA KAV 7    1741  327  146  39.26N  76.60E  BE  25C  LR  11C  SS  38C  N2 102B  U2  71B
901=FU 20 2211  9740 RUSS VOA KAV 7     955   78   98  53.06N  37.17E  BK  73B  BE  58C  GI  18C  LR  22C  SS  41C  U2  71B
902=FU 20 2011  9750 RUSS BBC WOOF      1110  385  150  33.12N  82.49E  GI  14C  WP 324C  AN 304C  N2  98B  N0  85C  U2  73B
903=FU  9 2131 11915 RUSS RL  P6       1647  993    8  21.46N  83.28E  LR  15C  SS  47C  WP 321C  DS   5C  AN 288C
904=FU 10 2208 11915 RUSS RL  P6       2252  299  125  46.58N  74.47E  DS 357C  NE  69B  NE  68B
905=FU  9 2041 11915 RUSS RL  P6       1402  919  172   5.78N  74.49E  WP 322C  AL  11C  DS   3C  SS  45C  AN 289C  BE  74C
906=FU  6 0854 11970 RUSS RL  P5          0    0    0  39.65N  73.77E  FL  21C  SS  32C
907=FU  8 0819 11970 RUSS RL  P5          0    0    0   0.00N   0.00E  be  37C  f1  12C  lr  20C
908=FU 16 0744 15370 RUSS RL  HD          0    0    0  51.95N  58.07E  NE  69B  N0  80B
909=FU 18 1301 15445 RUSS RL  P4          0    0    0  54.01N  44.18E  N0  86B  NE  70B
910=FU 14 2242  7245 UKR  RL  L5+L6      182   90  113  53.48N  36.13E  N2 140C  NE  74B  AL   9C
911=FU 17 2101  7245 UKR  RL  L5+L6        0    0    0  54.62N  27.77E  U2  70C  NE  71B
912=FU 13 2134  7245 UKR  RL  L5+L6     1144  274  121  45.65N  56.78E  NE  80B  WP 324C  AN 346C
913=FU 20 1916  9565 UKR  RL  P2        603   29   78  53.61N  12.76E  NE  71B  NE  70B  U2  73B
914=FU 20 2146  9565 UKR  RL  P2        857   86  106  53.92N  47.05E  NE  69B  N0  84C  NE  70B  NE  69B
915=FU 26 2211  9565 UKR  RL  P2          0    0    0   0.00N   0.00E  n0  80B  n0  75B  a1 160C
916=FU 26 0317  9625 UKR  RL  G13+G14     0    0    0   0.00N   0.00E  lr 175C  ps  34C  wp 323C
917=FU 21 0235  9760 UKR  VOA TAN 5     2095  270  126  43.46N  67.40E  NE  75B  DS   1C  LR  25C  NE  78B
918=G7 16 0819  7180 ???? ????????????  3620  573  114  48.68N  14.14E  BE  54C  FL  43C  SS  44C  LR  48C
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919=GI 16 0811  7155 ???? ????????????     0    0    0  40.37N  70.62E  WP 324C  FE 350C
920=GI 13 0641  7191 ???? ????????????     0    0    0  49.30N  41.74E  N2 135A  N3 150B
921=GI  8 1216 11870 ???? ????????????     0    0    0  15.41S  91.29E  FL  38C  LR  27C
922=GI 14 1042 15320 ???? ????????????     0    0    0  56.86N  37.23E  N0  83A  N1 117B
923=GI 16 0205  7155 EST  RFE G2          533  169  131  54.92N  56.31E  U2  62B  N2 109C  AL   9C  DS   4C
924=GI  8 0631  5955 POLI VOA KAV 9       196   25   66  55.20N  17.90E  U2  64B  BK  53A  NE  66B  SS  42C
925=GI 14 1701  7190 POLI RFE B3          0    0    0   8.20N 113.95E  U2  66B  NE  70B
926=GI 13 0633  7190 POLI RFE B3          812   47   83  55.07N  23.10E  NE  68B  FL  37C  AL  37C  LR  39C  PS  42C  SS  41C
                                                                       BE  36C  NE  68B
927=GI 14 0805  7190 POLI RFE B3         1384  834  138  55.79N  26.34E  AN   3C  SS  38C  LR  35C
928=GI 11 1132  7190 POLI RFE B3          125   42  149  54.93N  37.62E  n0  80A  N2 135A  NE  69B  LR  40C  PS  36C
929=GI  7 0311  6150 RUSS VOA MUN 4       357   59   98  57.45N  39.05E  NE  61B  N0  80B  NE  62B
930=GI 15 1207  7220 RUSS RL  L5+L6        0    0    0   0.00N   0.00E  n2 133B  a1  17C
931=GI 16 0909  7220 RUSS RL  L5+L6        983  581  147  70.45N  35.14E  LR  36C  AN 355C  BE  15C
932=GI 14 0611  7220 RUSS RL  G2B         140   35  113  56.75N  37.56E  ne  90B  U2  63C  NE  64B  N0  83A  N1 117B
933=GI 14 0701  7220 RUSS RL  L5+L6       1174  118   96  55.62N  35.47E  U2  66B  bk 959C  BE  36C  LR  38C  PS  23C  SS  38C
                                                                       FL  36C
934=GI 14 1240  7220 RUSS RL  L5+L6       1124  593  144  68.74N  24.58E  AL  27C  AN   2C  LR  22C
935=GI 14 0840  7220 RUSS RL  L5+L6        778   65   81  54.92N  21.32E  AL  37C  AN   5C  SS  42C  FL  39C  LR  37C  NE  68B
936=GI 21 1304  9520 RUSS RL  L2           241   36  107  56.25N  35.82E  NE  66B  U2  63B  PS  30C  AL  27C  LR  38C  N0  86A
937=GI 22 1314  9520 RUSS RL  L2           0    0    0  58.81N  10.74E  BE  43C  N0  88A
938=GI 23 1231  9520 RUSS RL  L2           945   52  110  56.62N  32.77E  N0  87B  SS  34C  KI  38C  BE  32C  AN 358C  AL  32C
                                                                       LR  35C  SS  35C  N0  87B  BE  32C
939=GI 26 1301  9520 RUSS RL  L2            57   21  138  56.08N  37.30E  U2  64B  NE  63B  N0  86A  N1 120A  n2 125A  N3 152A
                                                                       N1 118A
940=GI 15 0911 15325 RUSS VOA PHT 3        0    0    0  54.53N  10.71E  U2  64C  N0 145C
941=GI 15 1031 15325 RUSS VOA PHT 3        719  121  108  57.24N  56.97E  U2  67B  N0  64B  BK  60B  AN 340C
942=GI 17 0901 15325 RUSS VOA PHT 3       1827  177  120  48.14S 175.16E  BK  74B  BK  74B  u2  66A  NE  61B  an   3C
943=GI 14 1043 15325 RUSS VOA PHT 3        0    0    0  56.86N  37.23E  N0  83A  N1 117B
944=GI 21 1035 17750 RUSS RL  HC           0    0    0  56.98N  50.49E  U2  60C  AL  23C
945=GI 25 1101 17750 TI   RL  HC           0    0    0   0.00N   0.00E  u2  66B  n0 105C  ne  80B
946=GM 22 0040  9555 RUSS RL  G1B          0    0    0  46.15N 130.33E  WP 312C  DS 323C
947=GM 22 0110  9725 TB   RL  P5          1624  446   52  53.79N 131.22E  DS 330C  WP 317C  FE 333C  AN 292C
948=GM 22 0040  9660 TI   RL  HD           0    0    0  35.68N  63.58E  SS  41C  FE 355C
949=GR 13 1641  7110 ???? ????????????     0    0    0  61.41N 174.60W  AN 282C  DS 326C
950=GR 13 1742  7110 ???? ????????????   152   51   16  58.36N 151.65W  AN 288C  DS 326C  FE 307C
951=GR 14 1711  7110 ???? ????????????     0    0    0  41.08N 125.08E  AN 289C  DS 322C
952=GR 13 1811  7110 ???? ????????????     0    0    0  61.08N 168.76E  AN 288C  DS 326C
953=GR 13 1841  7160 ???? ????????????     0    0    0   0.00N   0.00E  an 288C  ds 326C  fe 309C
954=GR 15 0755  7210 ???? ????????????     0    0    0  47.80N 138.49E  WP 314C  AN 285C
955=GR 14 0948  7210 ???? ????????????  1557  544   53  47.82N 133.49E  WP 314C  AN 289C  DS 321C
956=GR 23 2316  9730 ???? ????????????     0    0    0  51.19N 138.12E  WP 318C  AN 289C
957=GR 24 2211  9730 ???? ????????????     0    0    0   0.00N   0.00E  an 290C  a1 156C
958=GR 13 1440  7210 PASH VOA KAV 9       1524  507   53  50.49N 134.21E  WP 317C  DS 324C  AN 291C
959=GR 15 1935  7170 RUSS VOA KAV 5        0    0    0  47.57S  59.85E  AN 295C  FE 310C
960=GR 13 1535  7170 RUSS VOA KAV 5       1114  437   26  42.15S  69.67E  AN 290C  DS 326C  FE 311C
961=GR 14 1841  7170 RUSS VOA KAV 5        0    0    0  40.50S  69.96E  AN 292C  FE 309C
962=GR 23 1710  7170 RUSS VOA KAV 5        553   49  150  46.06N 120.25W  DS 321C  AN 288C  KI 320C  FE 309C
963=GR 13 1810  7170 RUSS VOA KAV 5       5389  201   65  59.18N 162.23E  FE 311C  AN 287C  DS 326C
964=GR 16 0649  7220 RUSS RL  G2B          0    0    0  48.71N 136.94E  WP 315C  FE 312C
965=GR 16 0740  7220 RUSS RL  L5+L6        0    0    0  48.58N 139.40E  DS 321C  WP 315C
966=GR 14 0908  7220 RUSS RL  L5+L6        0    0    0  47.94N 131.88E  FE 314C  WP 314C
967=GR 13 0610  7220 RUSS RL  G2B          0    0    0  50.63N 144.07E  DS 321C  WP 318C
968=GR 19 0805  7220 RUSS RL  L5+L6       1455  466   52  48.74N 135.64E  AN 289C  WP 315C  FE 310C  DS 323C
969=GR 19 0940  7220 RUSS RL  L5+L6        0    0    0   3.85N 101.64E  AN 288C  FE 310C
970=GR 13 0910  7220 RUSS RL  L5+L6        0    0    0  51.27N 136.79E  AN 290C  WP 318C
971=GR 25 1605  7220 RUSS RL  L5+L6       1614  536   52  49.55N 131.96E  DS 322C  WP 316C  AN 292C
972=GR 15 1905  7410 RUSS IBA              836  235   63  57.04N 159.32E  WP 330C  FE 310C  AN 284C
973=GR 20 2138  9009 RUSS IBA             1337  453   55  51.62N 139.25E  DS 316C  AN 290C  WP 319C
974=GR 21 1206  9520 RUSS RL  L2          1320  294   52  52.75N 138.66E  AN 292C  DS 323C  FE 311C  WP 320C  DS 322C  AN 292C
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												FE 312C					
975=GR	21	1305	9520	RUSS	RL	L2	0	0	0	53.05N	141.50E	AN 289C	DS 324C				
976=GR	22	1340	9520	RUSS	RL	L2	1530	511	53	50.27N	134.03E	WP 317C	DS 318C	AN 292C			
977=GR	23	0738	9520	RUSS	RL	HC	0	0	0	52.95N	140.52W	DS 323C	KI 321C				
978=GR	23	1140	9520	RUSS	RL	L2	0	0	0	0.00N	0.00E	gi 152C	ds 315C	wp 340C			
979=GR	24	1211	9520	RUSS	RL	L2	1266	451	54	47.96N	129.20E	FE 311C	WP 313C	DS 320C	FE 315C	AN 295C	WP 315C
980=GR	25	1110	9520	RUSS	RL	L2	0	0	0	29.86N	116.12E	FE 312C	DS 320C				
981=GR	26	0810	9520	RUSS	RL	HC	0	0	0	47.90N	151.56E	DS 316C	WP 316C				
982=GR	26	1340	9520	RUSS	RL	L2	0	0	0	0.00N	0.00E	fe 333C	ds 325C	an 296C			
983=GR	20	2316	9555	RUSS	RL	G7	1365	494	54	48.69N	138.30E	DS 322C	WP 315C	AN 286C			
984=GR	21	0011	9555	RUSS	RL	G1B	0	0	0	34.31N	122.80E	FE 310C	AN 286C				
985=GR	22	2241	9740	RUSS	VOA	KAV 7	1648	543	50	47.18N	130.85E	WP 313C	FE 309C	AN 292C			
986=GR	24	2241	9740	RUSS	VOA	KAV 7	0	0	0	0.00N	0.00E	an 289C	lr 160C	al 155C	wp 314C		
987=GR	9	2235	11770	RUSS	RL	B3	1459	539	53	46.32N	136.09E	DS 322C	AN 285C	WP 312C			
988=GR	11	0143	11770	RUSS	RL	G7	910	302	51	46.83N	132.68E	AN 291C	DS 324C	WP 312C	FE 310C	WP 313C	FE 311C
												AN 288C	FE 311C	AN 288C	WP 313C		
989=GR	12	0010	11770	RUSS	RL	G7	1515	486	51	47.85N	134.13E	FE 311C	AN 289C	DS 322C	WP 314C		
990=GR	6	2210	11770	RUSS	RL	B3	0	0	0	48.57N	139.62E	AN 285C	WP 315C				
991=GR	12	2140	11770	RUSS	RL	B3	1728	705	69	48.74N	137.79E	FE 311C	WP 315C	DS 323C			
992=GR	12	2340	11770	RUSS	RL	B3	1857	738	67	47.14N	135.05E	FE 311C	WP 313C	DS 323C			
993=GR	7	2343	11770	RUSS	RL	B3	1378	474	53	48.62N	137.70E	AN 287C	FE 310C	WP 315C			
994=GR	12	0310	11885	RUSS	RL	P5	0	0	0	47.04N	130.54E	AN 290C	WP 313C				
995=GR	8	0620	11970	RUSS	RL	L7+L8	0	0	0	0.00N	0.00E	ds 326C	an 348C				
996=GR	9	0631	11970	RUSS	RL	L7+L8	0	0	0	48.81N	132.97E	AN 290C	WP 315C				
997=GR	10	0110	11885	TI	RL	P4	0	0	0	48.80N	130.07E	WP 315C	AN 292C				
998=GR	6	0141	11885	TI	RL	P4	10825	364	53	54.56N	144.13E	AN 290C	DS 325C	FE 312C			
999=GR	8	0146	11885	TI	RL	P4	1599	538	53	49.08N	132.35E	WP 315C	AN 290C	DS 328C			
1000=GR	24	1711	9565	UKR	RL	HD	856	578	14	15.24S	89.68E	FL 41C	DS 323C	KI 318C	FE 313C		
1001=GR	24	2009	9740	UKR	VOA	PHT12	6360	232	56	55.80N	149.18E	FE 314C	DS 323C	AN 287C	gi 62C	AN 289C	DS 323C
1002=GU	19	2107	7105	RUSS	VOA	MUN 1	0	0	0	60.77N	98.16E	AN 322C	WP 331C				
1003=GV	10	1658	11855	????	????????????		0	0	0	31.81N	43.57E	AL 41C	FL 46C				
1004=HM	6	0944	11884	????	????????????		0	0	0	58.97N	27.13E	N2 150B	NO 80A				
1005=HM	20	0915	17720	????	????????????		0	0	0	58.01N	43.43E	N2 120B	NO 76B				
1006=HM	20	2232	9625	BR	RL	G8	458	65	106	54.09N	42.46E	NO 87B	NE 71B	NE 71B	NE 69B		
1007=HM	20	2142	9530	RUSS	VOA	KAV 3	564	79	105	55.86N	43.72E	NO 81B	NE 64B	U2 67B			
1008=HM	9	2113	11935	RUSS	RL	P3	0	0	0	60.35N	58.16E	DS 6C	WP 343C				
1009=HM	20	1231	17855	RUSS	VOA	KAV 3	2046	159	123	47.59N	73.19E	BK 69A	NE 64B	NO 75B			
1010=HM	23	1201	17865	RUSS	VOA	KAV 7	0	0	0	55.58N	28.10E	BK 62B	NE 67B				
1011=HM	13	1034	21735	RUSS	RL	G4B	0	0	0	56.93N	38.44E	NE 63B	NO 82B				
1012=HM	19	0931	21745	RUSS	RL	G3A	0	0	0	55.32N	19.05E	U2 66B	NE 64B				
1013=HM	18	0231	7245	TB	RL	L5+L6	0	0	0	50.40N	61.54E	NO 80B	NE 70B				
1014=HP	26	0220	9680	ARM	RL	L1	0	0	0	41.45N	41.65E	U2 94B	N2 141C				
1015=HP	26	2331	9555	RUSS	RL	G7	0	0	0	43.60S	153.69E	U2 75C	NE 80C				
1016=HP	20	0632	17760	RUSS	RL	L4	0	0	0	0.00N	0.00E	u2 105C	ne 68B				
1017=HP	23	0701	17895	RUSS	RL	G15+G16	218	84	124	46.11N	36.26E	BK 92B	U2 92B	N3 160B			
1018=IG	6	1705	6085	RUSS	BBC	WOOF	0	0	0	45.16N	128.19E	AN 290C	WP 311C				
1019=IG	11	1510	6105	RUSS	RL	L11	2315	50	99	62.24N	159.95W	DS 327C	AN 289C	DS 327C	AN 286C		
1020=IG	6	1540	6105	RUSS	RL	L11	0	0	0	51.40N	134.01E	AN 292C	WP 318C				
1021=IG	6	1441	6105	RUSS	RL	L11	0	0	0	51.24N	137.30E	DS 324C	WP 318C				
1022=IG	12	1516	6115	RUSS	RL	HA	0	0	0	52.82N	146.96E	AN 285C	DS 322C				
1023=IG	24	1535	6115	RUSS	RL	HA	0	0	0	54.85N	152.52E	WP 325C	FE 311C				
1024=IG	9	0410	6150	RUSS	VOA	MUN 4	0	0	0	0.00N	0.00E	ds 320C	ps 158C				
1025=IG	16	1911	7270	RUSS	VOA	MUN 2	0	0	0	39.48N	124.81E	AN 288C	FE 312C				
1026=IG	17	1905	7270	RUSS	VOA	MUN 2	0	0	0	41.13S	68.51E	AN 293C	FE 311C				
1027=IG	18	1808	7270	RUSS	VOA	MUN 2	1012	260	64	58.97N	153.60E	FE 311C	WP 330C	AN 292C			
1028=IG	14	1911	7270	RUSS	VOA	MUN 2	0	0	0	42.59S	67.05E	FE 310C	AN 293C				
1029=IG	22	2213	9520	RUSS	RL	B7	0	0	0	48.81N	132.97E	AN 290C	WP 315C				
1030=IG	21	0019	9555	RUSS	RL	G1B	0	0	0	57.83N	158.19E	DS 324C	AN 286C				
1031=IG	22	0241	9555	RUSS	RL	G1B	1592	524	51	47.92N	132.17E	WP 314C	AN 290C	FE 313C			
1032=IG	23	0252	9555	RUSS	RL	G1B	1494	474	52	48.71N	134.62E	WP 315C	AN 289C	DS 322C	FE 313C		

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1033=IG 24 0040  9555 RUSS RL  G1B      1366  451   53  48.62N 138.03E  AN 287C  FE 309C  DS 322C  WP 315C  a1 154C
1034=IG 21 0206  9750 RUSS RL  L3        933  242   73  64.95N 148.99E  WP 314C  DS 322C  AN 326C  an 337C  FE 314C  WP 315C
1035=IG 22 0115  9750 RUSS RL  L3       1726  704   69  47.87N 138.35E  DS 322C  WP 314C  FE 310C
1036=IG 10 0051 11915 RUSS RL  P6       1451  513   54  48.59N 136.08E  DS 320C  WP 315C  AN 288C
1037=IG 12 0105 11915 RUSS RL  P6       1022  327   53  49.91N 135.88E  AN 290C  DS 320C  FE 312C  WP 316C  FE 312C  AN 290C
                                                                        WP 317C
1038=IG  8 0141 11915 RUSS RL  P6          0    0    0  47.94N 133.16E  AN 289C  WP 314C
1039=IG  7 0205 11915 RUSS RL  P6       1598 1124   20  13.37S  76.46E  FE 308C  AN 291C  WP 313C  BE  59C
1040=IG  8 0041 11915 RUSS RL  P6       1404  495   54  49.38N 137.28E  AN 288C  WP 316C  DS 320C
1041=IG  7 2340 11915 RUSS RL  P6          0    0    0  36.70N 123.56E  FE 311C  AN 287C
1042=IG 11 0010 11915 RUSS RL  P6          0    0    0  27.46S  81.15E  AN 291C  FE 311C
1043=IG  8 0310 11935 RUSS RL  P3          0    0    0  49.66N 134.22E  WP 316C  AN 290C
1044=IG  7 2310 11935 RUSS RL  P3          0    0    0  50.48N 135.49E  AN 290C  WP 317C
1045=IG 19 0041  7295 TI   RL  L4          0    0    0  39.48N 124.81E  AN 288C  FE 312C
1046=IG 10 0212 11885 TI   RL  P4       1812  573   49  47.31N 126.82E  AN 291C  FE 321C  WP 313C
1047=IG  6 0141 11885 TI   RL  P4      10825  364   53  54.56N 144.13E  AN 290C  DS 325C  FE 312C
1048=IG 10 0110 11885 TI   RL  P4       1444  466   52  48.56N 135.93E  AN 289C  WP 315C  DS 320C  FE 310C
1049=IN 20 1541  9565 ARM  VOA WOF 7     1168  189   69  55.59N  46.05W  FL  43C  LR  37C  AL  48C
1050=IN 24 1616  9635 RUSS BBC CYPRUS    2716  358   91  66.02N  15.03W  LR  36C  AL  27C  PS  30C  GI  33C
1051=IN 24 1716  9635 RUSS BBC CYPRUS    8062  811  151  21.84N  63.91E  KI  21C  AL  32C  BE  41C  LR  35C  PS  36C  FL  41C
1052=K7 23 1911  9550 ???? ????????????? 6095 1146  156  25.33N  43.77E  DS  30C  AL  43C  FE  12C
1053=K7 24 1852  9550 ???? ?????????????    0    0    0  45.62N  40.35E  PS  35C  FL  37C
1054=K7 23 2119  9555 BULG RFE G1          0    0    0  39.66N  33.02E  FL  45C  AL  43C
1055=K7 24 0605  9555 BULG RFE G1          0    0    0  10.85N  41.89E  N0 135B  N3 160C
1056=K7  9 1741 11825 BULG RFE G2       4130  257   82  54.93S 166.23E  U2 115C  NE 111B  NE 111B
1057=K7 15 1811 15115 BULG RFE G7          0    0    0  54.98S 165.31E  NE 111B  BK 115B
1058=K7 19 1003 15330 BULG DW              0    0    0  46.23N  21.97E  NE 112B  N0 135B
1059=K7 15 1001 15330 BULG DW              0    0    0  46.23N  21.97E  N0 135C  NE 112B
1060=K7 25 1732 17725 BULG RFE G2B         0    0    0  45.35N  23.73E  NE 112B  N0 133B
1061=K7 22 0940  9675 RUSS VOA PHT 8       0    0    0  45.15N  22.92E  N0 135B  N1 160B
1062=K7 23 1001  9675 RUSS VOA PHT 8       0    0    0  48.04N  20.49E  N2 172B  NE 107B
1063=K7 12 0701 11970 RUSS RL  L7+L8     102   47  105  54.23N  17.62E  N0 120B  u2 120C  NE  70B  AN 355C
1064=K7  7 0931 11970 RUSS RL  P5          0    0    0   0.00N   0.00E  u2 117C  ne  69B  an   6C
1065=K7 10 0901 11970 RUSS RL  P5       1353   65  126  44.98N  24.45E  U2 104C  AN   4C  NE 112B
1066=K7 11 0933 11970 RUSS RL  P5          0    0    0  50.89N  28.53E  NE  86B  AN   1C
1067=K7  6 0905 11970 RUSS RL  P5          0    0    0  47.46N  32.80E  NE  94B  AN 358C
1068=K7 14 0742 15445 RUSS RL  P4          0    0    0  55.76S 158.46E  U2 115C  N0  90B
1069=K7 25 0801 17750 RUSS RL  P2          0    0    0  54.91S 123.33E  N0 111B  U2 118A
1070=KB 13 1541  7160 ???? ????????????? 1283  394   55  52.53N 140.74E  AN 290C  DS 322C  FE 311C  WP 320C
1071=KB 14 1518  7160 ???? ???????????????4556  892   33  30.40N 112.72E  FE 314C  DS 323C  AN 292C
1072=KB 13 1841  7160 ???? ???????????????9948  855   34  31.88N 116.02E  FE 311C  AN 291C  DS 322C
1073=KB 14 1811  7160 ???? ?????????????    0    0    0  27.63S  82.98E  FE 308C  AN 289C
1074=KB  8 0213 11775 ???? ?????????????    0    0    0  43.55N 131.71E  AN 286C  WP 309C
1075=KB 13 2110  7285 CZEC DW              0    0    0  48.57N 139.62E  WP 315C  AN 285C
1076=KB 12 1140  6105 RUSS RL  L11         0    0    0  50.55N 159.67E  AN 272C  WP 322C
1077=KB  9 1305  6105 RUSS RL  L11         0    0    0  51.45N 131.09E  AN 294C  WP 318C
1078=KB 21 1736  6105 RUSS RL  L11      1616  677   71  50.14N 140.35E  DS 321C  WP 317C  FE 312C
1079=KB 10 1340  6105 RUSS RL  L11     21079  928   32  30.36N 113.30E  DS 322C  KI 328C  AN 293C
1080=KB 11 1841  6115 RUSS RL  L11         0    0    0  52.50N 141.93E  AN 288C  FE 313C
1081=KB 12 1519  6115 RUSS RL  HA        954  211   58  55.12N 151.84E  gi 147C  FE 312C  AN 285C  DS 323C  DS 323C  FE 312C
                                                                        WP 325C  AN 285C
1082=KB 10 1611  6115 RUSS RL  L1       1726  547   52  50.45N 129.18E  gi 146C  AN 295C  DS 323C  WP 317C
1083=KB  9 1510  6115 RUSS RL  HA       1332  458   55  51.16N 139.33E  AN 288C  DS 324C  WP 318C
1084=KB 20 1635  6115 RUSS RL  L1       1613  675   70  51.98N 139.60E  DS 325C  WP 319C  FE 313C
1085=KB 11 1535  6115 RUSS RL  HA          0    0    0  41.08N 125.08E  AN 289C  DS 322C
1086=KB 11 1440  6115 RUSS RL  HA          0    0    0  29.16N 112.68E  AN 291C  DS 322C
1087=KB 10 1511  6115 RUSS RL  HA       1038  331   60  55.40N 149.78E  gi 147C  WP 325C  DS 323C  AN 287C
1088=KB 10 1711  6115 RUSS RL  L11         0    0    0   0.00N   0.00E  an 291C  gi 147C
1089=KB 12 1611  6115 RUSS RL  L1       1015  304   62  56.84N 151.58E  DS 326C  AN 288C  WP 327C
1090=KB 11 1606  6115 RUSS RL  L1      11197  382   51  53.86N 142.66E  FE 316C  DS 322C  AN 289C
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1091=KB 12 0737  6170 RUSS RL  L2          0    0    0   0.00N   0.00E  an   5C  ds 321C
1092=KB 16 0643  7220 RUSS RL  G2B         0    0    0  47.91N 135.63E  WP 314C  FE 312C
1093=KB 16 0740  7220 RUSS RL  L5+L6        0    0    0  48.58N 139.40E  DS 321C  WP 315C
1094=KB 16 1238  7220 RUSS RL  L5+L6        0    0    0   0.00N   0.00E  al 153C  an 291C
1095=KB 13 0610  7220 RUSS RL  G2B      1559  662   72  50.84N 141.75E  FE 312C  WP 318C  DS 321C
1096=KB 17 1340  7220 RUSS RL  L5+L6     1881  101   77  60.71N 177.15W  FE 312C  AN 280C  DS 325C
1097=KB 14 0635  7220 RUSS RL  G2B      1528  462   52  50.49N 133.69E  DS 322C  AN 293C  WP 317C  FE 312C
1098=KB 18 1110  7220 RUSS RL  L5+L6        0    0    0    .82N  97.86E  AN 290C  FE 312C
1099=KB 19 0611  7220 RUSS RL  G2B      1518  525   53  48.78N 134.40E  AN 289C  WP 315C  DS 323C
1100=KB 19 1205  7220 RUSS RL  L5+L6        0    0    0  52.88N 138.13E  WP 320C  AN 291C
1101=KB 19 1610  7220 RUSS RL  L5+L6        0    0    0   0.00N   0.00E  ds 323C  fe 311C  an 294C
1102=KB 15 0615  7220 RUSS RL  G2B          0    0    0   0.00N   0.00E  an 358C  fe 312C  wp 316C
1103=KB 15 1617  7220 RUSS RL  L5+L6        0    0    0   0.00N   0.00E  an 289C  gi 147C
1104=KB 14 0709  7220 RUSS RL  L5+L6     1430  465   53  50.41N 136.31E  AN 290C  FE 312C  WP 317C
1105=KB 15 0740  7220 RUSS RL  L5+L6     2406 1218   23  19.46N  83.91E  WP 315C  PS  27C  AN 294C
1106=KB 13 1110  7220 RUSS RL  L5+L6        0    0    0  54.79N 149.73E  DS 323C  AN 286C
1107=KB 15 1208  7220 RUSS RL  L5+L6        0    0    0   8.57S  90.92E  AN 292C  LR  23C
1108=KB 25 1607  7220 RUSS RL  L5+L6     2112  647   48  47.81N 120.51E  WP 314C  DS 340C  AN 295C
1109=KB 14 1110  7220 RUSS RL  L5+L6     1476  515   53  48.93N 135.44E  WP 315C  AN 288C  DS 325C
1110=KB 19 0435  7270 RUSS VOA KAV 9        0    0    0  11.20N  98.64E  AN 294C  DS 323C
1111=KB 20 0224  9520 RUSS RL  P2       1444  486   52  48.73N 135.95E  AN 288C  FE 312C  WP 315C
1112=KB 24 1710  9600 RUSS BBC WOOF     1543  636   68  48.62N 140.83E  WP 315C  KI 319C  DS 322C  FE 312C
1113=KB 20 1010  9675 RUSS VOA PHT 8        0    0    0   0.00N   0.00E  wp 323C  ps 155C  an 293C
1114=KB 24 0211  9770 RUSS VOA TAN 1        0    0    0  48.50N 136.75E  AN 287C  DS 322C
1115=KD  8 2142  5950 ???? ???????????? 8598  749  130  46.82N  30.55E  AL  39C  PS  41C  FL  40C  LR  42C
1116=KD 10 0111  5950 ???? ????????????     0    0    0  40.22N  58.31E  SS  40C  KI  19C
1117=KD 18 0611  7185 ???? ????????????     0    0    0  56.44N  36.30E  N0  85A  N2 135A
1118=KD 12 0718 11945 ???? ????????????   267   56  105  55.45N  29.28E  AN 357C  lr 141C  BE  18C  U2  67B  N0  95B
1119=KD 11 0941 11975 ???? ????????????     0    0    0  12.22S  89.01E  BE  37C  FL  38C
1120=KD  6 2241  5955 BR   RL  P1       1568  268  145  22.28S  96.49E  AL  10C  FL  38C  BE  15C
1121=KD  9 2231  5955 BR   RL  P1        385   69  107  55.05N  37.62E  NE  69B  N0  88B  BE  30C  FL  45C  PS  46C  SS  34C
1122=KD 10 1831  5955 BR   RL  HC          0    0    0   0.00N   0.00E  n0  85B  bk  60B  ne  82B
1123=KD 10 2124  5955 EST  RFE P1       2656  581  106  56.63N   4.93E  SS  35C  AL  41C  LR  43C
1124=KD  6 0235  5955 LAT  RFE G3A         0    0    0  55.41N  32.65E  U2  67B  NE  68B
1125=KD 16 0831 15185 PASH DW            0    0    0  54.16N  12.61E  U2  69B  NE  64B
1126=KD 18 0831 15185 PASH DW          451  133  131  51.81N  60.81E  N0  85C  N2 105B  NE  68B  AN 348C  U2  65B
1127=KD  9 1643  5970 POLI RFE B6          0    0    0   0.00N   0.00E  n2 143C  n0 102C  u2  67B
1128=KD 11 1631  5970 POLI RFE B6        310   27   77  55.10N  23.16E  U2  68B  BK  61A  bk  69A  NE  68B
1129=KD 11 2131  6125 POLI BBC WOOF        0    0    0  52.43N  33.68E  BK  75B  NE  78B
1130=KD  9 2131  6125 POLI BBC WOOF        0    0    0  48.17S 174.17E  BK  76B  NE  64B
1131=KD  6 0631  6160 POLI VOA WOF 1       62   22   97  56.60N  31.87E  AN 353C  DS 310C  LR  35C  PS  33C  SS  38C  U2  67A
                                                                        N2 148B  N0  87B  BK  60A  NE  65B  N0  84A
1132=KD  7 0612  6160 POLI VOA WOF 1        0    0    0  55.16N  24.32E  NE  68B  U2  68B
1133=KD 16 0611  7190 POLI RFE B3        928   99  113  53.21N  52.56E  U2  66A  BE  12C  LR   8C  N0  87B
1134=KD 16 0702  7190 POLI RFE B3          0    0    0  54.97N  46.57E  N0  82B  NE  67B
1135=KD 18 0611  7190 POLI RFE B3        911   76   98  56.04N  41.16E  U2  64A  DS   8C  BE  33C  FL  32C  LR  41C  FE   8C
1136=KD 19 0641  7190 POLI RFE B3       1508  590  139  55.61N  26.74E  AN   2C  DS  18C  fe 310C  PS  37C  LR  42C  FL  26C
                                                                        GI  29C
1137=KD 19 1631  7190 POLI RFE B3        404   36   73  54.60N  19.60E  BK  60B  BK  60B  NE  69B
1138=KD 20 1501  9660 POLI BBC WOOF      537   84  108  53.44N  45.62E  BK  72B  NE  68B  N0  86B
1139=KD 22 1502  9660 POLI BBC WOOF        0    0    0  53.70N  40.17E  N0  90B  NE  72B
1140=KD  7 1101 11725 POLI RFE B1        224   26   70  55.20N  19.60E  U2  65B  NE  68B  BK  56A  FL  40C  LR  30C  PS  34C
                                                                        SS  33C
1141=KD  8 1317 11725 POLI RFE B1       6283  844  139  49.21N  53.44E  SS  36C  BE  31C  FL  30C  PS  29C
1142=KD 11 0901 11725 POLI RFE B1          0    0    0   0.00N   0.00E  bk  68A  n0  83A  ne  60B
1143=KD 11 1331 11725 POLI RFE B1        311   47   86  57.56N  37.81E  N0  80C  BK  58A  FL  31C  SS  43C
1144=KD  8 1231 11725 POLI RFE B1        248   59  100  56.17N  47.11E  N1 105C  BK  63A  NE  62B  LR  31C  FL  26C  NE  62B
1145=KD  6 1316 11725 POLI RFE B1       3246  656  114  59.22N  16.92E  SS  32C  AL  34C  LR  38C
1146=KD 10 2335  5955 RUSS RL  P1          0    0    0  55.85N  40.35E  NE  66B  N0  84B
1147=KD  7 0003  5955 RUSS RL  HC          0    0    0   0.00N   0.00E  ne  58B  ds 281C  fl  38C
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1148=KD  8 1611  6115 RUSS RL  L1          0    0    0  55.61N  35.91E  U2  66B  N0  88B
1149=KD 10 0431  6160 RUSS VOA WOF 1       0    0    0  55.97N  32.17E  BK  62B  NE  66B
1150=KD  7 0442  6160 RUSS VOA WOF 1    3197  220  138  36.13N  81.39E  N0  80A  NE  75B  NE  75B  NE  75B  SS  40C
1151=KD 18 1901  7220 RUSS RL  HB      56506  661  141  26.58S 140.41E  U2  65B  NE  70B  U2  65B
1152=KD 19 0031  7220 RUSS RL  HA          0    0    0  54.20N  45.90E  U2  67B  NE  69B
1153=KF 16 2308  7410 HEBR IBA             0    0    0  18.24N  78.21E  N2 110A  N1 105B
1154=KF 15 2301  7280 RUSS VOA MUN 2       0    0    0  54.47N  18.36E  U2  70C  NE  69B
1155=KF  9 1503 11710 RUSS VOA WOF 9       0    0    0   0.00N   0.00E  n0  78B  ne  53B  u2  68B
1156=KM  9 2041 11875 ARM  RL  L7+L8       0    0    0   0.00N   0.00E  u2  88B  ne  57B  ne  79B
1157=KM 20 1815  9505 AZ   RL  L1       2159  168  140  26.99N  62.32E  U2  96A  U2  95B  N0 103A  NE  93B  NE  94C
1158=KM 25 0201  9660 TI   RL  HD          0    0    0  48.50S 157.40E  NE  89B  BK  94B
1159=KM  6 1816 11885 UKR  RL  P6      18980  926  134  40.08N  40.98E  BE  49C  FL  41C  LR  42C
1160=KR 12 0640  5970 POLI RFE B6          0    0    0  77.72N   8.17E  AN   7C  DS  12C
1161=KU  7 1611 11960 LAT  VOA TAN 6       0    0    0  44.18N 127.05E  AN 290C  WP 310C
1162=KU 16 2015  7230 ARAB OA            912  246   64  57.91N 156.77E  AN 288C  WP 330C  FE 309C
1163=KU 12 0211 11925 RUSS VOA KAV 7    1696  601   50  42.12N 130.76E  WP 307C  AN 284C  FE 314C
1164=KU  9 0024 11935 RUSS RL  P3       1396  487   53  48.20N 125.37E  AN 291C  WP 310C  DS 315C  FE 345C  WP 312C  DS 322C
1165=KU 10 0135 11935 RUSS RL  P3          0    0    0  43.41N 128.88E  WP 309C  AN 288C
1166=KU  7 0108 11935 RUSS RL  P3          0    0    0  63.98N  69.66E  AL  11C  AN 339C
1167=KU  6 0205 11935 RUSS RL  P3          0    0    0  20.56N 112.01E  AN 287C  FE 310C
1168=KV 21 0925  9520 RUSS RL  L2       1270   61   99  58.53N  21.66E  N0  85B  FE  15C  PS  36C  LR  40C
1169=KV 24 0846  9520 RUSS RL  L2          0    0    0  57.66N  28.02E  N2 150C  N0  86B
1170=L4  7 1541  6200 ???? ????????????    0    0    0  48.76N  20.81E  NE 103D  N0 132B
1171=L4 21 0943  9680 ???? ????????????    0    0    0  47.07N  17.60E  PS  44C  FL  44C
1172=L4 20 0603  9555 BULG RFE G1          0    0    0   0.00N   0.00E  u2 107A  ne  70C
1173=L4 24 0601  9555 BULG RFE G1          0    0    0  36.01N  34.31E  U2 110C  N0 128B
1174=L4 26 0607  9555 BULG RFE G2       4478  218  133  36.25N  36.26E  SS  48C  AL  31C  U2 108B
1175=L4 23 1742 17725 BULG RFE G2B         0    0    0  49.26N   8.77E  FL  44C  PS  45C
1176=L4 25 1732 17725 BULG RFE G2B     11359   77  127  44.55N  25.23E  NE 112B  PS  43C  FL  44C  LR  50C
1177=L4 26 1441 17725 BULG RFE G2B      7421  686  124  46.33N  20.65E  PS  43C  LR  48C  AL  45C  FL  44C
1178=L8 15 1712 15170 CZEC RFE G15+G16   105    7   93  52.24S 174.97W  BK 104B  NE  98B  NE 105B
1179=L8 16 1444 21720 CZEC RFE G1B     13980  415  107  54.11N   1.74W  LR  47C  BE  52C  CA  49C
1180=L8 15 1511 21720 CZEC RFE G1B      5409  881  123  41.47N  31.70E  SS  49C  BE  53C  FL  42C
1181=LF 21 0035  9615 UZBE VOA KAV10    1529  358  130  40.32N  74.53E  NE  74B  U2  75B  DS 322C  WP 346C
1182=LG 17 0641  7190 POLI RFE B3        220   37  131  49.29N  27.68E  U2  88B  AN   6C  LR  47C  FL  38C  N0 117A
1183=LG 25 0842  9705 POLI RFE B2          0    0    0  10.09S  26.05E  AN   5C  GI  74C
1184=LG  6 1316 11725 POLI RFE B1       1538  564  127  52.44N  20.25E  AN   6C  BE  45C  FL  37C  LR  47C  PS  38C
1185=LG 15 1712 15145 POLI RFE G1       1694   31   94  52.20N  14.62E  NE  86B  NE  88B  NE  86B  BE  46C  FL  35C  PS  42C
1186=LG 15 1342 15145 POLI RFE G1       2388  146  116  46.96N  36.28E  U2  88B  SS  44C  BE  32C  PS  38C  AL  43C  FL  37C
1187=LG 20 1131 17735 POLI RFE G13+G14     0    0    0  29.74S  25.25E  N2 172B  N3 179B
1188=LG 23 1415 17805 POLI RFE G1A      5179  846  127  43.41N  34.03E  SS  46C  BE  48C  LR  46C
1189=LG 25 1452 17805 POLI RFE G1A      2722  435  104  53.27N    .24E  PS  40C  LR  44C  BE  56C  SS  40C
1190=LG 15 0737  7220 RUSS RL  L5+L6       0    0    0  44.65N  28.41E  LR  46C  SS  46C
1191=LG 24 0719  9520 RUSS RL  HC          0    0    0  45.07N  39.05E  SS  43C  FL  38C
1192=LG 26 0335  9555 RUSS RL  G1B         0    0    0   0.00N   0.00E  ne  78B  u2  87B
1193=LG 21 2145  9750 RUSS RL  L3       1485   51   90  52.57N  14.05E  BE  48C  LR  46C  SS  42C  NE  83B
1194=LG 21 2314  9750 RUSS RL  L3          0    0    0   0.00N   0.00E  u2  86B  ne  80B
1195=LG 22 0111  9750 RUSS RL  L3        181   34  131  49.80N  25.24E  U2  88B  N0 120A  FL  37C
1196=LG 25 2331  9750 RUSS RL  L3          0    0    0  63.01S 156.75E  N0 119B  N1  95C
1197=LG 22 0201  9770 RUSS VOA TAN 1       0    0    0  53.20N  19.53E  N0 120B  NE  78B
1198=LG  8 2001 11770 RUSS RL  B3          0    0    0  51.11N  17.27E  U2  88C  BK  86B
1199=LG  8 1301 11780 RUSS BBC WOOF      132   50  111  50.19N  29.45E  N3 170B  NE  87B  U2  90C  NE  87B
1200=LG 11 1601 11780 RUSS BBC WOOF        0    0    0  54.86N  16.20E  N0 120C  NE  64B
1201=LG  9 0750 11885 RUSS RL  P5       1370   69   83  55.20N  20.20E  BE  43C  U2  67B  FL  39C
1202=LG  9 0905 11885 RUSS RL  B4        968   44   79  54.89N  19.33E  NE  68B  SS  46C  BE  45C  LR  30C  FL  41C  NE  66B
1203=LG  8 0811 11970 RUSS RL  P5          0    0    0  46.87N  27.50E  AL  41C  SS  44C
1204=LG 15 1551 15115 RUSS RL  G7       4146  470  114  57.94N   7.45E  PS  38C  GI  33C  BE  44C  AL  41C
1205=LG 19 1258 15290 RUSS RL  B8       1819  770  141  49.49N  28.11E  PS  35C  AN   1C  AL  41C  FL  39C
1206=LG 16 1607 15355 RUSS RL  G8          0    0    0  49.27N  33.14E  BE  45C  FL  37C
1207=LG 24 1413 17710 RUSS IBA           463   77  126  49.83N  31.25E  N0 110B  U2  84C  SS  39C  BE  52C
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1208=LG 24 1417 17725 RUSS RL  G2B       1622    3  117  58.81N   5.68E   N0 110B  N0 124B  LR  44C  SS  41C  FL  41C
1209=LI 14 1740  7170 RUSS VOA KAV 5        0    0    0  18.84N 113.34E   AN 285C  FE 308C
1210=LK 16 2247  7105 ???? ????????????   705  450  153  80.13N  30.51E   BE  14C  AL  10C  AN   0C
1211=LK 16 2341  7180 ???? ????????????  1038  495  153  68.47N  36.30E   DS   8C  FE   6C  SS  39C  AN   1C  LR  23C  AL  12C
1212=LK 20 0448  9510 ???? ????????????     0    0    0  86.57N 167.96E   DS 356C  FE 355C
1213=LK 21 2343  9510 ???? ????????????     0    0    0   6.64S  80.66E   AL  22C  BE  44C
1214=LK 20 0152  9530 ???? ????????????     0    0    0   0.00N   0.00E   an 293C  ds 356C
1215=LK 21 0124  9530 ???? ????????????     0    0    0   0.00N   0.00E   ps  36C  an  10C  ds 341C
1216=LK 22 0241  9530 ???? ????????????  2227  155   97  71.36N 165.84E   AN 319C  FE 331C  ds 316C  DS 338C
1217=LK 20 0119  9670 ???? ????????????  2780 1249    7  42.45N  67.85E   an 277C  WP 327C  DS   2C  KI  11C
1218=LK 23 0411  9670 ???? ????????????  2172 1102    4  32.95N  80.65E   WP 312C  AL  14C  DS 352C  LR  16C
1219=LK 24 0411  9670 ???? ????????????     0    0    0  48.38N  96.27E   DS 343C  WP 320C
1220=LK 22 0418  9680 AZ    RL  L1          0    0    0   0.00N   0.00E   ds 335C  lr 173C  an 348C  wp 326C  al 160C
1221=LK 20 1805  9555 BULG RFE G1        1031  691  145  35.22N  91.73E   NE  70B  AN 290C  WP 324C  DS  10C
1222=LK 20 2144  9555 BULG RFE G1         794   85  111  53.05N  50.70E   NE  70B  NE  69B  N0  83B  NE  70B  U2  69B
1223=LK 17 2131  7105 RUSS VOA MUN 1     1536  110  104  53.62N  43.90E   U2  69B  NE  71B  BE  50C  AL   9C  SS  36C
1224=LK 18 2115  7105 RUSS VOA MUN 1     1079   43   71  52.83N   3.77E   U2  68C  SS  36C  BE  53C
1225=LK 19 2041  7105 RUSS VOA MUN 1        0    0    0   5.96S 126.71E   N1  70B  BK  70B
1226=LK 19 2101  7105 RUSS VOA MUN 1      911  229  149  42.87N  76.46E   N1  90B  U2  70B  AN 324C  WP 327C  N3 110B
1227=LK 14 1958  7105 RUSS VOA MUN 1     2391  694    7  60.82N  64.46E   FE   6C  AN 336C  AL  12C
1228=LK 13 1911  7105 RUSS VOA MUN 1      981  367  125  47.40N  64.62E   U2  70B  FE 347C  DS   7C  AN 339C
1229=LK 13 2041  7105 RUSS VOA MUN 1        0    0    0   0.00N   0.00E   n0 110B  ne  84B  ne  70B
1230=LK 14 1931  7120 RUSS BBC WOOF        0    0    0  54.32N  16.01E   U2  70B  NE  68B
1231=LK 15 2104  7120 RUSS BBC WOOF        0    0    0  37.10N  77.14E   NE  77B  N2 102B
1232=LK 19 2111  7120 RUSS BBC WOOF        0    0    0  37.86N  78.67E   N2 100B  N3 110B
1233=LK 17 0214  7145 RUSS RL  B8       3096 1123  175  29.87N  70.42E   LR  38C  AN 328C  AL   9C
1234=LK 18 0118  7145 RUSS RL  B8       1633  188  116  78.38N 166.36E   AN 342C  WP 328C  DS 341C
1235=LK 19 0159  7145 RUSS RL  B8          0    0    0  18.24N  67.19E   BE  43C  FE 350C
1236=LK 13 0105  7145 RUSS RL  B8       2147   23   84  52.84N  12.22E   NE  78B  NE  78B  DS  10C  NE  78B  NE  84B
1237=LK 19 0241  7145 RUSS RL  B8          0    0    0  69.04N  75.85E   AN 339C  DS 358C
1238=LK 14 0051  7145 RUSS RL  B8          0    0    0  48.20N  58.47E   DS   8C  AN 340C
1239=LK 13 2341  7155 RUSS RL  P4          0    0    0  54.62N  21.90E   U2  70C  NE  70B
1240=LK 16 2331  7190 RUSS RL  G3B       1485  103  120  46.96N  65.38E   BK  73A  BK  73A  N0  82B  NE  72B
1241=LK 14 2346  7190 RUSS RL  G3B       4188  705  141  70.19N  45.18E   LR  23C  AL  12C  DS  10C
1242=LK 24 0312  9520 RUSS RL  P2        1569  667  138  31.24N  78.38E   U2  78B  DS 349C  WP 315C
1243=LK 24 0435  9520 RUSS RL  B7          0    0    0  36.26N  84.28E   DS 348C  AL   8C
1244=LK 24 2131  9530 RUSS VOA KAV 3       0    0    0  36.10N  83.78E   U2  70B  N1  90C
1245=LK 23 0210  9540 RUSS RL  G4        1678  407  157  39.40N  77.92E   DS 340C  AN 328C  N2 100B
1246=LK 24 0241  9540 RUSS RL  G4          0    0    0   1.23N  76.35E   DS 349C  FE 336C
1247=LK 20 1606  9615 RUSS DW            1697  250  119  46.31N  54.57E   WP 327C  KI  38C  NE  80B
1248=LK 21 2214  9670 RUSS VOA KAV10     8779 1162  158  15.24N  67.01E   BE  46C  AL  23C  GI  22C
1249=LK 25 2227  9670 RUSS VOA KAV10        0    0    0  16.81S  89.47E   LR  32C  AL  10C
1250=LK 20 0505  9680 RUSS RL  L1          0    0    0  66.00S 174.92W   NE 180B  N1  90B
1251=LK 20 2049  9680 RUSS RL  B6          0    0    0  55.09N  22.40E   N0 105B  U2  68A
1252=LK 25 0034  9680 RUSS RL  P5        4166  868  152   4.61N  92.42E   NE  89B  LR  13C  BE  27C  lr 140C  be 134C
1253=LK 25 2001  9680 RUSS RL  B6         566  157  105  51.58S 174.11E   U2  65C  NE  93B  N0  60B
1254=LK  8 1041 11875 RUSS RL  L7+L8     1955  764  143  32.87N  52.59E   BE  42C  PS  42C  FL  32C  LR  44C  AL  39C  SS  46C
                                                                          WP 328C
1255=LK  8 1135 11875 RUSS RL  L7+L8     2173 1082  153  27.15N  51.34E   PS  41C  LR  42C  AL  40C  WP 328C
1256=LK 12 1103 11875 RUSS RL  L7+L8     2367  286  139  38.30N  75.54E   N0  85B  SS  36C  LR   8C  U2  67B  N0  90B  LR   8C
                                                                          AL   8C
1257=LK 10 1258 11875 RUSS RL  L7+L8     1976  218   69  65.29N  30.11W   FL  31C  PS  21C  AL  33C  BE  36C  LR  26C
1258=LK 18 0537 15370 RUSS RL  HD           0    0    0   2.51N  43.53E   AN 345C  WP 316C
1259=LK 18 0634 15370 RUSS RL  HD           0    0    0  37.20N  60.34E   NE  89B  WP 328C
1260=LK 15 0601 15370 RUSS RL  HD           0    0    0  40.51N  80.83E   U2  68C  WP 319C
1261=LK 19 0801 15445 RUSS RL  P4           0    0    0  19.68S  96.26E   N0 100B  LR  19C
1262=LK 16 0759 15445 RUSS RL  P4           0    0    0  43.62N  72.43W   LR  35C  FL  18C
1263=LK 15 0611 15445 RUSS RL  P3           0    0    0  45.42N  75.94E   U2  66B  N1  90B
1264=LK 14 1711  7245 UKR  VOA MUN 4     1005  233  118  50.75N  67.61E   AN 335C  WP 325C  NE  63B  NE  70B
1265=LK 15 1631  7245 UKR  VOA MUN 4      990  231  108  54.08N  52.19E   U2  65B  WP 325C  AN 352C
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1266=LK 14 2013  7245 UKR  RL  L5+L6     3252  478  130  42.72S 158.14E  NE  76B  N2  59C  NE  69B
1267=LK 13 1706  7270 UKR  VOA MUN 2        0    0    0  51.17N  79.65E  AL   9C  WP 328C
1268=LM 18 1943  7160 ???? ????????????16909  980  143  23.32N  56.76E  LR  44C  BE  47C  PS  39C  FL  44C
1269=LM 18 2341  7270 ???? ????????????? 3094  446  107  54.32N   6.44E  PS  39C  FL  39C  a1  10C  SS  38C  LR  44C  BE  51C
1270=LM 11 0743 11900 ???? ?????????????    0    0    0  48.57N  27.00E  N0 120A  N2 160B
1271=LM 13 1913  7170 RUSS VOA KAV 5        0    0    0   0.00N   0.00E  u2  90B  ne  72B
1272=LM 18 0311  7220 RUSS RL  HA           0    0    0   0.00N   0.00E  be  38C  lr  46C
1273=LM 18 2331  7280 RUSS VOA MUN 2        0    0    0   0.00N   0.00E  u2  90C  ne  69B
1274=LM 20 2135  9009 RUSS IBA           3654  511  113  53.31N  15.38E  SS  39C  FL  39C  LR  41C  BE  49C  PS  40C
1275=LM 21 0335  9009 RUSS IBA              0    0    0  47.69N  38.04E  NE  89B  N0 106B
1276=LM 23 2201  9530 RUSS VOA KAV 3        0    0    0  53.76N  18.45E  N0 120B  NE  74B
1277=LM 24 1611  9635 RUSS BBC CYPRUS       0    0    0  43.82N  40.31E  U2  91B  N0 110B
1278=LM 13 1531 15235 RUSS VOA WOF 2      182   52  118  49.66N  25.43E  N0 120B  BK  90B  FL  38C  AL  42C
1279=LM 16 1401 15485 RUSS IBA            192   60  147  54.35N  24.52E  N0 105C  BE  47C  PS  38C  AL  35C  N1 148B
1280=LM 17 1501 21735 RUSS RL  G4B        351   10   84  52.02S 179.88E  U2  96B  NE  88B  NE  88B  NE  88B
1281=LM 24 1835  9565 UKR  RL  P2           0    0    0  51.40N  20.45E  NE  89B  N0 125C
1282=LM  9 1801 11885 UKR  RL  P6           0    0    0  50.11N  24.76E  N0 120C  NE  92B
1283=LM 16 1618 15380 UKR  RL  P6         110    2   69  52.24N   5.09E  NE  79B  U2  80B  NE  79B  AL  38C  BE  47C  NE  94B
                                                                        PS  38C  FL  42C
1284=LR 20 2231  9625 BR   RL  G8        1789  442  129  48.52N 100.37E  BK  53B  WP 319C  BK  53B
1285=LR 21 0935  9675 RUSS VOA PHT 8        0    0    0   0.00N   0.00E  u2  32B  ne  42B  ne 114B
1286=LR 22 0935  9675 RUSS VOA PHT 8     4155  476  146  42.41N 112.50E  U2  46B  NE  51B  N3  75C
1287=LR 24 0805  9675 RUSS VOA PHT 8        0    0    0  47.03S 175.99E  U2  30C  NE  52B
1288=LR 24 0149  9725 TB   RL  P5           0    0    0  63.88N 128.97E  FE 329C  DS 337C
1289=LT 21 0441  9580 ???? ????????????    0    0    0  47.75N  43.28E  BK  84B  N0 100C
1290=LT 20 0631 17760 RUSS RL  L4           0    0    0   0.00N   0.00E  n0 100B  u2 105C  ne  68B
1291=LT 15 0831 21510 RUSS RL  HB           0    0    0  27.80N  65.81E  N0 100C  U2  90B
1292=LT 14 1201 21590 RUSS DW               0    0    0  38.28N  61.46E  U2  83B  N0  95B
1293=M3 10 1712  6095 RUSS RL  L3           0    0    0  47.44S 136.90E  U2  98B  N0  90C
1294=M3 26 1453 17750 TI   RL  HC        5235  513  110  54.43N   3.79E  PS  36C  AL  44C  LR  48C  FL  41C
1295=M3 24 1652 17895 UKR  RL  G4B          0    0    0  53.19N   5.39E  PS  42C  KI  37C
1296=M7 18 1741 15115 BULG RFE G7        1308  426   84  42.72N  25.46W  FL  46C  GI  65C  SS  51C
1297=M7 16 1831 15115 BULG RFE G7        5231  169   83  55.10S 163.46E  BK 115A  U2 114B  BK 115A
1298=M7 14 1035 15330 BULG DW               0    0    0  54.32N  12.53E  NE  62B  N0 137B
1299=M7 13 1001 15330 BULG DW             331   58  135  43.97N  23.91E  BK 116B  u2 120B  N0 135B  BE  56C
1300=M7 15 1001 15330 BULG DW               0    0    0  54.92S 168.87E  U2 118B  NE 112B
1301=M7 17 1001 15330 BULG DW             280   54  135  45.74N  22.40E  N0 135B  NE 113B  FL  44C
1302=MA 21 1801  9505 AZ   RL  L1           0    0    0  48.58S 170.04E  U2  66B  NE  75B
1303=MF 10 1831  5955 BR   RL  HC          0    0    0  51.45S 178.30E  U2  65B  NE  82B
1304=MF 12 0504  5985 BR   RL  P1          0    0    0  54.73N  19.31E  U2  69B  NE  68B
1305=MF 20 0601  9555 BULG RFE G1           0    0    0  54.71N  41.10E  N1 116B  NE  69B
1306=MF 21 0433  9555 BULG RFE G1        1925  165  110  52.74N  54.52E  U2  68B  NE  68B  WP 338C
1307=MF  6 1035 11850 BULG DW               0    0    0   0.00N   0.00E  n0 130B  n2 162B  u2  70B
1308=MF 21 0631  9725 CZEC RFE G9+G10     323   92  138  51.90N  60.40E  N0  86B  N2 105C  NE  66B  NE  66B  N3 120B  n0  94B
                                                                        N2 106B
1309=MF 15 1111 15215 CZEC RFE G3B        116   53  117  56.15N  38.91E  NE  62B  NE  67B  N0  86B  N2 130B
1310=MF  6 2111  5955 EST  RFE P1        2252   51   91  55.41N  32.66E  U2  67B  NE  68B  NE  68B
1311=MF 15 0403  7155 EST  RFE P2           0    0    0  54.32N  16.01E  NE  68B  U2  70B
1312=MF 16 0201  7155 EST  RFE G2           0    0    0  20.20S 135.83E  BK  72B  NE  69B
1313=MF 16 1701  7255 GEOR RL  L4       26520  609  138  30.46S 148.72E  BK  69B  NE  65B  BK  69B
1314=MF 19 1933  7155 LAT  RFE P4           0    0    0  55.44N  25.51E  NE  67B  U2  67B
1315=MF  7 0541  5985 LITH RFE P1           0    0    0  55.56N  22.43E  U2  66B  SS  36C
1316=MF 17 0633  7130 POLI VOA KAV 1        0    0    0  55.63N  37.11E  N0  87B  NE  67B
1317=MF 20 0933  9705 POLI RFE B2           0    0    0  55.15N  58.67E  NE  63B  N2 105B
1318=MF 12 0101  5955 RUSS RL  G3A          0    0    0  52.52N  49.76E  U2  69B  N0  85B
1319=MF  6 2301  6050 RUSS RL  B8           0    0    0  53.08N   8.74E  U2  75C  NE  68B
1320=MF  7 1531  6105 RUSS RL  L11        302   47  103  54.17N  37.02E  U2  65B  NE  77C  N0  90B  NE  77C  NE  71B  NE  72B
1321=MF 12 1601  6105 RUSS RL  L11          0    0    0  47.00S 169.84E  BK  77B  NE  68B
1322=MF  7 1641  6105 RUSS RL  L11          0    0    0  54.62N  27.77E  U2  70B  NE  71B
1323=MF 12 0401  6115 RUSS RL  G4B        185    3   70  52.27N   5.21E  U2  72C  NE  76B  NE  70B
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1324=MF 16 2231  7170 RUSS VOA KAV 5     411   34   85  53.99N  24.01E  BK  72B  BK  72B  NE  68B  U2  70B
1325=MF 15 2212  7255 RUSS RL  L4          0    0    0  55.61N  35.91E  U2  66B  N0  88B
1326=MF 14 2247  7255 RUSS RL  L4          0    0    0  54.21N  38.57E  NE  71B  N0  90B
1327=MF 14 0431  7410 RUSS IBA             0    0    0  46.25N  70.70E  U2  68B  BK  71B
1328=MF 10 1202 11885 RUSS RL  B4          0    0    0  54.06N  40.25E  N0  89B  NE  71B
1329=MG 16 1948  7295 RUSS RL  HA          0    0    0  44.80N  35.22E  N0 115B  N1 139A
1330=MG 12 1742 11865 RUSS DW           2411   32  105  49.56N  22.59E  BK  93A  BE  50C  FL  40C  PS  39C
1331=MG 26 1205 17725 RUSS RL  P1+P2        0    0    0  49.68N  33.80E  N3 163B  N0 107B
1332=MG 21 0235  9760 UKR  VOA TAN 5      123   39  100  53.72N  21.66E  NE  75B  N0 113B  NE  75B
1333=MG 12 1741 11885 UKR  RL  P6          0    0    0  48.15N  29.41E  U2  90A  BK  93A
1334=ML 20 1911  9585 ARAB OA           18453  887   34  29.45N 115.43E  AN 290C  FE 310C  DS 321C
1335=ML 26 1705  9690 RUSS VOA KAV 7     884  336  158  35.64S  78.02E  AN 288C  FE 305C  GI  29C  AN 286C
1336=ML 21 0242  9770 RUSS VOA TAN 1    2090  788   64  41.97N 132.47E  DS 321C  an 323C  FE 308C  WP 307C
1337=ML 22 0210  9770 RUSS VOA TAN 1       0    0    0   0.00N   0.00E  ds 324C  wp 309C  lr 162C
1338=ML 24 0219  9770 RUSS VOA TAN 1     913  276   56  53.61N 140.77E  AN 284C  WP 307C  FE 341C  WP 306C  AN 287C  FE 347C
                                                                        DS 320C
1339=ML 25 0454  9770 RUSS VOA TAN 1    2323  847   60  40.58N 127.20E  FE 311C  WP 306C  DS 321C
1340=ML 20 0241  9760 UKR  VOA TAN 5    1344  547   54  43.13N 139.46E  AN 279C  WP 308C  DS 320C
1341=ML 20 0347  9760 UKR  VOA TAN 5       0    0    0  41.09N 123.76E  AN 290C  WP 307C
1342=MP 22 0045  9700 ???? ????????????    0    0    0  45.93N  39.80E  FL  37C  SS  42C
1343=MP 21 0152  9700 DARI VOA KAV10       0    0    0  48.75N  29.78E  N0 115B  N2 155B
1344=MP 21 2147  9530 RUSS VOA KAV 3    4550  984  156  10.93N  66.82E  BE  44C  PS  34C  DS   6C  LR  47C
1345=MP 12 2011 11925 RUSS RL  B2       1708   84   62  51.60N  53.27W  FL  37C  LR  47C  PS  44C  BE  48C
1346=MP 10 2011 11925 RUSS RL  B2          0    0    0  45.64N  33.17E  FL  40C  SS  44C
1347=MP 10 1942 11925 RUSS RL  B2          0    0    0   0.00N   0.00E  be  29C  f1  39C
1348=MP 16 0149  7295 TI   RL  L4          0    0    0  51.79N  27.58E  N0 110B  N2 157B
1349=MP 17 0140  7295 TI   RL  L4          0    0    0  53.30N  28.93E  N0 103B  N1 140B
1350=MP 16 0235  7295 TI   RL  L4          0    0    0   0.00N   0.00E  ne  76B  u2  90C
1351=MP 21 0134  9660 TI   RL  HD         83   26  118  53.55N  21.25E  N0 113B  NE  76B  NE  76B  N0 115A
1352=MP  7 2333  6170 UKR  RL  L2          0    0    0   0.00N   0.00E  ne  86C  u2  90A  ne  80B
1353=MP 12 0331  6170 UKR  RL  B1          0    0    0  52.01S 179.80E  U2  93B  NE  88B
1354=MU 26 0445  9680 AZ   RL  L1        784  169  137  47.99N  63.92E  U2  74B  N0  78B  N2 108B
1355=MU 14 0001  7115 CZEC RFE G3        854  143  121  48.85N  55.42E  NE  76B  N0  85B  U2  75B  AN 346C  FE   3C
1356=MU 14 2341  7115 CZEC RFE G3        533  101   54  30.49S  71.97E  AN 356C  LR  34C  DS 353C  FE 357C  AL  40C  SS  42C
                                                                        GI  78C
1357=MU 16 0019  7115 CZEC RFE G3       1239  152  139  42.40N  67.92E  N0  85A  N2 108B  N0  86B
1358=MU 13 0011  7115 CZEC RFE G3        776  157  106  54.17N  51.56E  FE   3C  AN 344C  GI 105C  SS  36C  NE  66C  NE  68B
                                                                        DS   4C
1359=MU 20 0026  9725 CZEC RFE G9+G10      0    0    0  63.04N  42.36E  N2 108B  N1  90B
1360=MU 20 2201  9725 CZEC RFE G9+G10    330   49  114  50.12N  49.70E  N0  91A  BK  75A  SS  37C  AN 298C  NE  73B  PS  43C
                                                                        FE 354C  WP 323C  LR  22C  BE  41C  AL  40C  U2  74B
                                                                        BK  75A
1361=MU 21 0016  9725 CZEC RFE G9+G10    844   68  100  53.13N  35.62E  NE  75B  PS  41C  SS  38C  FE 357C  BE  48C  AN 358C
                                                                        NE  75B
1362=MU 21 2311  9725 CZEC RFE G9+G10    319    9   78  52.50N   6.99E  U2  76B  n0  65B  NE  79B  NE  75B  NE  80B  PS  43C
                                                                        BE  42C  FL  45C  SS  39C
1363=MU 23 2010  9725 CZEC RFE G9+G10   2437 1281    0  19.54N  51.74E  AL  45C  WP 326C  FE   0C
1364=MU 23 2115  9725 CZEC RFE G9+G10   2290  400  143  40.42N  67.33E  U2  78C  BE  34C  LR  32C  FL  34C  N1  98C
1365=MU 23 2319  9725 CZEC RFE G9+G10      0    0    0  34.73N  66.67E  BE  35C  SS  40C
1366=MU 24 0013  9725 CZEC RFE G9+G10      0    0    0  21.77N  81.68E  N1 100B  N0  90C
1367=MU 25 2112  9725 CZEC RFE G9+G10    403   79  144  49.18N  65.38E  WP 325C  AN 330C  N0  75C  N2 105B  U2  78B  N0  71B
                                                                        N2 106A  N1  91B  N3 116B  NE  75B  AL  11C  LR  25C
1368=MU 25 2350  9725 CZEC RFE G9+G10      0    0    0   0.00N   0.00E  u2  78B  be 171C
1369=MU 26 0041  9725 CZEC RFE G9+G10    759  154  130  42.97N  69.02E  BK  76A  N0  86C  N2 106B  U2  73B
1370=MU  8 1812 11925 CZEC RFE G1A      1268  360  142  38.75N  64.60E  AN 331C  LR  46C  SS  42C  AL  15C  BE  48C  WP 325C
                                                                        N0  90B
1371=MU 12 1731 11925 CZEC RFE G1A     19595  413  138  26.04S 131.46E  BK  81A  U2  74A  NE  77B
1372=MU  8 1741 11925 CZEC RFE G1A         0    0    0  46.43N  56.15E  U2  76A  N0  90B
1373=MU 20 2302  9435 HEBR IBA           364   62  107  54.20N  37.41E  N0  91B  NE  71B  U2  70B
1374=MU 26 2301  9435 HEBR IBA           492  104  142  41.45N  70.12E  BK  76A  N2 105A  NE  81B  N1 100A  LR  29C  PS  28C
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                                                                   FL  25C  BE  31C  U2  77B
1375=MU 13 2301   7115 HUNG RFE G3         792  118  122  48.37N  55.61E   NO  87C  NE  78B  U2  73B  FE   2C  SS  38C  AN 348C
                                                                   NE  78B  NO  85B
1376=MU 16 0304   7275 PASH DW            1337  215  120  47.07N  59.33E   NE  75B  U2  75B  AN 338C
1377=MU 18 0302   7275 PASH DW             994  236  110  53.12N  57.48E   NE  67B  AN 348C  WP 323C
1378=MU 12 0301   6025 RUSS VOA WOF 2        0    0    0  49.38N  55.03E   NE  75B  DS  10C
1379=MU  6 0257   6025 RUSS VOA WOF 2        0    0    0  32.04N  59.71E   AN 335C  DS  10C
1380=MU 11 0311   6160 RUSS VOA WOF 1      339   28   75  53.30N   9.86E   U2  73C  U2  74B  NE  68B
1381=MU  8 0219   6160 RUSS VOA WOF 1     1215  268  141  38.25N  68.74E   U2  78B  U2  78B  N2 110B
1382=MU 10 0301   6160 RUSS VOA WOF 1      627  189  140  45.51N  65.20E   U2  75B  N3 120B  NE  73B
1383=MU 15 2101   7120 RUSS BBC WOOF         0    0    0   3.92S 114.20E   U2  73B  NO  76B
1384=MU 13 1833   7120 RUSS BBC WOOF      2272   43   87  53.92N  22.82E   NE  74B  U2  73C  NE  74B
1385=MU 19 0141   7155 RUSS RL  G2           0    0    0  43.50N  79.71E   FE 344C  DS 353C
1386=MU 13 0111   7155 RUSS RL  G2         568  131  144  42.47N  67.61E   U2  74B  NE  78B  N2 108A  U2  73B  NE  78C  AL  30C
                                                                   FL  36C  LR  28C  BE  32C  DS 354C  PS  30C  NE  78C
1387=MU 16 0001   7155 RUSS RL  G2        2477  220  129  44.38N  61.64E   U2  75B  NO  88B  U2  77C
1388=MU 20 2131   9009 RUSS IBA            410   54  107  52.88N  41.61E   BK  74B  NE  72B  NO  91B  U2  71A
1389=MU 24 0041   9520 RUSS RL  P2           0    0    0  43.75N  67.13E   N1 100B  U2  73B
1390=MU 25 0101   9520 RUSS RL  P2         240   87  128  48.86N  55.68E   N2 120B  BK  74A  NE  80B  N3 126B
1391=MU 26 2216   9530 RUSS VOA KAV 3      528  124  127  46.34N  63.04E   NO  85B  BK  75A  N2 110B
1392=MU 20 0141   9540 RUSS RL  G4           0    0    0  53.43N   9.35E   U2  72A  BE  50C
1393=MU 20 0211   9540 RUSS RL  G4         587   16   77  52.83N   8.79E   NE  74B  NE  76B  NE  73B  U2  75C
1394=MU 20 0434   9540 RUSS RL  L4        1773  352  146  36.08N  75.83E   NE  79B  BE  47C  N2 102B
1395=MU 24 0247   9540 RUSS RL  G4           0    0    0  65.19N 102.24E   DS 347C  AN 324C
1396=MU 21 0102   9555 RUSS RL  G1B          0    0    0  53.21N  12.55E   U2  76A  NE  75B
1397=MU 22 0341   9555 RUSS RL  G1B          0    0    0  24.71N  53.22E   FE   4C  WP 325C
1398=MU 20 2031   9635 RUSS BBC CYPRUS     925   53  104  52.80N  42.83E   BK  73B  NE  73B  KI  44C  PS  23C  BE  30C  NE  70B
                                                                   U2  72A  FL  34C  WP 326C  NE  73B
1399=MU 20 2112   9635 RUSS BBC CYPRUS     652  101  128  49.06N  56.93E   NO  87A  N2 109C  NE  71B
1400=MU 21 1911   9635 RUSS BBC CYPRUS     647  123  130  43.42N  68.81E   U2  75B  N2 102B  NO  85B  U2  77B  NO  81B  BK  75A
                                                                   LR  46C  WP 329C  KI  38C  NE  76B
1401=MU 22 1805   9635 RUSS BBC CYPRUS    2160   71  108  51.15S 175.75E   NE  82B  U2  75B  NE  79B  U2  76B
1402=MU 22 2005   9635 RUSS BBC CYPRUS     947   30   85  52.59N   9.47E   LR  41C  BE  45C  NE  80B  SS  46C  U2  83C
1403=MU 22 2105   9635 RUSS BBC CYPRUS       0    0    0  52.36N   6.13E   NE  79B  U2  82C
1404=MU 25 2020   9635 RUSS BBC CYPRUS       0    0    0  34.74N  78.05E   U2  75B  NO  84C
1405=MU 26 0520   9680 RUSS RL  L1           0    0    0  54.71N  58.37E   N2 106A  NO  75C
1406=MU 20 1725   9690 RUSS VOA KAV 7        0    0    0  68.23N  25.89E   NO  35B  N2 102B
1407=MU 23 1610   9690 RUSS VOA KAV 7     3503  904  156  38.36N  61.57E   PS  35C  KI  10C  DS  12C  SS  37C  GI  12C
1408=MU 24 1810   9690 RUSS VOA KAV 7     2248  332   91  58.00N  12.31W   BE  43C  PS  42C  SS  35C  LR  47C
1409=MU 25 1531   9690 RUSS VOA KAV 7      782  101  116  51.14N  46.81E   U2  74B  NE  75B  NO  90B
1410=MU 26 1520   9690 RUSS VOA KAV 7        0    0    0  33.95N  77.59E   U2  76B  NO  85A
1411=MU 26 1701   9690 RUSS VOA KAV 7        0    0    0  43.21N  67.07E   NO  85B  NE  77B
1412=MU 20 0241   9770 RUSS VOA TAN 1      585  135  127  45.13N  63.98E   N2 110B  BK  76A  U2  75B
1413=MU 21 0225   9770 RUSS VOA TAN 1     1306   34   86  53.33N  16.36E   NE  78B  U2  75B  NE  76B
1414=MU 22 0201   9770 RUSS VOA TAN 1     1010   44  102  52.08N  35.05E   U2  76A  BK  76B  NE  78B
1415=MU 11 1119  11875 RUSS RL  L7+L8        0    0    0  47.53N  53.62E   BE  36C  SS  36C
1416=MU 12 1104  11875 RUSS RL  L7+L8     9538  194  117  48.52N  56.98E   NE  75B  U2  73B  SS  32C
1417=MU 10 1211  11875 RUSS RL  L7+L8     1388  244  120  48.72N  53.39E   BE  34C  FL  27C  SS  38C  PS  39C  U2  74B  BE  30C
                                                                   SS  38C  AL  28C  LR  24C  PS  25C
1418=MU  7 1401  11875 RUSS RL  L7+L8     1469  105  103  52.30N  37.14E   NE  77B  FL  37C  LR  36C  BE  38C  SS  39C  PS  32C
1419=MU  8 1133  11875 RUSS RL  L7+L8        0    0    0  54.82N  33.37E   NE  70B  BE  40C
1420=MU  6 1041  11875 RUSS RL  L7+L8     6497  786  135  51.37N  49.52E   BE  37C  FL  24C  LR  32C  SS  35C
1421=MU 17 0114   7245 TB   RL  L5+L6      779  326  126  46.74N  60.49E   SS  36C  AN   2C  FE 358C  be 162C  FL  47C  U2  73B
                                                                   FE 344C  AN 318C
1422=MU 15 0101   7245 TB   RL  L5+L6      339   95  123  49.86N  51.30E   N1 112B  U2  74B  DS   5C  NE  74B  FL  49C  KI   6C
                                                                   AN 341C  NE  75B  U2  74B  AN 336C  AL   8C  SS  42C
                                                                   FL  48C  PS  48C  KI   6C  FE 358C  LR  30C
1423=MU 20 0231   9725 TB   RL  P5         659  239  146  42.68N  66.63E   N2 110B  DS   1C  FE 334C  NE  76B  AN 334C  WP 323C
                                                                   FE   1C  BE  57C  al 128C  AN 327C  lr 163C  SS  31C
                                                                   DS   5C
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1424=MU 22 0101  9725 TB   RL  P5        9786  185  119  45.74N  59.54E  U2  75C  BK  78B  BK  78B
1425=MU 26 0135  9725 TB   RL  P5         591  164  134  49.32N  62.79E  U2  73B  lr 140C  N2 107B  NE  68B
1426=MV 23 1441 17740 ???? ????????????? 6369  348   95  55.49N  13.80W  LR  49C  FL  41C  BE  50C
1427=MW  8 0918 11890 ???? ?????????????    0    0    0  22.49N  86.61E  N1  95C  N2 100C
1428=MW 16 2304  7410 HEBR IBA              0    0    0  53.22N  54.85E  N0  80B  NE  68B
1429=MX 21 1532  9705 POLI RFE B2         927   19   72  53.38N  10.26E  NE  68B  NE  68B  AL  43C  LR  45C  FL  39C  NE  68B
                                                                        NE  68B
1430=MX 22 1541  9520 RUSS RL  L2        4406  552  123  54.22N  20.09E  AL  38C  BE  46C  DS  27C  FL  36C  PS  37C
1431=NI 15 1213  7215 ARAB OA               0    0    0  29.69N  44.18E  N0 121B  N2 143B
1432=NI 20 0753  9600 ???? ?????????????    0    0    0  34.32N  46.67E  N0 114A  N2 138B
1433=NI 24 1514  9625 ARAB BBC CYPRUS       0    0    0  17.68N  56.33E  N0 116B  N2 133B
1434=NI 23 2301  9815 HEBR IBA              0    0    0  60.04N  29.94E  N1 120B  N3 165C
1435=NI 15 0835  7220 RUSS RL  L5+L6        0    0    0  63.59N  28.15E  AN  1C  PS  26C
1436=NI 26 2316  9520 RUSS RL  G8          0    0    0  55.99N  36.71E  N2 135A  N1 120B
1437=NI 26 1801  9770 RUSS DW               0    0    0   0.00N   0.00E  u2  54B  ne  92B
1438=NI  9 1811 11845 RUSS BBC CYPRUS       0    0    0  69.54N  30.00E  BE  26C  AN 360C
1439=NI  6 2002 11845 RUSS BBC CYPRUS    2163  760  159  55.44N  27.77E  AN  1C  FE  18C  AL  34C
1440=NI 17 1336 15280 RUSS VOA WOF10        0    0    0  56.44N   8.83W  FL  38C  BE  50C
1441=NK  6 1547 11905 RUSS DW               0    0    0  54.13N  26.27E  SS  37C  AL  36C
1442=NS 22 1211 17890 ???? ?????????????    0    0    0  47.78N  37.09E  N0 107B  N1 133B
1443=NS 18 1431 15340 ARM  RL  L3           0    0    0   0.00N   0.00E  u2  91B  bk  93B  ne  89B
1444=NS 15 1111 15170 CZEC RFE G7       *****    6    0  52.24S 174.92W  NE  89B  NE  92B  NE  76B  n0 110B
1445=NS 15 1343 15170 CZEC RFE G7        2565    2    0  52.24N   5.08E  NE  93B  NE  93B  NE  78C  SS  46C  FL  40C  PS  37C
1446=NS 20 0401  9650 RUSS DW               0    0    0   0.00N   0.00E  u2  89B  ss  38C  ne  79B
1447=NS 26 0035  9750 RUSS RL  L3          0    0    0   0.00N   0.00E  ne  76B  u2  91A
1448=NS  6 0032 11770 RUSS RL  G7          0    0    0  52.03S 177.95E  NE  90B  U2  92B
1449=NS 18 1233 21500 RUSS VOA WOF 1        0    0    0  52.08S 178.83E  U2  96C  NE  90B
1450=PA 15 1410 21745 RUSS RL  G3A          0    0    0  43.40N  54.67E  BE  38C  SS  39C
1451=PB 15 0041  7210 ???? ?????????????    0    0    0  33.44N  43.12E  DS  24C  FE  12C
1452=PB 25 1516 17870 ???? ?????????????  5237   56  139  46.00N  31.64E  BE  49C  LR  41C  PS  42C  N0 118A
1453=PB 12 2231  6010 RUSS DW             189   44  113  51.07N  26.43E  N0 110B  U2  92B  NE  82B  BE  56C  PS  34C  LR  34C
                                                                        AL  33C
1454=PB  9 0233  6025 RUSS VOA WOF 2        0    0    0  52.01S 179.80E  NE  88B  U2  93B
1455=PB  7 2345  6140 RUSS VOA WOF 8        0    0    0  49.31N  28.90E  N0 115B  U2  87B
1456=PB 13 0231  7105 RUSS VOA MUN 2      434    3   83  52.28N   5.55E  U2  83B  NE  82B  NE  82B
1457=PB 16 0447  7120 RUSS BBC WOOF         0    0    0  47.51N  31.62E  U2  90B  N0 115B
1458=PB 19 0131  7165 RUSS RL  G3        1198   91   93  55.37N  35.07E  NE  68B  DS  24C  FE  10C
1459=PB 13 2049  7170 RUSS VOA KAV 5        0    0    0  46.79N  30.64E  FL  40C  DS  26C
1460=PB 17 0348  7170 RUSS BBC WOOF         0    0    0  45.99N  33.70E  U2  92A  N0 115B
1461=PB 15 1931  7170 RUSS VOA KAV 5      177   34  124  47.80N  30.92E  U2  92A  N0 115A  NE  90B  FL  43C  BE  49C
1462=PB 15 0519  7180 RUSS RL  L2        1802  418   90  50.64N  18.03W  LR  59C  PS  37C  SS  43C
1463=PB 13 0304  7220 RUSS RL  HA           0    0    0  51.00N  23.37E  NE  89B  N0 120B
1464=PB 19 2245  7255 RUSS RL  L4       16035  940  137  40.47N  36.79E  AL  40C  PS  42C  LR  44C
1465=PB 17 0234  7255 RUSS RL  HB           0    0    0  52.00S 177.51E  U2  91B  NE  90B
1466=PB 13 0201  7255 RUSS RL  HB         299   64  127  47.89N  27.96E  U2  92B  N0 120B  FL  42C  LR  33C
1467=PB 14 0211  7255 RUSS RL  HB           0    0    0   0.00N   0.00E  u2  92A  ne  86B  ne  86B
1468=PB 13 0213  7270 RUSS VOA KAV 9        0    0    0  47.86N  27.97E  N0 120A  U2  92B
1469=PB 19 0411  7285 RUSS DW            2795  176  119  45.36N  39.35E  U2  89B  BE  39C  DS  26C
1470=PB 19 2011  7295 RUSS RL  HA        7025  531  122  52.06N  20.01E  PS  38C  AL  40C  FL  38C  LR  44C  BE  48C
1471=PB 13 1931  7410 RUSS IBA           1882   57   93  52.42N  16.50E  u2  91B  NE  84B  AL  42C  FL  38C
1472=PB 22 0335  9435 RUSS IBA              0    0    0  56.26N   2.61W  SS  35C  FL  38C
1473=PB 26 2139  9505 RUSS RL  L1          0    0    0  55.38N  25.30W  FL  38C  LR  47C
1474=PB 20 0611  9520 RUSS RL  HC        1030   82   84  57.37N  32.74E  NE  61B  PS  40C  FE   1C  FL  40C
1475=PB 24 1606  9615 RUSS DW               0    0    0   8.79N  58.68E  AL  41C  PS  46C
1476=PB  9 1511 11805 RUSS VOA MUN 3        0    0    0  52.24N  22.71E  NE  83B  N0 117B
1477=PB  9 1611 11805 RUSS VOA MUN 3        0    0    0  43.81N  44.63E  NE  92B  N0 105B
1478=PB 10 2240 11835 RUSS VOA KAV 2     1575  997  164   9.75N  71.75E  FE 319C  PS  38C  SS  46C  WP 312C  KI  33C
1479=PB 15 1341 15120 RUSS VOA WOF 3        0    0    0   0.00N   0.00E  u2 101C  ne  66B  n0 120B
1480=PB 16 1841 15215 RUSS RL  G3B          0    0    0  49.12N  22.11E  BK  96B  U2  93B
1481=PB 17 1812 15215 RUSS RL  G3B      14702  681  127  48.24N  29.06E  LR  42C  BE  47C  FL  40C  PS  40C
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1482=PB 15 1711 15235 RUSS VOA WOF 8     4552  120   96  51.87S 173.60E  NE  91B  U2  90B  NE  93B
1483=PB 15 1332 15280 RUSS VOA WOF10        0    0    0  52.16N  21.42E  N0 120B  NE  84B
1484=PB 17 1331 15280 RUSS VOA WOF10     2612  117  108  49.81N  25.19E  U2  88C  LR  43C  BE  49C  FL  36C
1485=PB 17 1248 15280 RUSS VOA WOF10        0    0    0  30.98S  94.65E  LR  43C  BE  49C
1486=PB 19 1331 15280 RUSS VOA WOF10     1471  159  141  38.89N  39.75E  U2 100C  N0 118B  N0 116C
1487=PB 16 1731 15290 RUSS RL  B8        1737  101   97  51.36S 172.23E  BK  96A  NE  94B  NE  94B  NE  88B  BK  96A
1488=PB 17 1441 15425 RUSS IBA           8561  530  100  57.04N   3.85W  FL  38C  LR  42C  PS  41C
1489=PB 15 1435 15585 RUSS IBA            167   50  114  52.01N  23.14E  NE  84B  N0 117B  SS  42C  FL  37C
1490=PB 14 1431 21745 RUSS RL  G3A        522    5   96  51.04N   8.28E  U2  98C  BK  95A  ne  93B  PS  39C  FL  39C
1491=PB 12 0533  6170 UKR  RL  B1           0    0    0  50.71N  26.56E  NE  88B  N0 115A
1492=PB 19 0231  7190 UKR  VOA TAN10        0    0    0  49.44N  26.89E  U2  88B  N0 118C
1493=PB 17 2101  7245 UKR  RL  L5+L6      385   51  134  46.80N  32.61E  U2  91B  N0 115A  LR  43C  PS  40C  BE  44C
1494=PB 16 0318  7295 UKR  RL  B4           0    0    0  51.39N  10.87E  N0 156B  U2  91B
1495=PB 17 0411  7295 UKR  RL  B4           0    0    0  46.79N  32.63E  U2  91A  N0 115B
1496=PB 21 2158  9565 UKR  RL  P2           0    0    0  60.27N  29.08W  FL  31C  BE  42C
1497=PB 24 1834  9565 UKR  RL  P2        2093  528  155  28.74N  47.52E  N2 139C  BE  52C  PS  42C  LR  45C  AL  43C  SS  54C
1498=PB 21 0611  9660 UKR  RL  P4         150   32  125  51.63N  24.91E  NE  85B  N0 115A  PS  38C
1499=PB 16 1640 15380 UKR  RL  P6       10702 1088  141  34.26N  47.53E  PS  40C  FL  41C  AL  36C
1500=PF  8 2017 11755 ???? ????????????     0    0    0  59.93N 158.86E  WP 333C  AN 290C
1501=PF  6 2011 11945 ???? ????????????     0    0    0  48.11N 154.36E  AN 273C  WP 317C
1502=PF  8 0417  6130 RUSS DW                0    0    0  54.96N 137.48E  AN 294C  DS 327C
1503=PF 16 0340  7410 RUSS IBA               0    0    0  44.65S  63.28E  AN 295C  FE 315C
1504=PF 20 0310  9009 RUSS IBA            1079  284   62  58.02N 150.06E  AN 291C  DS 328C  WP 328C  FE 315C
1505=PF 20 0154  9540 RUSS RL  G4         1173  302   62  58.93N 147.30E  WP 328C  AN 293C  FE 322C
1506=PF 10 2231 11835 RUSS VOA KAV 2      1162  295   62  58.69N 147.49E  AN 293C  DS 331C  WP 328C  FE 318C
1507=PK 11 0733 11855 CZEC RFE G6            0    0    0  30.10N 112.78E  N0  60A  NE  58B
1508=PK 17 1740  7170 RUSS VOA KAV 5         0    0    0  58.15N 166.05E  WP 334C  DS 323C
1509=PK 15 1940  7170 RUSS VOA KAV 5         0    0    0  57.82N 146.09E  WP 327C  AN 293C
1510=PK 14 0311  7270 RUSS VOA KAV 9         0    0    0  56.14N  68.49E  NE  58B  U2  56A
1511=PK 16 0405  7285 RUSS DW                0    0    0  40.97N  79.47E  WP 320C  AL  11C
1512=PL 15 1245 15345 ???? ????????????     0    0    0  48.53N  38.30E  N0 104B  N2 141B
1513=PL 20 1045 17885 ???? ????????????     0    0    0  48.71N  38.84E  N2 140B  N0 103C
1514=PL 20 1112 17885 ???? ????????????     0    0    0  48.71N  38.84E  N2 140B  N0 103B
1515=PL  8 0104  5955 RUSS RL  G3A           0    0    0  49.96N  47.22E  NE  78B  U2  75C
1516=PL 15 1901  7410 RUSS IBA               0    0    0  52.43N   6.18E  U2  81B  NE  74B
1517=PL 15 1235 15340 RUSS RL  L3         1001  108   97  54.63N  38.26E  NE  70B  AL  17C  AN   1C
1518=PL 24 1031 17895 RUSS RL  B7            0    0    0  56.05N  33.57E  N3 160B  U2  65B
1519=PL 16 1641 15370 TI   RL  HD            0    0    0  52.93N  10.14E  FL  40C  PS  41C
1520=PL 18 0501  7245 UKR  RL  L5+L6       345   34   91  52.23N  17.17E  BK  80B  U2  83B  NE  80B
1521=PL 18 0331  7295 UKR  RL  B4           0    0    0   0.00N   0.00E  ne  90B  u2  82C
1522=PL 17 0401  7410 YIDD IBA               0    0    0  52.29N   5.72E  U2  83B  NE  83B
1523=R6 20 1411 17770 ???? ????????????     0    0    0  43.96N  23.91E  N0 135A  N2 167A
1524=R6 22 1415 17760 ARM  RL  L4          140   38  121  49.75N  17.38E  NE 102B  u2 114A  N0 138C  N0 138C  NE 104B
1525=R6 23 1451 17760 ARM  RL  L4         3719  831  112  48.51N  14.37E  KI  38C  SS  44C  PS  44C
1526=R6 24 1418 17760 ARM  RL  L4        23201  840  130  42.07N  25.25E  PS  45C  KI  38C  KI  39C  PS  45C
1527=R6 24 1811  9625 BR   RL  P4        14860  816  131  41.09N  27.45E  AL  45C  BE  56C  PS  43C
1528=R6 19 0504  7165 BULG RFE G3            0    0    0   0.00N   0.00E  ne  68B  u2 110B  fl  38C
1529=R6 22 2047  9555 BULG RFE G1         7999  629  127  41.35N  24.12E  PS  46C  BE  57C  AL  44C  FL  45C  LR  54C
1530=R6 14 1601 15115 BULG RFE G7          324   75  129  45.12N  26.69E  N1 153C  NE 108B  DS  33C  BE  54C  FL  43C  GI  38C
                                                                         AL  42C  PS  45C
1531=R6 15 1813 15115 BULG RFE G7         4352  648  123  42.29N  26.02E  BE  55C  PS  44C  FL  45C  LR  49C  SS  49C
1532=R6 15 1711 15115 BULG RFE G7         3449  672  125  42.32N  25.90E  BE  55C  FL  45C  GI  38C  PS  44C  SS  49C
1533=R6 14 1741 15115 BULG RFE G7         4414  538  129  45.27N  23.92E  DS  32C  FL  45C  GI  39C  PS  43C  LR  48C  AL  40C
                                                                         BE  53C
1534=R6 16 1839 15115 BULG RFE G7         9076  692  132  40.37N  33.04E  LR  48C  PS  44C  AL  40C  BE  54C  FL  42C
1535=R6 17 1801 15115 BULG RFE G7         3140   91  129  42.76N  23.05E  U2 112B  BE  52C  LR  48C  PS  44C  SS  50C  FL  47C
1536=R6 18 1841 15115 BULG RFE G7         5275   75  123  44.61N  27.32E  LR  47C  BE  54C  PS  42C  AL  41C  BK 108B
1537=R6 21 1911  9625 LAT  RFE G8            0    0    0   0.00N   0.00E  u2  99A  be  53C  lr  51C
1538=R6 21 0446  9520 RUSS RL  B7         3418  481   85  60.97N  28.69W  KI  24C  DS  33C  PS  41C
1539=R6 20 1714  9635 RUSS BBC CYPRUS     5172  613  121  47.59N  14.95E  BE  55C  FL  44C  PS  44C  GI  40C
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1540=R6 15 1016 15380 RUSS RL  P6          0    0    0  39.06N  36.34E  FL  44C  AN 355C
1541=R6 20 1150 17760 TI   RL  B7          0    0    0  48.15N  21.02E  N0 133B  N2 171B
1542=R6 24 1101 17760 TI   RL  B7          0    0    0  53.95N  13.49E  N0 135C  NE  68B
1543=R6 26 1216 17760 TI   RL  B7        279   53  161  39.94N  27.05E  N0 135A  N1 155A  N3 176A
1544=R9 12 1541 11875 AZ   RL  L7+L8     3364  575  119  48.32N  19.55E  BE  53C  FL  40C  AL  42C  PS  44C  SS  44C
1545=R9 17 1541 15340 AZ   RL  L3        2281   34  105  50.45N  11.82E  BK 101B  BE  53C  LR  46C  DS  34C  FL  41C
1546=R9 18 0715  7180 CZEC RFE B4       10868 1062  142  38.16N  47.79E  AL  36C  PS  33C  FL  40C
1547=R9 17 0641  7180 CZEC RFE B4          72   25  132  48.72N  18.59E  U2  98A  N0 138A  N2 173B  PS  47C  LR  52C  FL  44C
1548=R9 17 0744  7180 CZEC RFE B4        1798  727  129  45.64N  16.69E  FL  42C  AN   9C  LR  52C  PS  47C
1549=R9 16 0712  7180 CZEC RFE B4          0    0    0  48.73N  18.81E  U2  98B  N2 175B
1550=R9 19 0631  7180 CZEC RFE B4          0    0    0  52.32S 177.42E  U2 102A  NE  94B
1551=R9 10 1734 11875 GEOR RL  L7+L8       0    0    0   0.00N   0.00E  ne  93B  ca  52C  be  50C
1552=R9 11 1716 11875 GEOR RL  L7+L8     1659   71  146  48.27N  20.04E  FL  42C  PS  40C  BE  53C  N0 135B
1553=R9 26 0535  9520 RUSS RL  HC          0    0    0   0.00N   0.00E  u2  97B  ne  84B
1554=R9 23 0202  9540 RUSS RL  G4          0    0    0  52.39S 166.85E  U2  98B  NE  98C
1555=R9 24 1601  9615 RUSS DW              0    0    0   0.00N   0.00E  u2 100C  be  56C  lr  50C
1556=R9 10 1741 11865 RUSS DW           2346   50   93  52.52N   8.43W  U2 101B  BE  55C  FL  42C  LR  48C
1557=R9  9 0950 11875 RUSS RL  L7+L8       0    0    0  54.70N   7.45W  FL  40C  LR  47C
1558=R9 26 1210 17725 RUSS RL  P1+P2       0    0    0  44.58N  68.90W  LR  45C  BE  51C
1559=R9 21 0531 17760 RUSS RL  L4          0    0    0  52.57S 176.23E  U2 105B  NE  97B
1560=R9 25 1331 17760 TI   RL  B7        163   96  130  47.92N  17.05E  U2 104C  N3 192B  LR  47C  AL  44C
1561=RB 10 0841  5950 ???? ??????????     0    0    0  53.83N  22.99E  N0 110B  N2 165B
1562=RB 10 0842  5955 ???? ??????????     0    0    0  53.83N  22.99E  N0 110B  N2 165B
1563=RB 10 0843  5960 ???? ??????????     0    0    0  53.83N  22.99E  N0 110B  N2 165B
1564=RB 10 0843  5965 ???? ??????????     0    0    0  53.83N  22.99E  N0 110B  N2 165B
1565=RB  8 0745  5965 ???? ??????????     0    0    0  29.64N  70.00E  BE  35C  SS  42C
1566=RB 16 1142  7205 ???? ??????????     0    0    0  54.75N  19.63E  N0 112B  N2 172B
1567=RB 10 0731  5985 HUNG RFE B9B         0    0    0  49.20N  26.68E  N0 119B  NE  94B
1568=RB 10 1034  5985 HUNG RFE B9B         0    0    0   1.81S 110.24E  NE  79C  U2  75C
1569=RB 10 0831  5985 HUNG RFE B9B         0    0    0  53.39N  13.53E  U2  75C  NE  74B
1570=RB  7 1301  5970 POLI RFE B6          0    0    0  54.33N  18.38E  NE  70B  BK  60B
1571=RB 20 0908  9520 RUSS RL  L2          0    0    0  55.60N  24.79E  NE  66B  N0  99B
1572=RB 20 0741  9520 RUSS RL  HC          0    0    0  44.12N  39.12E  N0 111B  N2 143C
1573=RB 12 1034 11930 RUSS VOA PHT 5       0    0    0  55.59N  19.79E  NE  63B  U2  65D
1574=RB 17 1601  7245 UKR  VOA MUN 4       0    0    0  52.93N   8.08E  NE  68B  BE  51C
1575=RD  9 1019  6105 RUSS RL  L11         0    0    0  22.84N  52.83E  WP 324C  AN 339C
1576=RD  8 0235 11760 RUSS VOA TAN 2       0    0    0  49.62N 135.59E  WP 316C  AN 289C
1577=RD  8 0611 11970 RUSS RL  L7+L8       0    0    0   2.38N  40.79E  WP 320C  AN 348C
1578=RQ 25 0941  9510 ???? ??????????     0    0    0  57.67N  37.83E  N0  80B  N2 130B
1579=RQ  6 2331  6140 RUSS VOA WOF 8       0    0    0  50.90S 177.95E  U2  52C  NE  76B
1580=RQ 16 1131  7220 RUSS RL  L5+L6       0    0    0  55.88N  29.44E  NE  66B  LR  36C
1581=RS 23 1541  9705 POLI RFE B2          0    0    0  33.85N  54.33E  BE  44C  FL  38C
1582=RT 21 1835  9815 HEBR IBA             0    0    0  57.79N  22.99E  N1 145B  N2 162B
1583=RT 23 1931  9815 RUSS IBA             0    0    0  57.05N  24.40E  N0  92B  N1 143B
1584=RT  6 1206 11705 RUSS VOA KAV 8       0    0    0  57.10N  26.34E  N0  90B  N3 175B
1585=RT 13 1235 15120 RUSS VOA WOF 3       0    0    0  55.45N  15.32E  U2  63C  NE  58B
1586=RV 20 0711  9520 RUSS RL  HC       5003  253  128  45.84S 167.65E  U2  58B  NE  68B  NE  67B
1587=S5 21 2355  9596 ???? ??????????     0    0    0  49.36N  12.56E  N0 154A  N1 180B
1588=S5  6 1101  6020 CZEC DW            936   31   84  52.32S 176.40E  U2 100A  NE 100B  NE 100B  U2  97A
1589=S5  7 1131  6020 CZEC DW              0    0    0  52.51S 165.62E  U2  99B  NE  99B
1590=S5 21 2332  9595 CZEC RFE G2A         0    0    0  49.93N  12.51E  U2 100B  N0 153A
1591=S5 22 1920  9725 CZEC RFE G9+G10     911   25   80  52.36S 177.19E  U2 103A  NE  95B  U2 102A
1592=SB  7 1906  6070 RUSS BBC CYPRUS      0    0    0  68.08N  36.07E  N2  90B  N3 120C
1593=SB 23 0306  9520 RUSS RL  P2          0    0    0  67.70N  34.12E  N1  70B  N2  95C
1594=SB 23 0035  9750 RUSS RL  L3        3366 1198  150  38.86N  51.87E  DS  15C  DS  15C  SS  44C
1595=SB 11 1811 11935 RUSS RL  P3        2910  406   75  77.70N  30.24W  AL  15C  DS  12C  GI  18C
1596=SB  6 2016 11935 RUSS RL  P3        1085  448  149  69.85N  30.15E  GI  28C  LR  22C  AN   2C  AL  24C  DS   4C  FE   2C
1597=SB 15 0905 15410 RUSS VOA PHT10       0    0    0  59.38N  30.00E  NE  53B  AN   0C
1598=SB  7 1701 11885 UKR  RL  P1          0    0    0  68.36N  25.02E  N1  60C  AL  24C
1599=SB  9 1810 11885 UKR  RL  P6        838  479  145  75.10N  30.93E  AN 360C  KI  13C  BE  22C  AL  12C
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1600=SB 10 1750 11885 UKR  RL   P6        2853  890  143  57.72N  28.08E  FL  36C  DS   9C  FE  21C
1601=SF 20 0505  9680 RUSS RL   L1           0    0    0   0.00N   0.00E  ne 180B  n1  90B  n3 188B
1602=SF 24 0512  9680 RUSS RL   L1           0    0    0  54.97N  59.54E  U2  61A  N3 118B
1603=SF 11 0741 11970 RUSS RL   L7+L8        0    0    0   0.00N   0.00E  f1  57C  be  25C
1604=SF 20 0512  9625 UKR  RL   G13+G14      0    0    0  57.47N  27.48E  U2  60C  NE  59B
1605=SM 20 2147  9570 ???? ???????????      0    0    0  40.95N  54.09E  N0  99B  N2 125C
1606=SM 10 1811 11760 ???? ???????????      0    0    0  35.80N  55.37E  FL  36C  DS  13C
1607=SM  8 0841 11925 ???? ???????????      0    0    0  50.92N  41.96E  N0  95C  N2 133B
1608=SM  8 0845 11940 ???? ???????????      0    0    0  50.92N  41.96E  N2 133B  N0  95C
1609=SM  8 0001  6135 CZEC RFE  G1A        994   41  103  51.34N  33.10E  BK  80B  NE  80B  U2  79A
1610=SM  9 1921  6135 CZEC RFE  G1A          0    0    0  31.37N  51.83E  N0 111B  N2 133B
1611=SM 12 0001  6135 CZEC RFE  G1A          0    0    0  51.58N  27.18E  BK  80B  NE  84B
1612=SM  7 2141  6135 CZEC RFE  G1A          0    0    0   0.00N   0.00E  ne  83B  u2  80B  ne  87B
1613=SM 10 0005  6135 CZEC RFE  G1A          0    0    0   0.00N   0.00E  ne  79B  u2  90C
1614=SM 19 2341  7125 RUSS VOA  KAV 2        0    0    0  40.19N  53.96E  DS  13C  N0 100B
1615=SM 16 1921  7295 RUSS RL   HA           0    0    0  52.14N  34.33E  N0 100B  U2  76B
1616=SM 20 0031  9505 RUSS RL   L1          88    8   71  52.58N   6.49E  U2  79A  NE  68B  NE  68B
1617=SM 25 1231  9565 RUSS VOA  WOF 7        0    0    0   0.00N   0.00E  u2  83C  n0  97B  ne  68B
1618=SM 22 1835  9635 RUSS BBC  CYPRUS       0    0    0  52.36N   6.13E  NE  79B  U2  82C
1619=SM 21 2211  9680 RUSS RL   B6           0    0    0   0.00N   0.00E  ne  83B  u2  84B
1620=SM 22 2234  9715 RUSS DW               0    0    0  52.14N  23.95E  NE  83B  U2  80C
1621=SM 22 1705  9815 RUSS IBA              0    0    0   8.64S 111.84E  NE  82B  U2  78B
1622=SM 12 1634 11780 RUSS BBC  WOOF        0    0    0  52.60N   8.58E  NE  79B  U2  80C
1623=SM 18 0631 15370 RUSS RL   HD           0    0    0  53.27N  36.03E  N0  95A  N2 140B
1624=SM 15 1431 15585 RUSS IBA              0    0    0  52.10N  22.14E  BK  78B  NE  84B
1625=SM 22 1201 17875 RUSS DW             205   45   90  55.22N  25.41E  N0 100C  NE  68B  NE  68B
1626=SM 22 1031 17895 RUSS RL   B7         543   77  124  45.36N  51.69E  N0  95A  BK  84A  U2  80B  AN 354C
1627=SM 22 1120 17895 RUSS RL   L4         202   41  110  53.29N  32.98E  NE  73B  N0  95B  N0 100B  NE  79B
1628=SM 18 0901 21510 RUSS RL   HB           0    0    0   0.00N   0.00E  bk  76B  ne  76B  u2  82B
1629=SM 12 0531  6170 UKR  RL   B1           0    0    0  51.98S 179.37E  U2  88B  NE  88B
1630=SM 13 0241  7190 UKR  VOA  TAN10        0    0    0   0.00N   0.00E  u2  84B  ne  84B  ne  75B
1631=ST 10 1931 11885 UKR  RL   G4B         53   35  161  57.54N  25.95E  U2  56B  NE  61B  N2 155A
1632=SU 16 0035  7165 CZEC RFE  G1           0    0    0   0.00N   0.00E  ne  76B  n0  89B  be  72C
1633=SU 16 0201  7155 EST  RFE  G2           0    0    0  56.69S 113.35E  N0 119C  N2 113C
1634=SU 15 0231  7155 LAT  RFE  G2           0    0    0  45.56N  63.71E  N3 122C  NE  76C
1635=TK  7 1846  6110 ???? ???????????? 2609  179  154  43.88N  63.67E  N1 103C  N3 123B  N2 112B
1636=TK  6 0311  6120 ???? ???????????      0    0    0  38.55N  70.16E  PS  20C  SS  35C
1637=TK 25 0616  9500 ???? ???????????      0    0    0  55.48N  51.68E  N1 101B  N2 113B
1638=TK 24 0615  9510 ???? ???????????      0    0    0  56.33N  54.54E  N3 123B  N2 108B
1639=TK 21 0111  9515 ???? ???????????      0    0    0  49.90N  44.69E  SS  37C  BE  39C
1640=TK 26 2314  9515 ???? ???????????      0    0    0  20.25N  82.45E  N2 105B  N1 100B
1641=TK 26 0350  9535 ???? ???????????   5980  873   75  60.12S  57.88E  LR 147C  BE 142C  AL 131C  ps  29C  wp 321C
1642=TK 12 1041 11870 ???? ???????????      0    0    0  25.31S  99.13E  FL  34C  LR  15C
1643=TK 24 1811  9625 BR   RL   P4        1276  183  149  37.64N  73.32E  U2  77B  N2 100B  WP 325C  N1 100A
1644=TK  6 1813 11970 BR   RL   P5        1203  586  178  41.83N  67.62E  AL   8C  AN 346C  DS   4C  FE 344C  WP 325C  SS  37C
                                                                          FL  41C  WP 323C  AL   9C  SS  37C  DS   3C  FE 348C
1645=TK 11 1819 11970 BR   RL   P5        1946 1142    1  33.75N  66.12E  DS 359C  FE 356C  WP 322C  SS  42C
1646=TK 21 0402  9505 EST  RFE  G15+G16   3003  132  111  50.59N  47.03E  U2  75B  NE  76B  LR  30C  SS  36C
1647=TK 21 1541  9735 EST  VOA  MUN 2      583   19   81  52.70N   9.03E  U2  77B  NE  77B  NE  80B
1648=TK 10 1531 11960 EST  VOA  MUN 1      689   42   95  52.64N  26.71E  BK  77B  U2  78B  NE  77B
1649=TK 11 1714 11970 EST  RFE  P5           0    0    0  69.57N  67.53E  DS   1C  FE 356C
1650=TK 22 0434  9505 LAT  RFE  G15+G16     0    0    0   0.00N   0.00E  ne  93B  u2  78B
1651=TK 20 0444  9505 LAT  RFE  G15+G16   218    2   74  52.24N   5.09E  U2  80C  NE  79B  NE  69B  NE  79B
1652=TK 21 1912  9625 LAT  RFE  G8        1925  362  127  40.77N  57.82E  WP 329C  FL  43C  U2  82B
1653=TK 10 1541 11970 LAT  RFE  P5        2472   34   76  53.73N  12.94E  NE  68B  NE  71B  FL  31C
1654=TK 21 1631  9555 LITH RFE  P4         491   83  115  51.80N  39.36E  N0  88B  NE  83B  KI  25C  SS  40C  FL  37C  GI  29C
1655=TK 26 2031  9625 LITH RFE  G8           0    0    0  52.47N   7.15E  U2  81B  NE  79B
1656=TK  7 1603 11970 LITH RFE  P5        1138  386  126  43.64N  67.73E  NE  76B  AN 333C  WP 326C
1657=TK 13 0101  7145 RUSS RL   B8        1414   29   87  53.14N  16.12E  U2  77B  NE  78B  NE  78B  NE  78B
1658=TK 15 0210  7145 RUSS RL   B8        1991  761  168  33.31N  66.69E  AL   8C  PS  47C  SS  39C  DS   8C  AN 325C  LR  18C
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												FE	5C								
1659=TK	24	0627	9505	RUSS	RL	G1A	0	0	0	47.13N	64.34E	N2	108B	N3	120B						
1660=TK	26	0611	9505	RUSS	RL	G1A	0	0	0	3.13S	87.05E	N0	99B	N2	109B						
1661=TK	20	2012	9520	RUSS	RL	B7	140	40	97	54.54N	24.09E	NE	71B	N0	105B	NE	71B				
1662=TK	21	2341	9520	RUSS	RL	G8	0	0	0	35.02N	70.58E	WP	320C	N2	110B						
1663=TK	22	2043	9520	RUSS	RL	B7	0	0	0	19.84N	49.50E	FE	8C	WP	325C						
1664=TK	21	0011	9520	RUSS	RL	P2	0	0	0	51.79N	38.92E	U2	75B	N0	96B						
1665=TK	20	0012	9520	RUSS	RL	P2	543	169	135	47.13N	62.84E	N2	110B	DS	358C	AN	318C	FE	4C	1r	153C
												NE	79B	NE	69B						
1666=TK	24	2321	9520	RUSS	RL	G8	0	0	0	53.70N	150.25E	AN	284C	WP	323C						
1667=TK	25	0101	9520	RUSS	RL	P2	555	170	139	46.63N	54.77E	N2	120B	NE	80B	be	138C	LR	18C	PS	27C
1668=TK	25	1820	9520	RUSS	RL	HD	0	0	0	51.25S	176.09E	U2	75B	N0	40B						
1669=TK	25	2126	9520	RUSS	RL	B7	0	0	0	24.44N	62.71E	WP	317C	FE	355C						
1670=TK	26	0117	9520	RUSS	RL	P2	2740	639	50	57.48S	79.56E	AL	155C	LR	140C	BE	141C	u2	78A		
1671=TK	20	0141	9520	RUSS	RL	P2	2975	485	103	55.09N	2.11E	SS	37C	LR	43C	BE	51C				
1672=TK	26	2011	9520	RUSS	RL	B7	755	401	135	41.17N	63.18E	U2	78B	AN	340C	FE	357C	WP	320C	FE	2C
												AN	332C								
1673=TK	26	2119	9520	RUSS	RL	B7	2232	900	10	42.42N	66.01E	AN	331C	FE	4C	WP	323C	LR	21C		
1674=TK	20	0431	9540	RUSS	RL	L4	850	155	131	41.74N	71.14E	U2	80C	BK	80A	N2	102B	NE	69B	NE	69B
1675=TK	22	0231	9540	RUSS	RL	G4	0	0	0	52.58N	7.98E	U2	80B	NE	78B						
1676=TK	24	0341	9540	RUSS	RL	L4	0	0	0	0.00N	0.00E	ss	34C	lr	154C						
1677=TK	20	0314	9555	RUSS	RL	G1B	0	0	0	52.98N	8.67E	U2	76B	NE	70B						
1678=TK	24	0032	9555	RUSS	RL	G1B	261	135	54	44.69S	100.08E	u2	79A	ne	72B	n1	100B	N2	108B	CA	150C
												AL	153C	BE	142C						
1679=TK	21	0101	9555	RUSS	RL	G1B	976	81	113	50.38N	46.09E	N0	90C	U2	76A	NE	75B				
1680=TK	26	0335	9555	RUSS	RL	G1B	0	0	0	0.00N	0.00E	ne	78B	n2	101C	a1	146C				
1681=TK	20	0331	9750	RUSS	RL	L3	1115	288	131	40.71N	70.62E	U2	77B	N0	75C	NE	79B	BE	41C	AN	327C
1682=TK	21	0201	9750	RUSS	RL	L3	5635	197	122	44.11S	159.13E	BK	80A	NE	76B	NE	76B	NE	79B	BK	80A
1683=TK	24	0002	9750	RUSS	RL	L3	0	0	0	0.00N	0.00E	ne	64B	n1	105B	n0	90C				
1684=TK	24	0131	9750	RUSS	RL	L3	996	187	133	41.28N	64.39E	U2	78B	NE	80B	BK	82B	N1	105B		
1685=TK	20	0241	9750	RUSS	RL	L3	0	0	0	32.16N	74.43E	AN	323C	SS	37C						
1686=TK	26	0035	9750	RUSS	RL	L3	935	182	134	40.08N	67.98E	U2	78A	NE	76B	N2	109B				
1687=TK	23	2105	9815	RUSS	IBA		0	0	0	0.00N	0.00E	ne	89B	u2	75C						
1688=TK	11	1941	11770	RUSS	RL	B3	0	0	0	39.38N	55.48E	SS	42C	GI	20C						
1689=TK	7	1242	11835	RUSS	VOA	WOF 9	5987	806	139	49.74N	52.37E	BE	30C	LR	32C	PS	30C	SS	37C		
1690=TK	8	1058	11970	RUSS	RL	P5	0	0	0	0.00N	0.00E	f1	37C	lr	32C	ps	39C				
1691=TK	7	0940	11970	RUSS	RL	P5	1979	954	150	35.72N	66.19E	BE	43C	FL	28C	WP	324C	LR	20C	SS	40C
1692=TK	7	0301	6125	UKR	VOA	WOF 6	625	25	76	53.19N	10.23E	U2	75C	NE	71B	NE	71B				
1693=TK	8	0235	6125	UKR	VOA	WOF 6	0	0	0	27.37N	83.25E	NE	81B	AN	314C						
1694=TK	6	0314	6125	UKR	VOA	WOF 6	0	0	0	50.81N	62.51E	AN	338C	PS	20C						
1695=TK	11	2201	6170	UKR	RL	L2	481	100	131	48.70N	59.05E	U2	81C	N0	85A	NE	70B	N2	110B	AN	333C
												FL	44C	SS	35C						
1696=TK	11	1911	6170	UKR	RL	L2	1603	900	138	48.61N	23.75E	AN	7C	AL	36C	SS	48C				
1697=TK	8	1850	6170	UKR	RL	L2	0	0	0	57.50N	26.30E	BE	40C	N0	88B						
1698=TK	7	1841	6170	UKR	RL	L2	118	3	70	52.25N	5.11E	NE	68B	NE	79B	U2	78B				
1699=TK	16	0415	7295	UKR	RL	B4	0	0	0	30.88N	75.62E	U2	80A	N0	89B						
1700=TK	21	0211	9760	UKR	VOA	TAN 5	4623	197	117	47.87S	167.95E	BK	79B	NE	76B	u2	77B	NE	75B	NE	78B
1701=TK	24	0201	9760	UKR	VOA	TAN 5	0	0	0	0.00N	0.00E	bk	80B	ne	75B	u2	77B				
1702=TK	25	0301	9760	UKR	VOA	TAN 5	0	0	0	53.34N	24.18E	NE	77B	N0	110C						
1703=TR	17	0153	7258	????	?????????????		0	0	0	47.24N	32.00E	N1	142A	N0	115A						
1704=TR	26	0635	9650	POLI	VOA	TAN 1	0	0	0	53.51N	25.59E	NE	76B	N0	107B						
1705=TR	16	0133	7255	RUSS	RL	HB	178	63	150	49.90N	30.41E	N0	111B	N2	155B	N3	167B				
1706=TR	22	1705	9815	RUSS	IBA		0	0	0	51.65N	30.64E	NE	82B	N0	106A						
1707=TR	24	1631	17855	UKR	VOA	TAN 7	0	0	0	0.00N	0.00E	u2	95B	lr	43C	ne	93B				
1708=TU	10	1816	11760	????	?????????????		3622	946	141	41.99N	48.30E	AL	28C	DS	20C	FL	38C	SS	43C		
1709=TU	10	1916	11775	????	?????????????		0	0	0	55.16S	163.23E	N0	83A	N2	63B						
1710=TU	6	1048	11888	????	?????????????		0	0	0	40.39N	77.03E	N0	80B	N2	100B						
1711=TU	13	0401	7180	AZ	RL	L2	481	38	78	55.05N	21.81E	BK	60B	NE	68B	NE	67B				
1712=TU	9	2231	5955	BR	RL	P1	1278	64	92	55.23N	32.60E	U2	67B	NE	69B	BE	35C	PS	40C		
1713=TU	20	2310	9435	HEBR	IBA		0	0	0	53.88N	19.58E	AL	39C	SS	38C						

1714=TU	10	1550	11970	LAT	RFE	P5	0	0	0	46.49N	70.21E	U2	68B	NE	71B								
1715=TU	24	0331	9505	LITH	RFE	G1	0	0	0	0.00N	0.00E	ne	104B	u2	68B								
1716=TU	17	0632	7130	POLI	VOA	KAV 1	0	0	0	55.20N	44.30E	N0	83B	NE	67B								
1717=TU	10	2331	5955	RUSS	RL	P1	0	0	0	55.74N	26.70E	U2	66B	NE	66B								
1718=TU	10	0105	5955	RUSS	RL	G3A	0	0	0	55.15N	24.32E	NE	68B	U2	68C								
1719=TU	7	0003	5955	RUSS	RL	HC	0	0	0	58.33N	33.40E	NE	58B	N0	80C								
1720=TU	7	2204	6010	RUSS	DW		0	0	0	50.06S	172.84E	NE	79B	U2	70B								
1721=TU	10	2226	6010	RUSS	DW		0	0	0	55.41N	32.06E	N0	92B	NE	68B								
1722=TU	8	2231	6010	RUSS	DW		0	0	0	46.37S	164.11E	U2	68B	NE	75B								
1723=TU	7	0231	6025	RUSS	VOA	WOF 2	899	114	108	53.81N	45.89E	U2	65C	NE	71B	N0	85C						
1724=TU	7	0331	6025	RUSS	VOA	WOF 2	0	0	0	47.23S	169.30E	U2	60C	NE	70B								
1725=TU	10	2134	6085	RUSS	VOA	KAV 1	0	0	0	5.69N	95.73E	NE	86B	N0	87C								
1726=TU	12	2332	6085	RUSS	VOA	KAV 1	0	0	0	45.68S	163.22E	U2	67B	NE	74B								
1727=TU	7	0831	6105	RUSS	RL	L11	1186	30	85	54.86N	23.51E	U2	68B	NE	70B	NE	70B	NE	70B	NE	68B		
1728=TU	10	1501	6105	RUSS	RL	L11	0	0	0	55.52N	37.58E	N0	87A	U2	66B								
1729=TU	7	0611	6105	RUSS	RL	L11	470	72	105	54.99N	42.23E	NE	68B	NE	68B	N0	85B						
1730=TU	9	1305	6105	RUSS	RL	L11	0	0	0	47.90N	55.99E	NE	77B	N0	88B								
1731=TU	8	1405	6105	RUSS	RL	L11	573	40	77	54.15N	13.89E	NE	72B	BE	39C	U2	66B						
1732=TU	9	0804	6105	RUSS	RL	L11	6135	514	138	28.76N	68.20E	NE	91B	BE	33C	FL	41C	u2	65B				
1733=TU	6	0731	6105	RUSS	RL	L11	210	49	101	55.33N	29.27E	U2	68C	NE	68B	N0	95B						
1734=TU	10	1331	6105	RUSS	RL	L11	613	85	109	54.32N	44.55E	U2	66B	N0	85B	NE	70B						
1735=TU	11	1201	6105	RUSS	RL	L11	266	39	95	54.58N	29.92E	U2	67B	N0	95C	NE	72B	U2	67B	NE	76B		
1736=TU	10	0401	6130	RUSS	DW		0	0	0	53.22N	54.85E	N0	80B	NE	68B								
1737=TU	7	0435	6130	RUSS	DW		340	45	107	56.87N	42.06E	NE	63B	NE	63B	N0	80A						
1738=TU	13	2311	7125	RUSS	VOA	KAV 2	1299	41	85	55.44N	25.51E	NE	67B	U2	67B	NE	67B						
1739=TU	18	1541	7130	RUSS	DW		0	0	0	54.30N	38.27E	U2	69C	N0	90B								
1740=TU	15	0204	7145	RUSS	RL	B8	0	0	0	28.19S	140.98E	NE	71B	U2	66B								
1741=TU	15	1934	7170	RUSS	VOA	KAV 5	0	0	0	0.00N	0.00E	ne	90B	u2	65B								
1742=TU	18	1541	7170	RUSS	VOA	KAV 5	0	0	0	54.30N	38.27E	U2	69C	N0	90B								
1743=TU	18	1701	7170	RUSS	VOA	KAV 5	0	0	0	44.22S	161.61E	U2	65A	NE	72B								
1744=TU	16	2105	7170	RUSS	VOA	KAV 5	0	0	0	54.34N	48.11E	NE	68B	U2	66B								
1745=TU	18	0031	7180	RUSS	RL	L2	0	0	0	26.56S	140.39E	U2	65A	NE	70B								
1746=TU	13	2312	7190	RUSS	RL	G3B	2410	54	91	55.69N	34.26E	NE	67B	U2	66B	NE	67B						
1747=TU	19	0001	7245	RUSS	RL	L5+L6	0	0	0	45.86S	166.86E	U2	60C	NE	69B								
1748=TU	19	2241	7255	RUSS	RL	L4	0	0	0	46.52N	37.84E	ss	42C	BE	45C								
1749=TU	18	1801	7270	RUSS	VOA	MUN 2	0	0	0	46.71S	166.29E	U2	65B	NE	73B								
1750=TU	14	2231	7270	RUSS	VOA	MUN 2	4427	120	116	50.10N	65.84E	BK	68A	NE	69B	U2	64B	NE	69B				
1751=TU	17	1631	7295	RUSS	RL	HA	0	0	0	55.59N	28.30E	NE	67B	N0	95C								
1752=TU	20	0611	9505	RUSS	RL	G1A	0	0	0	45.49N	77.59E	NE	68B	U2	65B								
1753=TU	20	2311	9505	RUSS	RL	L1	0	0	0	55.16N	24.32E	NE	68B	U2	68B								
1754=TU	21	0002	9505	RUSS	RL	L1	0	0	0	51.36S	177.71E	U2	68B	NE	82B								
1755=TU	21	1301	9520	RUSS	RL	L2	0	0	0	55.97N	32.16E	BK	62A	NE	66B								
1756=TU	22	0701	9520	RUSS	RL	HC	566	43	86	55.02N	27.39E	BK	64B	NE	70B	U2	68B						
1757=TU	22	0812	9520	RUSS	RL	HC	157	64	104	55.49N	34.49E	N1	125C	U2	66B	NE	68B						
1758=TU	20	0908	9520	RUSS	RL	L2	480	63	123	50.94S	177.75E	NE	66B	NE	73B	U2	64B						
1759=TU	20	0611	9520	RUSS	RL	HC	0	0	0	25.00S	139.95E	U2	64A	NE	69B								
1760=TU	20	0711	9520	RUSS	RL	HC	303	51	103	55.19N	38.95E	NE	70B	N0	90C	NE	68B	NE	67B	N0	85B		
1761=TU	21	1511	9520	RUSS	RL	L2	1169	66	80	55.19N	17.62E	LR	39C	AL	40C	U2	66B						
1762=TU	25	0931	9520	RUSS	RL	L2	0	0	0	54.21N	38.57E	N0	90C	NE	71B								
1763=TU	26	0801	9520	RUSS	RL	HC	428	52	113	54.70N	43.27E	NE	69B	N0	85A	U2	66B						
1764=TU	26	0901	9520	RUSS	RL	L2	260	40	109	55.52N	33.84E	NE	70C	N0	90B	N0	90B	N0	90B	U2	65B		
1765=TU	26	1531	9520	RUSS	RL	L2	140	28	75	53.05N	12.71E	BK	60B	NE	72B	U2	80B						
1766=TU	25	1233	9565	RUSS	VOA	WOF 7	0	0	0	55.23N	38.68E	N0	87B	NE	68B								
1767=TU	26	1311	9565	RUSS	VOA	WOF 7	348	33	109	56.39N	33.82E	U2	64B	N0	87B	N0	87A						
1768=TU	23	1301	9605	RUSS	BBC	MASIRA	158	30	87	56.25N	31.76E	U2	65B	BK	60A	NE	70B	N0	87B				
1769=TU	25	1301	9605	RUSS	BBC	MASIRA	347	58	96	55.79N	33.49E	N0	89C	U2	67B	NE	66B						
1770=TU	22	1605	9615	RUSS	DW		0	0	0	45.78N	75.24E	NE	69B	U2	66B								
1771=TU	26	1601	9615	RUSS	DW		0	0	0	52.63N	12.12E	BK	61B	NE	82B								
1772=TU	22	0515	9680	RUSS	RL	L1	0	0	0	52.40N	52.76E	N0	83B	U2	68B								
1773=TU	21	0201	9750	RUSS	RL	L3	2951	121	122	48.47S	170.43E	U2	65A	NE	69B	NE	74B						

1774=TU	25	0231	9770	RUSS	VOA	TAN 1	0	0	0	52.84N	32.56E	NE	77B	N0	100C																
1775=TU	12	1812	11770	RUSS	RL	B3	5085	820	141	38.61N	53.46E	AL	33C	BE	36C	SS	44C	FL	40C	PS	32C										
1776=TU	11	1455	11770	RUSS	RL	HB	7428	1048	137	39.59N	54.95E	BE	40C	FL	34C	SS	42C														
1777=TU	12	1442	11770	RUSS	RL	HB	0	0	0	47.51N	41.78E	AL	33C	SS	40C																
1778=TU	6	1449	11770	RUSS	RL	HB	1630	78	87	55.72N	26.05E	BE	41C	SS	39C	U2	66B														
1779=TU	6	1304	11780	RUSS	BBC	WOOF	0	0	0	54.01N	44.18E	NE	70B	N0	86A																
1780=TU	12	1304	11780	RUSS	BBC	WOOF	0	0	0	40.31S	154.85E	NE	72B	U2	66A																
1781=TU	11	1601	11780	RUSS	BBC	WOOF	544	24	87	54.64N	31.40E	U2	67B	BK	68A	BK	68A	NE	64B												
1782=TU	10	1301	11780	RUSS	BBC	WOOF	770	45	93	55.55N	36.00E	U2	66A	BK	64B	NE	68B														
1783=TU	8	1731	11865	RUSS	DW		0	0	0	0.00N	0.00E	u2	68A	ne	68B	bk	74B														
1784=TU	10	1743	11865	RUSS	DW		2072	62	92	58.92N	13.03E	FL	42C	DS	21C	N0	85C														
1785=TU	7	1331	11865	RUSS	VOA	WOF 4	0	0	0	50.29S	174.36E	U2	67A	NE	78B																
1786=TU	8	1203	11865	RUSS	VOA	WOF 4	115	65	123	55.54N	37.12E	NE	68B	U2	65B	N2	135B														
1787=TU	8	1441	11875	RUSS	RL	L7+L8	2691	555	112	58.16N	14.56E	FL	32C	BE	39C	SS	40C	GI	36C												
1788=TU	10	1446	11875	RUSS	RL	L7+L8	1060	122	93	54.62N	27.61E	U2	70C	FL	39C	GI	31C	AL	30C	BE	43C										
1789=TU	12	1454	11875	RUSS	RL	L7+L8	4972	816	116	48.80N	23.30E	LR	45C	SS	43C	FL	40C														
1790=TU	6	0815	11875	RUSS	RL	L7+L8	0	0	0	53.66N	40.29E	U2	70C	N0	90C																
1791=TU	11	1411	11875	RUSS	RL	L7+L8	0	0	0	53.90N	27.93E	BE	43C	SS	37C																
1792=TU	12	0815	11875	RUSS	RL	L7+L8	249	56	99	56.20N	30.94E	N0	90C	N0	90C	NE	65B														
1793=TU	8	1133	11875	RUSS	RL	L7+L8	1376	55	90	54.77N	28.29E	NE	70B	U2	70B	BE	39C														
1794=TU	9	0920	11875	RUSS	RL	L7+L8	45	2	37	52.25N	5.08E	NE	69B	NE	75B	U2	67B	NE	68B												
1795=TU	7	1401	11875	RUSS	RL	L7+L8	2689	219	128	44.97N	67.59E	U2	69B	NE	77B	N0	82B														
1796=TU	12	1104	11875	RUSS	RL	L7+L8	1106	119	111	52.33N	48.71E	NE	75B	U2	67B	N0	85C														
1797=TU	10	0915	11875	RUSS	RL	L7+L8	567	78	109	54.80N	41.45E	U2	68B	N0	86B	U2	66B														
1798=TU	12	0915	11875	RUSS	RL	L7+L8	204	46	95	56.00N	28.70E	N0	95C	N0	90C	NE	65B	U2	66B												
1799=TU	9	1344	11875	RUSS	RL	L7+L8	1465	30	76	53.93N	13.94E	NE	66B	NE	71B	NE	70B	AL	28C												
1800=TU	9	1105	11875	RUSS	RL	L7+L8	2012	41	88	55.14N	31.03E	NE	69B	U2	68B	NE	69B	NE	69B												
1801=TU	11	1501	11885	RUSS	RL	HB	0	0	0	4.42N	111.86E	NE	74B	U2	70B																
1802=TU	9	0905	11885	RUSS	RL	B4	859	37	75	54.51N	15.34E	NE	68B	U2	65C	NE	65B														
1803=TU	9	1350	11885	RUSS	RL	B4	0	0	0	7.53N	113.29E	NE	71B	U2	67B																
1804=TU	10	1431	11885	RUSS	RL	B4	349	40	76	54.41N	18.79E	U2	70C	BK	60B	NE	70B														
1805=TU	10	1541	11905	RUSS	DW		0	0	0	54.87N	16.26E	NE	64B	U2	67A																
1806=TU	10	1941	11915	RUSS	RL	P6	0	0	0	56.61N	38.45E	U2	63B	N0	83A																
1807=TU	7	1949	11915	RUSS	RL	P6	0	0	0	62.14N	29.95E	N2	135B	N1	110B																
1808=TU	7	0101	11935	RUSS	RL	P3	0	0	0	0.00N	0.00E	u2	60D	be	56C	f1	38C														
1809=TU	7	0211	11935	RUSS	RL	P3	0	0	0	49.49N	21.20E	BE	50C	AL	42C																
1810=TU	10	1541	11945	RUSS	DW		167	19	70	53.89N	10.07E	NE	67B	NE	57B	U2	67A														
1811=TU	8	0833	11965	RUSS	VOA	PHT 9	0	0	0	54.07N	10.88E	NE	60C	U2	68C																
1812=TU	10	1211	11970	RUSS	RL	P5	6209	100	103	54.26N	47.54E	NE	69B	ne	78B	U2	66B	NE	68B												
1813=TU	9	0733	11970	RUSS	RL	L7+L8	0	0	0	54.32N	16.01E	NE	68B	U2	70B																
1814=TU	12	1431	11970	RUSS	RL	P5	0	0	0	52.55N	12.06E	BK	62B	FL	40C																
1815=TU	6	0901	11970	RUSS	RL	P5	4375	132	118	49.36N	68.25E	BK	68A	NE	68B	U2	65B	U2	66B												
1816=TU	10	1441	11970	RUSS	RL	P5	1477	42	87	55.26N	26.73E	NE	68B	NE	70B	U2	66B														
1817=TU	9	1333	11970	RUSS	RL	P5	292	39	109	55.91N	37.22E	N0	86A	NE	68B	U2	60C														
1818=TU	10	2001	11970	RUSS	RL	P5	396	50	102	55.41N	40.81E	U2	65A	N0	85B	NE	68B	NE	68B	ne	88B										
1819=TU	15	0811	15130	RUSS	RL	P3	771	29	84	55.29N	23.14E	U2	67A	NE	66B	NE	69B														
1820=TU	15	1341	15130	RUSS	RL	P3	1287	36	85	55.75N	26.87E	NE	67B	NE	65B	NE	67B	U2	65B												
1821=TU	15	1111	15130	RUSS	RL	P3	347	48	98	54.41N	34.62E	NE	76B	NE	69B	NE	70B	N0	90C												
1822=TU	15	0711	15130	RUSS	RL	G3A	0	0	0	54.63N	15.62E	U2	68B	NE	65B																
1823=TU	15	1345	15225	RUSS	VOA	WOF 8	0	0	0	0.00N	0.00E	u2	65C	ne	77B	ne	68B														
1824=TU	15	1349	15235	RUSS	VOA	WOF 2	689	34	72	54.34N	13.58E	NE	66B	NE	63B	U2	67C														
1825=TU	19	1341	15290	RUSS	RL	B8	3082	434	159	24.66S	90.78E	AL	9C	LR	34C	PS	28C														
1826=TU	15	0801	15290	RUSS	RL	HA	494	58	102	54.54N	39.82E	U2	69A	NE	68B	N0	86C	AN	358C												
1827=TU	16	1311	15290	RUSS	RL	B8	218	19	63	53.73N	9.32E	NE	58B	NE	58B	NE	58B	U2	69B												
1828=TU	17	1350	15290	RUSS	RL	B8	20517	1132	149	12.74N	71.07E	BE	46C	FL	37C	LR	35C														
1829=TU	17	0802	15340	RUSS	RL	L3	0	0	0	45.68S	163.22E	U2	67A	NE	74B																
1830=TU	16	0731	15340	RUSS	RL	L3	277	36	98	55.51N	37.07E	NE	70B	U2	67A	NE	71B	NE	62B	NE	67B	N0	85B								
1831=TU	14	0731	15340	RUSS	RL	L3	406	66	107	54.15N	38.77E	U2	68B	N0	90B	NE	72B														
1832=TU	16	1041	15340	RUSS	RL	L3	1084	42	75	55.88N	20.52E	U2	64C	NE	62B	NE	62B														
1833=TU	16	1041	15370	RUSS	RL	HD	959	38	81	55.26N	21.18E	NE	66B	NE	66B	U2	67B														

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1834=TU 15 1041 15370 RUSS RL  HD          0    0    0  54.96N  39.69E  U2  67A  N0  87B
1835=TU 16 0741 15370 RUSS RL  HD        319   49   99  55.81N  38.38E  NE  65B  NE  65B  U2  66B  NE  69B  N0  85B
1836=TU 13 1104 15370 RUSS RL  HD          0    0    0  55.55N  22.11E  NE  65B  U2  66B
1837=TU 16 0941 15370 RUSS RL  HD       1661   41   87  56.32N  31.25E  U2  64B  NE  65B  NE  65B  NE  64B
1838=TU 16 0941 15445 RUSS RL  P4       7412   77  102  54.08N  43.64E  U2  68C  NE  70B  NE  70B
1839=TU 16 1041 15445 RUSS RL  P4      16791  180  125  46.12N  72.77E  U2  67A  NE  70B  NE  70B
1840=TU 16 0741 15445 RUSS RL  P4       1276   36   85  55.40N  25.83E  U2  67B  NE  67B  NE  67B  NE  68B
1841=TU 19 1101 15445 RUSS RL  P4          0    0    0  54.49N  50.30E  U2  65B  NE  67B
1842=TU 20 1420 17710 RUSS IBA             0    0    0  53.88N  11.36E  U2  70C  NE  64B
1843=TU 25 1031 17725 RUSS RL  P1+P2       0    0    0  41.37S 155.73E  U2  67B  NE  73B
1844=TU 21 0843 17725 RUSS RL  P1+P2       0    0    0  54.47N  44.02E  U2  67B  N0  85B
1845=TU 21 1035 17750 RUSS RL  HC          0    0    0  57.59N  43.30E  U2  60C  AL  26C
1846=TU 23 1731 17770 RUSS RL  G13+G14     0    0    0  56.31N  39.83E  N0  83A  BK  62B
1847=TU 21 1721 17770 RUSS RL  G13+G14   107   48  145  59.41N  31.30E  N0  76C  N1 120B  N3 162B
1848=TU 21 1405 17865 RUSS RL  P2          0    0    0  56.37N  29.06E  U2  64A  NE  64B
1849=TU 25 1501 17865 RUSS RL  P2          0    0    0   0.00N   0.00E  u2  66B  ne  88B
1850=TU 21 1101 17895 RUSS RL  L4        394   53  111  54.83N  47.11E  BK  66B  N0  82A  U2  65A
1851=TU 23 1131 17895 RUSS RL  L4       1051   59   92  55.26N  36.28E  BK  65B  U2  66B  NE  69B
1852=TU 24 1031 17895 RUSS RL  B7          0    0    0  45.49N  77.59E  U2  65B  NE  68B
1853=TU 25 1141 17895 RUSS RL  L4          0    0    0  55.48N  21.14E  U2  66B  N0 105C
1854=TU 20 1031 17895 RUSS RL  B7          0    0    0  55.74N  26.70E  U2  66B  NE  66B
1855=TU  6 0111  5985 TB   RL  HC          0    0    0  54.80N  17.54E  NE  66B  U2  68B
1856=TU 12 0031 11885 TI   RL  P4          0    0    0  54.80N  17.54E  U2  68B  NE  66B
1857=TU 24 1201 17750 TI   RL  HC          0    0    0  50.79S 176.08E  U2  66B  NE  79B
1858=TU 24 1101 17760 TI   RL  B7          0    0    0  54.34N  48.11E  U2  66B  NE  68B
1859=TU 19 2215  7245 UKR  RL  L5+L6      453   21   76  55.40N  16.29E  U2  64A  NE  60B  U2  64A
1860=TU 17 0501  7245 UKR  RL  L5+L6        0    0    0   7.46N 113.28E  U2  67C  NE  71B
1861=TU 24 2311  9565 UKR  RL  P2        376  295  147  27.89S  92.62E  FL  38C  PS  32C  BE  39C  AL  32C  LR  48C
1862=TU 22 0510  9625 UKR  RL  G13+G14     0    0    0  48.82N  64.66E  N0  80B  U2  68B
1863=TU  9 2119 11885 UKR  RL  G4B         0    0    0  15.34S  91.24E  FL  38C  BE  36C
1864=U6 24 1540 17780 RUSS VOA TAN 6       0    0    0  55.32N    .45W  LR  45C  PS  41C
1865=U7 20 1838  9770 ???? ???????????     0    0    0  30.77N  46.67E  BE  51C  FL  45C
1866=U7 12 1445 11885 ???? ???????????  4034  628  116  50.23N  19.25E  PS  41C  FL  40C  SS  42C  BE  50C
1867=U7 17 0216  7180 ARM  RL  L2          0    0    0  37.91N  31.75E  PS  45C  FL  47C
1868=U7 19 0244  7180 ARM  RL  L2       1661  257   93  54.10N  16.51W  LR  41C  CA  56C  BE  56C  SS  40C  PS  41C  FL  42C
1869=U7 19 0113  7180 AZ   RL  L2       2269  354  113  51.29N  11.90E  PS  41C  SS  41C  BE  54C  FL  44C  LR  43C  FL  42C
                                                                      SS  41C  BE  51C  KI  36C  CA  48C
1870=U7 18 0153  7180 AZ   RL  L2       3818  520  118  53.78N  20.81E  LR  37C  SS  41C  CA  46C  FL  47C  BE  39C
1871=U7 14 0140  7180 AZ   RL  L2          0    0    0  52.01N  18.80E  SS  40C  FL  39C
1872=U7 15 0445  7180 AZ   RL  L2       2006  343   99  50.77N   9.57W  FL  44C  BE  59C  PS  44C  SS  41C  LR  55C
1873=U7 16 0113  7180 AZ   RL  L2       2504  396  110  52.30N   5.50E  FL  45C  KI  36C  LR  52C  PS  44C  SS  39C  AL  43C
                                                                      BE  50C
1874=U7 25 1801  9505 AZ   RL  L1         97   36  130  50.49N  15.90E  U2 100C  NE  97B  N0 140B  N0 140B
1875=U7  6 1818 11970 BR   RL  P5      11696  661  119  48.08N  17.15E  BE  51C  LR  50C  FL  44C
1876=U7  9 1131  6065 CZEC DW             0    0    0  52.33S 171.51E  NE  96B  U2  97C
1877=U7  6 0811 11855 CZEC RFE G6        145   42  171  53.90N  14.69E  N2 185B  N1 175B  N0 135C  N1 165C
1878=U7  8 0901 11855 CZEC RFE G6          0    0    0  44.99N  16.14E  N1 173B  N2 180C
1879=U7 15 0311  7245 DARI RFE L         779  539  164  15.21S 100.32E  BE  21C  SS  41C  FL  43C
1880=U7  7 1718 11970 EST  RFE P5       3824  687  106  48.87N   8.98E  FL  44C  LR  50C  SS  44C
1881=U7 19 1905  7255 GEOR RL  L4          0    0    0  51.47N   5.44E  U2  97B  SS  41C
1882=U7 15 1911  7255 GEOR RL  L4          0    0    0  49.54N   1.44E  SS  43C  FL  45C
1883=U7 17 1919  7255 GEOR RL  L4          0    0    0  43.37N  25.03E  BE  54C  FL  45C
1884=U7 12 1546 11970 LAT  RFE P5       1321  540  116  52.35N  11.64E  FL  39C  AN  11C  PS  42C  SS  38C  BE  52C
1885=U7 10 1541 11970 LAT  RFE P5       1010  146   65  58.37N  42.52W  LR  45C  DS  35C  BE  38C  PS  44C  GI  29C
1886=U7  7 1605 11970 LITH RFE P5       3509  657  126  44.57N  28.63E  GI  32C  SS  44C  FL  44C  LR  49C  BE  51C
1887=U7  6 0107  5955 RUSS RL  G3A         0    0    0  60.63N  17.73E  N3 197A  N1 155A
1888=U7  7 1011  6105 RUSS RL  L11     *****    2    0  52.24N   5.08E  u2 105C  NE  96B  u2 105C  NE  70B  NE  70B  NE  71B
1889=U7  9 0801  6105 RUSS RL  L11         0    0    0  43.07N  47.44E  N3 145B  NE  91B
1890=U7  6 0731  6105 RUSS RL  L11         0    0    0   0.00N   0.00E  u2  96B  ne  94B  lr  47C
1891=U7  7 0835  6105 RUSS RL  L11         0    0    0   0.00N   0.00E  u2  98B  ne  68B
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1892=U7   9 1301   6105 RUSS RL   L11          0    0    0  51.68N   8.79E  BK  58B  U2  90C
1893=U7   9 0701   6105 RUSS RL   L11        757   43   74  53.30N   6.55E  U2  69B  KI  31C  PS  41C  FL  46C  LR  46C  BE  51C
1894=U7  16 0018   7180 RUSS RL   L2        7610  285   85  56.99N  25.36W  BE  49C  KI  36C  PS  43C
1895=U7  19 0410   7245 RUSS RL   L5+L6      3127  554  104  52.04N   4.13E  FL  43C  SS  40C  BE  53C
1896=U7  16 2317   7255 RUSS RL   HB        3072  561  105  50.61N   4.07E  BE  54C  FL  47C  SS  41C
1897=U7  19 2252   7255 RUSS RL   L4           0    0    0  36.93N  43.71E  FL  42C  AL  38C
1898=U7  15 2235   7255 RUSS RL   L4        2639  451  111  52.86N   8.20E  FL  45C  SS  40C  AL  45C  PS  44C  BE  47C  KI  37C
1899=U7   7 1353  11885 RUSS RL   B4        4041  693  107  52.99N  11.69E  FL  41C  LR  44C  SS  39C
1900=U7  10 1205  11885 RUSS RL   B4        7969  144  124  42.90N  32.51E  LR  46C  U2 100B  BE  50C  FL  38C
1901=U7  12 1555  11885 RUSS RL   HB        1376  560  118  50.88N  13.28E  AN  10C  PS  43C  SS  39C  FL  41C  BE  53C
1902=U7  12 1235  11970 RUSS RL   P5        3422   29  103  51.52N   3.94E  U2 100B  LR  47C  SS  40C
1903=U7  12 2050  11970 RUSS RL   P5        1976  720  117  50.75N  14.59E  FE  26C  PS  43C  SS  41C  FL  41C
1904=U7   9 1338  11970 RUSS RL   P5           0    0    0  54.04N   2.46E  FL  40C  SS  38C
1905=U7  21 1336  17895 RUSS RL   L4       11909  736  118  49.65N  15.75E  LR  47C  FL  42C  PS  42C
1906=U7  18 0240   7245 TB   RL   L5+L6     4898  767  123  47.75N  30.27E  PS  37C  SS  41C  LR  40C  FL  46C
1907=U7  22 0031   9660 TI   RL   HD          83   22  141  50.58N  16.56E  U2  97C  N0 138A  NE  96B  N0 138A
1908=U7  17 1538  15370 TI   RL   HD        3012  126  144  43.27N  30.20E  FL  42C  PS  41C  BE  53C  N0 125B
1909=U7  16 1518  15370 TI   RL   HD       10860  646  117  49.98N  13.50E  BE  51C  FL  43C  PS  45C
1910=U7  15 1457  15370 TI   RL   HD        4026  636  116  49.00N  19.26E  BE  51C  FL  42C  PS  42C  SS  43C
1911=U7  21 1441  17895 TI   RL   B7        1080  106   71  52.76N  45.83W  GI  55C  PS  42C  BE  52C  FL  43C  LR  47C
1912=U7  25 1411  17895 TI   RL   B7        8814  575  105  53.40N    .08W  LR  48C  FL  41C  PS  42C
1913=U7  16 0542   7245 UKR  RL   L5+L6      2666  494  106  49.48N    .37E  BE  57C  LR  53C  SS  43C
1914=U7   7 1705  11885 UKR  RL   P1       13818  772  126  44.38N  26.21E  FL  44C  LR  49C  BE  51C
1915=U7   9 1705  11885 UKR  RL   P1        1364  106  114  48.16N  20.64E  FL  42C  LR  50C  PS  44C  AN   5C  BE  54C  AL  42C
                                                                           U2  98C
1916=U7  11 1701  11885 UKR  RL   P1        1583   36   99  51.86N  10.09E  u2  97B  LR  48C  NE  95B  AL  44C  PS  44C  FL  40C
                                                                           BE  50C
1917=UA   6 0046  11760 ???? ????????????     0    0    0  45.10N 135.13E  DS 320C  FE 310C
1918=UA  14 0840   7220 RUSS RL   L5+L6        0    0    0  48.71N 136.94E  FE 312C  WP 315C
1919=UA  13 0936   7220 RUSS RL   L5+L6        0    0    0  50.34N 138.17E  AN 288C  WP 317C
1920=UA   6 0245  11760 RUSS VOA  TAN 2     1500  465   52  49.66N 134.45E  AN 291C  DS 324C  FE 311C  WP 316C
1921=UA  12 0040  11885 TI   RL   P4           0    0    0  49.59N 136.43E  WP 316C  DS 323C
1922=UA  24 2010   9740 UKR  VOA  PHT12        0    0    0  50.42N 136.85E  WP 317C  AN 289C
1923=UA   6 2243  11885 UKR  RL   G4B          0    0    0  48.80N 130.07E  AN 292C  WP 315C
1924=UA   7 2211  11885 UKR  RL   G4B       1033  371   53  47.88N 135.68E  WP 314C  AN 288C  AN 287C  FE 310C  WP 314C
1925=UA  10 2216  11885 UKR  RL   G4B          0    0    0  20.18N 106.79E  DS 321C  FE 314C
1926=UB   6 0241   6025 RUSS VOA  WOF 2        0    0    0  52.05S 178.27E  U2  93B  NE  90B
1927=UB  19 1803  15215 RUSS RL   G3B          0    0    0  50.78N  24.76E  NE  89B  N0 118C
1928=UB  14 1635  15415 UKR  VOA  TAN 8        0    0    0  54.23N  12.71E  PS  39C  DS  30C
1929=UD  23 1241   9500 ???? ????????????     0    0    0  17.48S  84.17E  DS 315C  AN 294C
1930=UD  24 1850   9550 ???? ????????????     0    0    0   0.00N   0.00E  ds 322C  an 291C  fe 308C
1931=UD  26 1740   9550 ???? ????????????     0    0    0   0.00N   0.00E  an 292C  ds 320C  fe 306C
1932=UD  22 0119   9755 ???? ???????????? 9629  512   44  46.62N 136.68E  AN 285C  DS 320C  FE 311C
1933=UD   7 2018  11755 ???? ????????????14852  846   35  30.78N 119.36E  AN 287C  DS 319C  FE 309C
1934=UD   9 2019  11755 ???? ????????????     0    0    0  45.29N 131.09E  AN 288C  WP 311C
1935=UD  18 1546   7130 RUSS DW           6423  385   50  50.72N 146.68E  AN 288C  FE 306C  DS 320C  gi 143C
1936=UD  13 1558   7130 RUSS DW           1526  543   53  47.31N 134.31E  WP 313C  DS 325C  gi 151C  AN 287C
1937=UD  21 0808   9675 RUSS VOA  PHT 8      664  575  163  45.26N 124.04E  NE  39B  NE  45B  WP 315C  AN 289C  DS 334C
1938=UD  20 1005   9675 RUSS VOA  PHT 8        0    0    0   0.00N   0.00E  an 289C  ps 152C
1939=UD  26 0935   9675 RUSS VOA  PHT 8     1531  847  153  20.15N  90.52E  N0  85B  WP 315C  DS 312C
1940=UD  21 0933   9675 RUSS VOA  PHT 8      711  506  152  43.05N 126.96E  NE  40B  NE  40B  NE  42B  ne 114B  WP 309C  AN 289C
1941=UD  22 1910   9770 RUSS BBC  MASIRA   1538  486   50  46.12N 133.46E  WP 312C  FE 310C  FE 311C  AN 288C
1942=UD   6 2140  11835 RUSS VOA  KAV 2        0    0    0  50.04N 141.92E  AN 285C  WP 317C
1943=UD   9 0237  11925 RUSS VOA  KAV 7        0    0    0  39.60N 114.80E  WP 307C  DS 327C
1944=UM  10 1734  11875 GEOR RL   L7+L8      9010  730  150  10.08N  72.35E  N0 105B  FL  40C  AL  26C
1945=UM   9 1711  11875 GEOR RL   L7+L8        0    0    0   8.04S 106.39E  NE  86B  N0  85B
1946=UM   7 1958  11875 GEOR RL   L7+L8        0    0    0  51.74N  40.73E  N3 150B  N2 134C
1947=UN  11 2331   6105 RUSS RL   HC           0    0    0  55.11N  16.88E  U2  66B  NE  63B
1948=UN   8 0409   6160 RUSS VOA  WOF 1     1707  360   63  64.70N 133.99E  WP 333C  AN 310C  DS 335C
1949=UN  14 0250   7105 RUSS VOA  MUN 2        0    0    0  35.86N  76.88E  N3 113C  N2 103C
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1950=UN 11 0401  6170 UKR  RL  B1          0    0    0  40.32S 158.70E  U2  60B  NE  67B
1951=UQ 21 0311  9650 PASH DW              0    0    0  73.87N 172.58E  AN 328C  DS 341C
1952=UQ 23 1635  9600 RUSS BBC WOOF        0    0    0  11.47N 103.96E  NE  76B  N0  77A
1953=UQ 20 0111  9625 TI   RL  B7        110   63  119  55.71N  37.91E  DS 356C  AN 329C  FE 333C  N2 136B  NE  63B  AN 323C
                                                                        DS   4C  FE 334C  NE  70B
1954=UQ 21 0135  9660 TI   RL  HD '      948  502  139  37.74N  75.20E  AN 324C  FE 335C  NE  79B  FE 335C  WP 346C
1955=UQ 24 1840  9565 UKR  RL  P2          0    0    0  55.65N 148.72E  AN 288C  WP 325C
1956=UQ 22 0311  9625 UKR  RL  G13+G14     0    0    0  63.19N 141.51W  FE 331C  DS 337C
1957=UQ 21 0302  9660 UKR  RL  P4       1032  445  128  47.26N  72.90E  U2  66B  FE 336C  AN 337C
1958=UQ  7 1946 11885 UKR  RL  G4B         0    0    0  16.33N  46.99E  FE  11C  WP 325C
1959=UR 20 0303  9009 RUSS IBA             0    0    0   0.00N   0.00E  ne  64B  lr 147C
1960=US 20 1441 17740 ???? ???????????? 6326  527  117  52.73N  13.78E  FL  39C  BE  50C  LR  44C  AL  42C
1961=US 25 1345 17740 ???? ????????????23641 1114  145  26.89N  59.82E  BE  44C  FL  39C  LR  39C
1962=US 18 0604  7180 CZEC RFE B4         65   33  124  50.86N  28.96E  NE  81B  U2  83A  N0 115B  N2 154A
1963=US  9 0308  5880 RUSS IBA          2808   33   96  51.98N  18.16E  SS  37C  FL  38C  PS  40C  U2  83A
1964=US  6 0315  6090 RUSS VOA MUN 3       0    0    0   0.00N   0.00E  u2  89B  ne  87B
1965=US  9 0441  6090 RUSS VOA MUN 3       0    0    0  49.54N  23.48E  FL  40C  SS  42C
1966=US  8 0333  6090 RUSS VOA MUN 3       0    0    0   0.00N   0.00E  ne  85B  u2  90C
1967=US  8 0204  6170 RUSS RL  P1          0    0    0   0.00N   0.00E  ne  81B  u2  90A
1968=US  7 0144  6170 RUSS RL  P1       1655    2   70  52.25N   5.10E  FL  41C  PS  40C  NE  77B  NE  81B  NE  77B
1969=US 12 0131  6170 RUSS RL  P1          0    0    0  52.63N   9.49E  U2  80B  NE  80B
1970=US  6 0201  6170 RUSS RL  P1         57   19   87  52.57N   8.96E  NE  76B  U2  82A  N0 161B  FL  44C  PS  39C
1971=US 19 0101  7165 RUSS RL  G3          0    0    0   0.00N   0.00E  u2  84B  ne  68B  u2  85B  ne  68B
1972=US 14 2018  7220 RUSS RL  HB          0    0    0   0.00N   0.00E  be  52C  fl  35C  ps  27C
1973=US 15 2016  7220 RUSS RL  HB          0    0    0  38.69N  44.99E  PS  37C  FL  40C
1974=US  6 1557 11770 RUSS RL  HB          0    0    0   0.00N   0.00E  be  43C  fl  41C  ps  41C
1975=US 25 1044 17750 RUSS RL  HC          0    0    0  53.04N  26.11E  N0 108B  N2 159C
1976=US 18 0017  7295 TI   RL  L4      17958  954  143  28.55N  54.45E  BE  46C  PS  40C  FL  42C  LR  40C
1977=US 17 0001  7295 TI   RL  L4        173   45  111  49.30N  37.99E  BK  84A  U2  83B  FL  44C  NE  80B  AN   1C  BE  51C
                                                                        AL  38C  PS  37C  LR  43C  FE   6C  SS  39C  N2 140B
1978=US 25 0212  9625 TI   RL  B7          0    0    0  44.90N  68.63W  LR  44C  BE  35C
1979=US 22 0137  9625 TI   RL  B7          0    0    0  55.54N  18.28E  N0 110C  LR  40C
1980=US 15 1556 15290 TI   RL  B8       3119   76  128  51.55N  29.27E  BE  50C  AL  38C  SS  43C  FL  38C  PS  38C  N0 108B
                                                                        GI  34C
1981=US 14 1615 15290 TI   RL  B8       3308  711  130  48.44N  32.41E  PS  37C  AL  34C  FL  37C  GI  34C  SS  43C
1982=US 18 1611 15290 TI   RL  B8       9867  978  136  39.60N  39.75E  AL  39C  LR  44C  FL  42C
1983=US 23 1334 17750 TI   RL  HC       2602   79  103  51.09N  26.01E  U2  83B  FL  39C  SS  39C  BE  46C
1984=US 24 1342 17750 TI   RL  HC      10160   95  132  49.14N  32.51E  BE  46C  FL  37C  PS  39C  N0 110B
1985=US 24 1414 17750 TI   RL  HC       3065    3  131  58.81N   5.67E  FL  37C  PS  36C  be  51C  N0 100B  N0 118B
1986=US 25 1101 17750 TI   RL  HC          0    0    0  51.49N  35.87E  N0 100C  NE  80B
1987=US 13 0011  7125 UZBE VOA KAV 8       0    0    0   0.00N   0.00E  ne  84B  u2  84C  ne  83B
1988=US 16 0011  7125 UZBE VOA KAV 8     439   61  112  49.72N  35.28E  U2  82A  AN   1C  AN 359C  PS  36C  N0 104C
1989=US 14 0011  7125 UZBE VOA KAV 8     839   64  106  50.76N  31.63E  FL  46C  AL  32C  BE  12C  AN   1C  DS  28C  PS  38C
                                                                        KI  21C  LR  45C  NE  85B  U2  81B  LR  33C  PS  38C
1990=US 15 0001  7125 UZBE VOA KAV 8     816  160  132  39.70N  65.94E  N2 112B  BK  82A  NE  83B
1991=VG  7 1822 11755 ???? ????????????    0    0    0  57.26N  41.22E  N1 110B  N2 125B
1992=VG 24 2301  9435 HEBR IBA             0    0    0  48.64N  52.23E  N0  90C  N2 121C
1993=VG 21 2135  9585 ARAB OA              0    0    0  45.82N  63.21E  N0  85B  N1 102A
1994=VG 25 1304  9605 RUSS BBC MASIRA   1162  250  138  46.72N  73.92E  N1  91B  NE  66B  LR  25C  DS 315C  AL  31C  PS  29C
1995=VG 12 1647 11710 RUSS VOA WOF 9    3530  453   91  76.08N  15.11W  n2 127B  DS  18C  AL  20C  GI  16C
1996=VG  9 1502 11710 RUSS VOA WOF 9     125   47   88  57.43N  20.08E  N0  94B  NE  53B  AN   1C  GI  42C
1997=VG 12 1631 11780 RUSS BBC WOOF      349   48  153  60.54N  35.84E  N3 150B  DS  19C  N2 127B
1998=VG  6 1941 11845 RUSS BBC CYPRUS      0    0    0  29.39N  58.57E  FE 359C  AL  31C
1999=VG 11 2136 11875 RUSS RL  L7+L8    1057  283  105  87.64N  40.02W  DS 359C  FE   6C  AN   4C
2000=VG  6 1815 11935 RUSS RL  P3        941  378  161  81.70N  23.14E  AL   8C  AN   0C  FE  11C  WP 359C
2001=VG 15 1341 15120 RUSS VOA WOF 3       0    0    0  47.88S 172.74E  NE  66B  U2  52A
2002=VG 15 1349 15235 RUSS VOA WOF 2       0    0    0  46.39S 169.57E  NE  66B  U2  55A
2003=VG 16 1301 15280 RUSS VOA WOF10     836    2   72  52.24N   5.08E  NE  86B  BE  41C  LR  32C  NE  86B  NE  86B  NE  58B
                                                                        PS  40C
2004=VG 16 0931 15410 RUSS VOA PHT10     289   26   70  60.38N  30.79E  NE  49B  U2  52A  BK  46A  AN 358C  NE  49B  NE  49B
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2005=VG 21 0831 17740 RUSS VOA PHT12       0    0    0    0.00N    0.00E  ne  51B  bk  57B  u2  52B
2006=VG 24 1231 17855 RUSS VOA KAV 3       0    0    0   49.37S  174.47E  U2  56B  NE  71B
2007=VG 22 2220  9565 UKR  RL  P2        0    0    0   57.73N   33.89E  AL  30C  FE  13C
2008=VI 24 0733 17735 ROMA RFE G13+G14     0    0    0   53.05N    8.41E  U2  75C  NE  67B
2009=VL 23 1808  9505 AZ   RL  L1        0    0    0   34.92N   61.01E  SS  43C  WP 326C
2010=VL  9 0133  6015 PASH VOA KAV 2       0    0    0   43.60S  153.69E  NE  80C  U2  75C
2011=VL 16 0304  7275 PASH DW            179   51  108   53.51N   25.62E  NE  75B  N0 109B  FE 357C  AL  10C  AN 335C
2012=VL 10 0803 11905 PASH DW            575  165  139   45.28N   62.79E  NE  77B  N2 111B  N3 124C  NE  77B
2013=VL  6 0827 11945 PASH DW           1049  193  143   42.34N   68.04E  N0  90C  FL  28C  SS  42C  NE  76B  N1 100B  N2 107B
2014=VL 21 0041  9660 TI   RL  HD        0    0    0   53.02N   30.43E  NE  77B  N0 102C
2015=VL 26 1125 17750 TI   RL  HC        116   39  106   55.45N   21.26E  N0 105B  N0 105B  NE  65B  n0  90B
2016=VL  8 1741 11885 UKR  RL  P6        0    0    0    0.00N    0.00E  be  50C  al  15C  an   7C
2017=VL  7 2211 11885 UKR  RL  G4B      4481  902  154   24.81N   50.56E  AL  38C  FE  11C  GI  21C  KI  42C  PS  40C
2018=VM 20 2005  9770 RUSS BBC MASIRA     0    0    0   53.89N   18.23E  NE  73B  U2  73B
2019=VM 20 1203 17855 RUSS VOA KAV 3      577   92  143   52.34N   49.03E  N2 120B  N1 111B  N0  85C
2020=VN  6 0758  6170 RUSS RL  L2        0    0    0   65.56N   10.56E  AN  10C  DS  22C
2021=VN 16 1240  7220 RUSS RL  L5+L6      0    0    0   17.02S   86.22E  AL  17C  PS  28C
2022=VN 14 0910  7220 RUSS RL  L5+L6      0    0    0   63.08N   28.18E  DS  18C  AN   1C
2023=VR 21 1536  9670 ARM  VOA RHO 2      0    0    0   48.67S  173.37E  NE  69C  U2  55B
2024=VR 14 1503 15485 BUKH IBA           0    0    0   57.60N   31.47E  N0  84B  NE  60B
2025=VR 15 0240  7155 LAT  RFE G2        0    0    0   63.06N   72.55E  AL  10C  DS 359C
2026=VR 15 0340  7155 LITH RFE G2        0    0    0   45.67N   61.73E  FE 357C  AN 337C
2027=VR  6 0740  6105 RUSS RL  L11       0    0    0    0.00N    0.00E  ds  26C  n0 165B
2028=VR 16 0405  7285 RUSS DW            0    0    0   21.75N   35.59E  N0 137A  N3 166A
2029=VR 22 2207  9505 RUSS RL  L1        0    0    0   80.21N   42.55W  DS  11C  FE  15C
2030=VR 24 2312  9505 RUSS RL  L1        0    0    0   54.99N   35.89E  N2 138B  N0  90B
2031=VR 20 2141  9505 RUSS RL  L1       1561   2    0   52.24N    5.08E  NE  72B  NE  94B  NE  94B  FE  22C
2032=VR 26 0109  9505 RUSS RL  G1        0    0    0   62.10N   28.84E  N2 138B  N3 166B
2033=VR 24 2131  9530 RUSS VOA KAV 3      0    0    0    0.00N    0.00E  bk  90B  ne  53B  n3 170C
2034=VR 23 1901  9585 ARAB OA            73   55  113   60.11N   33.94E  N0  73B  N3 155B  NE  52B
2035=VR 19 1341 15290 RUSS RL  B8       5112  784  161    8.15S   75.26E  GI  16C  LR  32C  KI  31C
2036=VR 16 0741 15380 RUSS RL  P6        442   56  122   51.09S  178.02E  U2  56B  NE  78B  NE  78B
2037=VR 24 2331  9625 TI   RL  B7        78   49  108   59.90N   31.11E  N0  73B  N2 139B  FE  15C  AN   4C  NE  53B
2038=VR 24 0101  9625 TI   RL  B7       108   57  157   60.23N   29.91E  N0  74C  N2 138C  N3 167C  N3 165C
2039=VR 22 0131  9625 TI   RL  B7       1661   53   67   59.01N   29.07E  BK  49B  BK  49B  DS  20C
2040=VR 23 0115  9625 TI   RL  B7        0    0    0   56.82N   51.85E  U2  60B  DS  10C
2041=VR 25 2312  9625 TI   RL  B7       155   42  154   61.79N   29.16E  N2 137B  N3 166B  N1 115C
2042=VR 24 0018  9625 TI   RL  B7        0    0    0   62.93N   28.85E  N2 135B  N3 165B
2043=VR  7 0314  6180 UKR  VOA WOF 5      0    0    0    7.31N  114.62E  N0  70C  NE  70B
2044=W4 17 1801 15115 BULG RFE G7       3156   45  129   43.23N   26.32E  NE 114B  BK 114B  BK 114B
2045=W4 15 1711 15115 BULG RFE G7       1096  124   74   53.98S  173.19E  NE 113B  BK 110B  U2 117B  NE 109B
2046=W4 15 1811 15115 BULG RFE G7       1460  153   75   54.23S  171.76E  U2 117B  NE 108B  NE 111B
2047=WA  6 1841  5955 BR   RL  HC       1054   42   86   55.47N   26.39E  NE  68B  NE  68B  U2  65B  BE  45C
2048=WA 14 1531  7210 DARI VOA KAV 9     2098   48   90   55.13N   31.02E  U2  68B  NE  69B  NE  69B
2049=WA 10 0705 11895 HUNG RFE G4        369   89  147   51.97N   50.86E  N0  85B  N2 120B  N3 133B
2050=WA 16 0834 15185 PASH DW           1201  133  118   54.36N   46.08E  N0  84B  AN 352C  FL   9C
2051=WA 12 0432  6115 RUSS RL  G4B       0    0    0   46.08N   72.84E  U2  67A  NE  70B
2052=WA  6 0333  6150 RUSS VOA MUN 4     0    0    0   54.34N   48.11E  NE  68B  U2  66B
2053=WA 18 0131  7190 RUSS RL  G2B       0    0    0   46.37S  164.11E  U2  68C  NE  75B
2054=WA 20 1001  9675 RUSS VOA PHT 8      0    0    0   42.68N   65.91E  U2  75C  N2 110B
2055=WD 12 1331 11895 HUNG RFE G4        162   53  114   50.08N   35.47E  N2 143B  NE  79B  AL  37C  an  30C  U2  83A
2056=WD  7 1901  6070 RUSS BBC CYPRUS    140   41  102   53.74N   22.96E  NE  73B  N0 110B  U2  76B
2057=WD 17 2231  7130 RUSS DW            0    0    0    0.00N    0.00E  ne  80B  u2  86B
2058=WD 14 2201  7130 RUSS DW            0    0    0   54.41N   21.51E  N0 110B  NE  71B
2059=WD 13 1741  7155 RUSS DW            0    0    0    0.00N    0.00E  ne  75B  u2  89C
2060=WD 14 2001  7230 ARAB OA            0    0    0   52.70N    8.80E  U2  79B  NE  77B
2061=WD 15 2301  7280 RUSS VOA MUN 2      0    0    0   54.98N   24.77E  N0 102A  NE  69B
2062=WD 21 2131  9585 ARAB OA            0    0    0   52.38N    6.57E  U2  82C  NE  81B
2063=WD 23 1640  9600 RUSS BBC WOOF      0    0    0   78.10N   35.75W  AN  19C  FE  18C
2064=WD 11 1611 11770 RUSS RL  B4       3440  729  131   47.31N   32.65E  SS  42C  AL  37C  BE  48C  GI  31C
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2065=WD  6 1731 11780 RUSS BBC WOOF        0   0   0  41.45S 155.04E  BK  79A  NE  74B
2066=WD 10 1635 11780 RUSS BBC WOOF     2785 167 114  48.40N  40.17E  U2  82B  AL  32C  FL  38C
2067=WD 15 0720 15130 RUSS RL  G3A         0   0   0  51.92N  32.90E  NE  80B  N2 147C
2068=WD 22 1205 17875 RUSS DW            121   3  68  52.34N   5.46E  NE  68B  U2  82B  NE  68B
2069=WG  9 2331  6150 POLI VOA WOF 1       0   0   0  45.74N  40.98E  BE  44C  AN 352C
2070=WG 20 0940  9705 POLI RFE B2       1945 237 150  42.67N  65.77E  N0  87C  N2 108C  N2 111B
2071=WG 24 0701  9705 POLI RFE G1B         0   0   0  50.29N  51.26E  N1 110B  N0  88B
2072=WI 10 2011 11960 ???? ???????????? 2587 513 114  72.62N  10.54W  GI  22C  FE  21C  DS  21C
2073=WI 18 0201  7180 ARM  RL  L2          0   0   0  45.49N  77.59E  U2  65B  NE  68B
2074=WI 10 1543 11875 AZ   RL  L7+L8     5634 651 146  18.37S  80.57E  f1  33C  LR  50C  BE  49C  PS  46C  AL  31C
2075=WI  7 1501 11700 BUKH IBA             0   0   0  50.59S 175.66E  U2  65C  NE  78B
2076=WI 14 1506 15485 BUKH IBA           409  88 147  44.29N  46.15E  NE  91B  N2 138C  BE  36C  KI  26C  PS  30C  FL  30C
                                                                      AL  30C  GI  26C  N1 123A
2077=WI  9 1512 11700 GEOR IBA          1093 112 113  55.99N  32.95E  AL  29C  BE  45C  AN 357C  N0  89C
2078=WI  6 2103  6070 RUSS BBC CYPRUS    119   2  59  52.33N   5.32E  U2  69C  NE  57B  NE  67B  NE  57B
2079=WI  7 0132  6115 RUSS RL  B1          0   0   0  54.87N  30.99E  NE  70B  N0  95C
2080=WI 13 0411  7105 RUSS VOA MUN 2     113  20  82  52.59N  12.17E  U2  75B  NE  84B  BK  63B  NE  84B  NE  84B
2081=WI 17 0033  7220 RUSS RL  HA          0   0   0  54.07N  43.66E  U2  68C  NE  70B
2082=WI 19 2301  7220 RUSS RL  HA          0   0   0  45.78N  75.24E  U2  66B  NE  69B
2083=WI 15 1605  7255 RUSS BBC CYPRUS      0   0   0  55.49N  40.37E  NE  67B  N0  85B
2084=WI 18 2301  7265 RUSS VOA KAV 5       0   0   0   9.13N 114.49E  U2  65B  NE  69B
2085=WI 20 2311  9505 RUSS RL  L1          0   0   0  55.13N  31.03E  NE  69B  U2  68B
2086=WI 20 0746  9520 RUSS RL  HC          0   0   0  56.30N  33.97E  N3 159B  N1 124B
2087=WI 25 1302  9605 RUSS BBC MASIRA      0   0   0   0.00N   0.00E  n0  86B  n2 127B  n3 156B
2088=WI 21 0201  9750 RUSS RL  L3          0   0   0  55.13N  31.03E  U2  68B  NE  69B
2089=WI 10 1913 11700 RUSS IBA             0   0   0  57.00N  29.35E  N0  88A  N2 148B
2090=WI  6 1205 11705 RUSS VOA KAV 8       0   0   0  54.21N  45.89E  U2  67B  NE  69C
2091=WI 11 1953 11770 RUSS RL  B3        886 285  96  82.22N  55.48W  AN  16C  DS  19C  FE   6C
2092=WI  8 1810 11845 RUSS BBC CYPRUS      0   0   0  43.77N  32.23E  SS  46C  FE  18C
2093=WI  7 1331 11865 RUSS VOA WOF 4       0   0   0  40.21N  70.91E  NE  78B  N0  85C
2094=WI 12 0201 11915 RUSS RL  P6          0   0   0  33.24S 143.52E  U2  69B  NE  74B
2095=WI  7 0201 11915 RUSS RL  P6        882 165  43  60.80N  12.08E  U2  32D  ne  88B  LR  35C  SS  33C
2096=WI 10 2014 11925 RUSS RL  B2          0   0   0  55.04N  35.69E  NE  69B  N0  90B
2097=WI 10 2011 11935 RUSS RL  P3       1342 104 110  49.49N  35.63E  GI  22C  DS  19C  FE  20C  NE  86B
2098=WI 10 1941 11935 RUSS RL  P3          0   0   0  56.87N  41.93E  GI  21C  NE  63B
2099=WI 10 1746 11935 RUSS RL  P3        943   2  69  58.82N   5.69E  AL  24C  FL  34C  GI  26C  LR  48C  N0  95C  N0  80A
2100=WI 10 1945 11960 RUSS IBA          2399 489 109  73.51N  15.39W  GI  21C  FE  21C  DS  21C
2101=WI 11 2125 11970 RUSS RL  P5          0   0   0  84.86N  23.75E  AN   1C  FE   4C
2102=WI 13 1235 15120 RUSS VOA WOF 3       0   0   0  58.06N  30.51E  NE  58B  BE  38C
2103=WI 19 1231 15235 RUSS VOA WOF 2    1028  68  82  55.35N  19.48E  U2  66B  AN   7C  SS  41C  FL  32C
2104=WI 14 1305 15270 RUSS BBC CYPRUS     43   8  57  52.64N   5.92E  NE  51B  U2  78A  SS  30C  BE  35C  FL  28C  PS  27C
                                                                      LR  33C
2105=WI 13 1334 15280 RUSS VOA WOF10       0   0   0  56.17N  19.27E  NE  59B  U2  62B
2106=WI 14 0734 15340 RUSS RL  L3          0   0   0  54.38N  28.45E  NE  72B  AN   1C
2107=WI 16 0731 15340 RUSS RL  L3        186  35  93  55.67N  30.94E  NE  70B  N0  90B  AN   0C  NE  71B  NE  62B  NE  67B
2108=WI 17 0804 15340 RUSS RL  L3          0   0   0  53.80N  19.25E  NE  74B  AN   7C
2109=WI 18 0735 15340 RUSS RL  L3          0   0   0  51.17N  37.38E  AL  33C  AN 355C
2110=WI 15 1232 15340 RUSS RL  L3        331  62 101  56.79N  35.85E  N0  76B  NE  70B  BE  40C  FL  33C  LR  37C  SS  38C
2111=WI 15 1041 15380 RUSS RL  P6          0   0   0  54.29N  41.97E  U2  68B  N0  87B
2112=WI 16 1042 15380 RUSS RL  P6       1171   3  70  52.26N   5.20E  NE  66B  NE  82B  AN   0C
2113=WI 16 1041 15445 RUSS RL  P4       1157  53  90  54.87N  30.00E  AN   0C  NE  70B  NE  70B
2114=WI 19 1102 15445 RUSS RL  P4          0   0   0  55.59N  28.30E  N0  95B  NE  67B
2115=WI 16 0941 15445 RUSS RL  P4       7581  92 102  54.07N  43.64E  U2  68C  NE  70B  NE  70B
2116=WI 14 1401 15485 RUSS IBA            82  40 135  55.52N  36.41E  N0  88B  N2 140B  U2  66B  N1 118B  N3 154B  FL  30C
                                                                      NE  69B  KI  26C
2117=WI 16 1401 15485 RUSS IBA             0   0   0  40.78S 166.09E  BK  63B  NE  56B
2118=WI 21 1211 17855 RUSS VOA KAV 3       0   0   0  54.75N  41.74E  N0  86B  U2  67B
2119=WI 20 1201 17855 RUSS VOA KAV 3     796  38  80  54.98N  18.76E  U2  67B  NE  66B  U2  68B
2120=WI 21 1741 17865 RUSS RL  P2        150  24 155  59.73N  34.80E  N2 130A  N3 154A  N1 120C
2121=WI 24 1031 17895 RUSS RL  B7          0   0   0  45.49N  77.59E  U2  65B  NE  68B
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2122=WI 11 2340 11970 TI   RL  P5          0    0    0  26.12N  50.98E  FE   6C  DS  20C
2123=WI 25 1101 17750 TI   RL  HC          0    0    0   0.00N   0.00E  u2  66B  n0  90B  ne  80B
2124=WI 21 0302  9660 UKR  RL  P4        153   33   95  54.61N  26.61E  U2  67B  N0 101B  NE  72B  NE  72B  NE  72B
2125=WI 21 0614  9660 UKR  RL  P4          0    0    0  60.05N  34.49E  PS  27C  N2 131B
2126=WL 16 1510  7170 RUSS VOA KAV 5       0    0    0  55.75N 144.98W  DS 325C  FE 305C
2127=WL 12 2147 11835 RUSS VOA KAV 2       0    0    0   0.00N   0.00E  ds 317C  fe 308C  lr 146C
2128=WL 12 1611  6160 UKR  VOA KAV 3       0    0    0  19.51N 105.17E  DS 322C  FE 315C
2129=WM 18 0001  7200 CZEC RFE G2B       662   89  111  53.51N  45.40E  N0  85B  NE  69B  U2  73B
2130=WM 19 2131  7200 CZEC RFE G2B      1056  199  135  39.62N  72.31E  N2 105B  BK  76B  U2  75A
2131=WM 18 2241  7200 CZEC RFE G2B      1806  197  125  43.40N  63.39E  U2  76A  BE  13C  FE   4C  an  29C
2132=WM 17 2253  7200 CZEC RFE G2B         0    0    0  37.58N  73.91E  N0  85B  N2 105C
2133=WM 14 2311  7200 CZEC RFE G2B       862  180  132  47.03N  63.56E  NE  72B  N1 100B  U2  74B
2134=WM 14 2211  7200 CZEC RFE G2B       490  146  131  49.91N  60.11E  NE  72B  NE  71B  N2 110B
2135=WM 18 1931  7200 CZEC RFE G2B       600   89  113  52.73N  42.99E  U2  70C  N0  90B  NE  74B
2136=WM 15 2122  7200 CZEC RFE G2B       726  162  131  49.03N  57.50E  N0  82B  N2 115C  U2  75B
2137=WM 20 0001  9595 CZEC RFE G2A         0    0    0   0.00N   0.00E  u2  75A  n3 120B  lr 168C  al 140C  be  49C  ne  69B
                                                                        n1  81B
2138=WM 21 0011  9595 CZEC RFE G2A         0    0    0  36.76N  75.37E  U2  75A  N2 104B
2139=WM 14 0631 15215 CZEC RFE G3B       535  128  147  40.48N  69.93E  U2  76A  N1 100B  N3 118A  NE  75B
2140=WM 15 0815 15215 CZEC RFE G3B       167   16   75  53.06N   8.66E  U2  75A  n0  85B  NE  67B  NE  69B
2141=WM 20 2118  9625 EST  RFE G8          0    0    0  53.51N  19.49E  NE  76B  U2  75B
2142=WM 13 0101  7145 RUSS RL  B8        550  137  133  46.73N  59.01E  N0  85B  N2 115B  NE  78B  NE  78B
2143=WM 14 0011  7145 RUSS RL  B8          0    0    0  43.74N  63.85E  N0  87B  U2  75B
2144=WM 14 2001  7230 ARAB OA           1868  175  125  45.77N  60.78E  N0  87B  NE  77B  NE  78B  n0 110B
2145=WM 26 0535  9520 RUSS RL  HC        607   93  145  53.70N  58.11E  N0  78C  N2 109B  N3 121B  N1  95C
2146=WM 20 0441  9520 RUSS RL  B7          0    0    0   0.00N   0.00E  u2  88C  n2 102B  ne  69B
2147=WM 25 0541  9520 RUSS RL  HC          0    0    0  41.43N  68.16E  N1 101B  U2  75A
2148=WM 21 0102  9555 RUSS RL  G1B         0    0    0  53.21N  12.55E  U2  76A  NE  75B
2149=WM 20 0314  9555 RUSS RL  G1B         0    0    0  54.65N  37.08E  N0  90B  NE  70B
2150=WM 24 0001  9750 RUSS RL  L3          0    0    0  43.66N  62.39E  U2  76C  N1 105C
2151=WM 20 0511  9660 UKR  RL  P4          0    0    0  41.40N  68.21E  U2  75C  N0  86B
2152=WM 26 0505  9660 UKR  RL  P4       1513  326  149  31.98N  75.30E  NE  86B  N3 118B  N2 101C  U2  75C
2153=WQ 21 0752  9720 ???? ???????????    0    0    0  50.60N  23.01E  N0 122B  N3 182B
2154=WQ  8 1331  5985 HUNG RFE B9B        92   31  108  50.84N  15.72E  BK  94B  U2  90B  NE  94B  N0 140B
2155=WQ 11 0609  5985 HUNG RFE B9B         0    0    0  47.93N  22.15E  N2 169B  N0 131B
2156=WQ  8 1504  5985 HUNG RFE B9B         0    0    0  52.27S 178.71E  U2 108C  NE  93B
2157=WQ  9 1535  5985 HUNG RFE B9B         0    0    0  52.02N   7.61E  NE  97B  N0 170C
2158=WQ  8 0701  5985 HUNG RFE B9B       123   24  110  49.54N  20.61E  U2  98B  N0 129B  BK  95A  NE  94B  U2  94B
2159=WQ 11 0801  5985 HUNG RFE B9B       661   37  104  50.35N  19.10E  U2  92B  BK  92B  NE  94B
2160=WQ 10 0731  5985 HUNG RFE B9B         0    0    0   0.00N   0.00E  u2  97B  n2 168B  ne  94B
2161=WQ 12 1401  5985 HUNG RFE B9B       194   42  109  49.51N  20.77E  N3 185C  BK  95B  NE  94C  U2  95B
2162=WQ 16 0711  7115 HUNG RFE B9A         0    0    0  49.04N  21.37E  U2  94B  N0 130B
2163=WQ 13 0742  7115 HUNG RFE B9A      8029  206   98  51.86S 167.35E  U2  94B  NE  95B  NE  95B
2164=WQ 17 0741  7115 HUNG RFE B9A         0    0    0  15.39N  70.23E  U2  96A  FL  38C
2165=WQ 18 0711  7115 HUNG RFE B9A         0    0    0  48.88N  22.01E  U2  94A  N0 129B
2166=WQ 17 1201  7115 HUNG RFE B9A         0    0    0  49.08N  25.15E  BK  93B  NE  96B
2167=WQ 20 0801  9725 HUNG RFE B5         56   19  107  49.86N  19.21E  BK  95A  BK  95A  N2 174A  NE  94B  U2  95B  PS  41C
                                                                        n0 122A
2168=WQ 20 0941  9725 HUNG RFE B5          0    0    0  47.87N  24.66E  U2  95B  N0 126A
2169=WQ 21 0743  9725 HUNG RFE B5        116   43  122  49.27N  23.91E  U2  94B  NE  95B  N0 122B  N3 182B
2170=WQ 21 1001  9725 HUNG RFE B5        296   20  103  50.52N  17.13E  BK  92A  NE  96B  NE  96B  U2  95B  NE  96B
2171=WQ 21 1241  9725 HUNG RFE B5       1089   77   89  52.37S 175.50E  NE  96B  NE  94B  NE  95B  NE  96B  NE  94C  U2  99B
2172=WQ 24 0931  9725 HUNG RFE B5        115   32  133  48.33N  24.94E  U2  99B  FL  43C  NE  98B  N0 123A  N3 183B
2173=WQ 25 0831  9725 HUNG RFE B5          0    0    0   0.00N   0.00E  bk  94B  ne  96B  u2  98B
2174=WQ 23 1534  9725 HUNG RFE B5          0    0    0  52.02S 173.07E  NE  93B  U2  93A
2175=WQ 21 0901  9725 HUNG RFE B5        199   27  115  48.36N  27.10E  U2  94B  BK  94B  NE  97B  N0 120B  NE  97B  NE  97B
                                                                        NE  95B  NE  96B
2176=WQ 25 0735  9725 HUNG RFE B5       1973  185  136  34.83N  48.99E  NE 104B  U2  95B  N0 110B
2177=WQ  6 0931 11895 HUNG RFE G4        964  102  137  39.06N  45.55E  U2  98B  NE  97B  N0 110A  n2 170B
2178=WQ 11 1403 11895 HUNG RFE G4          0    0    0  10.98N  81.41E  NE  94B  U2  90C
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2179=WQ 18 1601 15235 RUSS VOA WOF 8      265    54   136   45.79N   25.91E   U2 100B  N0 128B  ne  92B  N0 128B
2180=WQ 25 1710 17865 RUSS RL  P2           0     0     0   52.24N   19.17E   LR  43C  BE  48C
2181=WT  9 1610  6085 RUSS BBC WOOF         0     0     0   60.15N  165.72E   AN 287C  WP 336C
2182=XI 18 0401  7190 POLI RFE G2A          0     0     0   46.00N   44.42E   U2  84A  BE  42C
2183=XI 26 1105 17725 RUSS RL  P1+P2        0     0     0   51.49N   35.87E   NE  80B  N0 100C
2184=XN  8 2232  6010 RUSS DW              1781   65    89   53.72N   21.90E   NE  75B  FL  41C  LR  38C
2185=XN 13 0141  7190 RUSS RL  G2B          0     0     0    0.00N    0.00E   u2  86B  ne  85B
2186=XN  8 1801 11845 RUSS BBC CYPRUS       0     0     0   51.25N   22.94E   BK  83A  U2  84A
2187=XN  8 1931 11935 RUSS RL  P3           0     0     0   42.41N   61.00E   BK  82B  NE  82B
2188=XR 17 0310  7410 RUSS IBA              0     0     0   70.93N  174.84W   DS 338C  AN 325C
2189=XR 23 0210  9540 RUSS RL  G4          1740   669   53   57.62N  112.63E   WP 326C  FE 334C  DS 336C  DS 336C  WP 325C
2190=XW  7 0141 11875 AZ   RL  L7+L8         0     0     0   53.70N   26.29W   BE  56C  FL  40C
2191=Z1 12 1911 11810 ???? ????????????? 2891   488   123   45.87N   20.44E   KI  42C  GI  39C  LR  45C  PS  44C  SS  47C  FL  44C
                                                                              AL  44C  BE  55C
2192=Z1 11 1942 11810 ???? ????????????? 5484    97   126   42.54N   31.48E   BK 108B  FL  46C  SS  47C
2193=Z1 18 1511 15120 ???? ????????????? 5214   479   120   50.92N   11.19E   LR  47C  PS  42C  GI  40C  BE  53C  AL  44C
2194=Z1 19 1556 15120 ???? ????????????? 8661   770   140   33.61N   39.15E   BE  53C  LR  50C  GI  35C  AL  42C  PS  44C
2195=Z1 16 0441  7165 BULG RFE G3         1591   631   123   44.52N   18.03E   AN   7C  PS  42C  SS  46C  FL  45C  BE  61C
2196=Z1 13 0412  7165 BULG RFE G3           87    34   135   46.99N   22.24E   NE 105B  U2 107B  NE 105B  N2 168A  N0 135B
2197=Z1 21 0401  9505 EST  RFE G15+G16       0     0     0   53.30N   14.90E   N0 133B  NE  76B
2198=Z1 22 0431  9505 LAT  RFE G15+G16     428    64   133   42.59N   27.82E   BK 113B  N0 130B  ne  93B  U2 107C
2199=Z1 15 1531 15130 LAT  RFE P3          194    27   126   46.15N   21.66E   U2 116B  BK 113B  BK 113B  PS  44C  FL  43C
                                                                              BE  54C  GI  39C  LR  49C  NE 110B  NE 110B  N0 130B
2200=Z1 13 1541 15130 LAT  RFE P3            0     0     0   49.54N   12.12E   FL  43C  GI  40C
2201=Z1 22 0342  9505 LITH RFE G1        12534   712   127   41.39N   25.97E   PS  49C  FL  47C  BE  54C  LR  48C
2202=Z1 24 1656  9555 LITH RFE P4            0     0     0   13.52S   72.53E   LR  55C  AL  39C
2203=Z1 21 1640  9555 LITH RFE P4        10199   469   141   22.06N   51.36E   AL  38C  FL  45C  LR  47C  U2 108B
2204=Z1 13 1354 15130 RUSS RL  P3            0     0     0   45.44N   25.90E   PS  42C  AN   3C
2205=Z3  6 1111  6023 ???? ?????????????    0     0     0   52.63N   12.56E   N0 145B  N1 180B
2206=Z3 15 1820 15175 ???? ?????????????    0     0     0   47.22N   17.11E   BE  54C  FL  44C
2207=Z3 21 1613 17830 ???? ?????????????    0     0     0   49.70N   15.70E   FL  42C  BE  52C
2208=Z3 23 1405 17835 CZEC RFE G3            0     0     0   56.26N    3.47E   BE  48C  CA  45C
2209=ZA 11 1753 11740 RUSS VOA KAV 8         0     0     0   74.28N   14.41E   AN   6C  DS  14C
2210=ZA 15 1541 15115 RUSS RL  G7        1726    72    99   52.27N   27.44E   NE  81B  BE  43C  PS  38C  FL  37C
2211=ZD 16 0227  7180 ARM  RL  L2            0     0     0   81.32N  145.21E   FE 347C  AN 342C
2212=ZD 14 0205  7220 RUSS RL  HA            0     0     0   10.97S   63.75E   FE 350C  DS  18C
2213=ZD 15 0051  7245 RUSS RL  L5+L6      1675   449   154   77.21N   10.26E   FE  10C  DS  15C  AN   7C
2214=ZD 25 2334  9750 RUSS RL  L3            0     0     0   57.06N   55.17E   N2 106B  N3 121B
2215=ZD  9 1741 11770 TB   RL  HC            0     0     0    0.00N    0.00E   an 359C  as 219C  ds  13C
2216=ZD 11 1705 11885 UKR  RL  P1          1236   341   137   83.92N    7.63W   AN   7C  DS  10C  FE   6C
2217=ZM  6 1544 11875 AZ   RL  L7+L8     21419  1135   145   22.39N   61.27E   BE  44C  FL  41C  LR  42C
2218=ZM 12 1550 11875 AZ   RL  L7+L8      4853   497   115   54.38N    6.28E   AL  39C  DS  35C  PS  42C  BE  51C
2219=ZM 10 1558 11875 AZ   RL  L7+L8         0     0     0   35.02N   43.83E   AL  39C  BE  50C
2220=ZM 11 1517 11845 DARI VOA KAV 2     16594   770   133   44.15N   37.77E   FL  39C  LR  43C  BE  47C  PS  36C
2221=ZM  7 1518 11845 DARI VOA KAV 2      4623   404   106   55.05N    1.49W   AL  46C  BE  50C  FL  41C  LR  45C
2222=ZM 12 1452 11845 PASH VOA KAV 2      4196   679   129   46.70N   34.60E   BE  45C  SS  43C  PS  38C  AL  38C  FL  39C
2223=ZM  8 1431 11845 PASH VOA KAV 2       207    34   108   50.96N   30.91E   BK  80B  U2  83A  NE  81B  N0 106B
2224=ZM 19 1835  7120 RUSS BBC WOOF        142    33   107   51.72N   23.15E   U2  82A  SS  40C  N0 118B
2225=ZM 15 0011  7145 RUSS RL  B8            0     0     0   55.38N   25.30W   FL  38C  LR  47C
2226=ZM 23 0332  9009 RUSS IBA             2267   325   119   49.58N   61.67E   U2  68B  SS  42C  DS   3C
2227=ZM 21 0335  9009 RUSS IBA             2386   356   133   36.88N   60.28E   PS  42C  NE  89B  BE  47C  DS   4C  LR  20C
2228=ZM 20 2135  9009 RUSS IBA               0     0     0   53.84N   50.04W   BE  46C  PS  40C
2229=ZM 25 0331  9009 RUSS IBA               0     0     0   56.26N   13.47E   N0 118C  FL  36C
2230=ZM 25 0620  9520 RUSS RL  HC            0     0     0   48.79N   38.80E   U2  82B  N2 140C
2231=ZM 22 0814  9520 RUSS RL  HC         1715    53    76   54.09N   14.38E   FL  38C  FL  38C  NE  68B
2232=ZM 20 0713  9520 RUSS RL  HC            0     0     0   58.98N    9.76W   FL  35C  PS  38C
2233=ZM 21 1610  9725 RUSS RL  HB         9418   635   119   56.05N   13.98E   LR  43C  PS  34C  AL  39C
2234=ZM 12 1349 11875 RUSS RL  L7+L8     18960  1129   144   30.29N   56.31E   PS  34C  LR  40C  FL  39C
2235=ZM 11 1411 11875 RUSS RL  L7+L8         0     0     0   59.86N    5.06E   AL  38C  PS  35C
2236=ZM  7 0101 11935 RUSS RL  P3          272    37    51   54.85N    9.62E   U2  60C  NE  44B  FL  32C
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2237=ZM 17 0801 15340 RUSS RL  L3           0    0    0  53.94N  23.88E  N0 108C  NE  74B
2238=ZM 21 0241  9725 TB   RL  P5           0    0    0  57.35N  35.93W  PS  39C  BE  46C
2239=ZM 20 1741  9725 TB   RL  HB        9117 1136  149  21.00N  56.23E  GI  26C  LR  43C  BE  52C
2240=ZM 21 0131  9660 TI   RL  HD          98    3   76  52.28N   5.30E  U2  83A  NE  76B  NE  76B
2241=ZM 21 0611  9660 UKR  RL  P4         814   81  130  46.70N  44.72E  U2  84B  N0 100A  DS   4C  FE  29C
2242=ZT 13 1741  7110 ????  ???????????? 1126  402   55  48.61N 144.80E  DS 316C  FE 307C  WP 316C  AN 282C
2243=ZT 13 1811  7110 ????  ???????????? 1255  476   55  48.16N 141.25E  AN 284C  DS 316C  WP 315C
2244=ZT 14 1712  7110 ????  ????????????    0    0    0  61.47N 176.40W  AN 283C  DS 326C
2245=ZT 14 1944  7110 ????  ????????????    0    0    0  50.77N 148.66E  AN 281C  WP 319C
2246=ZT 15 1042  7210 ????  ????????????    0    0    0   7.88S  96.64E  FE 308C  AN 287C
2247=ZT 14 1011  7210 ????  ???????????? 7991  485   46  48.13N 141.76E  AN 283C  DS 320C  KI 324C
2248=ZT 22 0411  9640 ????  ???????????? 1364  510   54  47.21N 138.38E  AN 284C  DS 323C  WP 313C
2249=ZT 13 1836  7120 RUSS BBC WOOF         0    0    0  50.94N 147.62E  AN 282C  WP 319C
2250=ZT 19 1641  7120 RUSS BBC WOOF         0    0    0  48.97N 140.23E  DS 321C  AN 285C
2251=ZT 14 1935  7120 RUSS BBC WOOF         0    0    0  51.37N 149.77E  AN 281C  WP 320C
2252=ZT 14 1207  7220 RUSS RL  L5+L6     1272  475   55  48.53N 140.80E  AN 284C  DS 321C  WP 315C
2253=ZT 13 1238  7220 RUSS RL  L5+L6    10173  673   40  40.55N 131.67E  AN 284C  DS 320C  KI 320C
2254=ZT 13 1010  7220 RUSS RL  L5+L6        0    0    0  54.80N 152.76E  AN 284C  WP 325C
2255=ZT 13 1410  7220 RUSS RL  L5+L6     1305  433   54  49.23N 139.71E  DS 320C  AN 287C  FE 308C  WP 316C
2256=ZT 16 1410  7220 RUSS RL  L5+L6     4883  291   55  53.98N 154.03E  AN 282C  DS 322C  KI 326C  FE 308C
2257=ZT 19 1035  7220 RUSS RL  L5+L6        0    0    0  18.84N 113.34E  AN 285C  FE 308C
2258=ZT 15 1405  7220 RUSS RL  L5+L6     2101  824   75  47.96N 136.02E  KI 326C  DS 323C  WP 314C
2259=ZT 19 1410  7220 RUSS RL  L5+L6     7481  340   54  54.32N 150.42E  DS 323C  AN 285C  KI 324C
2260=ZT 16 1240  7220 RUSS RL  L5+L6        0    0    0  50.68N 147.16E  DS 320C  AN 282C
2261=ZT 18 1105  7220 RUSS RL  L5+L6        0    0    0  30.40N 122.22E  AN 284C  FE 308C
2262=ZT 16 1010  7220 RUSS RL  L5+L6    15883  641   40  40.03N 131.81E  KI 324C  AN 283C  FE 308C
2263=ZT 17 1340  7220 RUSS RL  L5+L6      984  380   57  50.75N 149.68E  DS 321C  AN 280C  WP 319C
2264=ZT 23 2207  9530 RUSS VOA KAV 3        0    0    0  47.80N 138.49E  AN 285C  WP 314C
2265=ZT 26 0441  9650 RUSS DW               0    0    0  46.21N 134.91E  WP 312C  FE 311C
2266=ZT 22 0405  9650 RUSS DW            1011  391   54  45.96N 136.84E  AN 284C  WP 313C  DS 324C  WP 310C  AN 284C
2267=ZT 24 0405  9650 RUSS DW            1306  501   54  46.86N 139.94E  DS 319C  AN 283C  WP 313C
2268=ZT  7 0741 11885 RUSS RL  P5        2274 1289   19  33.09N  91.30E  FL  20C  WP 315C  KI 334C
2269=ZT  8 0611 11885 UKR  RL  P5           0    0    0  51.26N 150.35E  FE 308C  WP 320C
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APPENDIX B: LOCATIONS OF EMITTERS OF HARMFUL INTERFERENCE DETERMINED FROM THE COMPOSITE DATA FILE FOR JANUARY 1986

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 99 HITS   E-file=eeee                    D-file=DDDD

1=1D          52.94N  29.80E    76   41  116deg   15    38 of   42 bearings
              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
             N0105 N2150 u2087 NE068 N2153 AN002 BE040 FL041 LR037 PS034 FL036 BE030 LR030 AL022 DS031
             FL041 PS032 BE019 U2073 FL032 LR037 BE042 NE070 NE069 PS038 BE042 bk090 NE085 U2083 n2134
             N3159 U2085 NE078 N0110 u2066 LR047 WP349 AN356 DS027 NE081 SS040 FL040

2=1G          57.08N  33.61E    52   25   99deg   25    71 of   74 bearings
              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
             AN006 WP343 U2060 NE067 AL012 BE032 ne084 FE001 WP344 ne084 FE006 WP343 AN350 WP343 BK061
             NE063 WP345 WP343 N0078 U2058 WP345 U2064 AN002 PS037 FL038 WP347 N3165 BK057 ne079 N0076
             U2060 N1120 NE070 NE070 U2061 NE068 N2138 NE067 N0090 NE066 AN005 FE012 U2060 FE020 N0075
             U2060 N2140 N3166 NE070 AN009 WP346 U2063 N0088 NE070 NE068 FL037 AN002 N0085 NE069 U2059
             NE060 AN000 NE062 U2059 N0075 N1110 N0073 NE062 NE061 NE062 N0080 SS033 AN004 NE057

3=4F          46.10N  61.39E   167   39  132deg   64   262 of  263 bearings
              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  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
             FL042 SS038 N0088 N2106 N0085 N1102 N0087 n2283 N0088 N2105 N0088 N2105 N1105 NE075 U2077
             N0085 U2075 N0095 BK081 NE078 FL047 LR029 NE064 PS041 BE021 FL042 U2078 NE078 N0085 N2110
             AN340 BK080 NE076 NE076 LR029 U2075 NE081 U2071 N0100 FL040 SS037 U2074 N0093 NE070 NE073
             N0060 U2081 N0058 BE034 KI013 AL030 PS032 SS035 FL025 N0065 LR027 U2080 NE080 N2108 N3121
             N2108 N3121 U2075 NE073 N0085 NE076 NE076 U2079 NE077 BE042 FL042 PS036 U2076 NE076 N0086
             AL024 WP322 NE072 LR035 PS036 AL031 BE036 GI043 WP326 U2078 NE076 N1100 LR018 AL044 NE077
             NE082 FE027 SS046 NE076 U2079 NE079 SS037 FE354 DS356 WP324 NE078 NE077 U2077 N0088 AN336
             WP324 N0124 NE079 U2077 NE079 AN359 BE020 NE077 NE078 N0087 SS035 DS008 FL040 FE016 PS039
             BE035 SS036 AL021 FL028 PS023 LR023 FL028 GI009 LR022 PS023 SS036 N0083 FL037 DS003 GI018
             LR023 PS021 SS037 WP324 KI015 NE078 NE078 N0087 NE076 AL024 PS021 SS042 LR028 GI017 AN336
             BE031 FL024 U2075 U2077 NE076 NE075 NE078 N0087 N2108 U2075 AN336 FL024 WP323 FE003 U2076
             N0083 N0087 N2110 U2076 U2076 AL016 FE356 WP328 DS005 N3125 WP323 LR018 DS004 SS045 FE004
             GI011 AL020 U2079 NE078 NE078 U2081 BK081 NE080 SS025 N0087 N2105 BE028 SS037 BE029 FE357
             WP323 N2108 AL023 LR026 PS020 U2075 NE077 N3130 NE078 N0088 N2105 LR021 FL027 SS038 BE032
             U2078 N0085 BK083 NE076 AN333 U2077 N0088 BK082 NE077 N1092 U2075 NE060 AN332 LR029 U2075
             N0090 NE078 NE079 U2078 NE071 N1100 NE073 U2077 AN333 U2077 N0090 N0090 U2077 NE076 N0090
             U2076 NE077 BK080 NE076 AN332 U2077 AN334 U2077 NE074 NE078 N0088 U2076 U2080 NE074 N0085
             N2113 U2077 BK083 NE071 NE065 N0087 N0089 N2128

4=4N          57.08N  57.85E   153   50  130deg   13    36 of   36 bearings
              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
             U2063 WP343 WP343 U2063 NE068 NE068 N0070 NE064 N2103 PS019 U2058 NE055 NE054 N3118 U2061
             BK056 GI003 AL014 LR023 BE025 FL019 DS002 FE001 AN356 N3114 N1091 NE057 U2065 N0073 N0070
             NE059 N0066 N2105 N1090 N3117 N0070

5=7K          47.57N  61.10E   124   29  128deg   95   354 of  356 bearings
              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  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  465.00  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
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 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
U2071 NE074 N0095 SS058 AL006 DS016 n2281 N0088 N0087 N2114 N1100 U2075 N3118 N0085 NE081
NE065 U2076 U2073 NE077 N0083 U2076 N0085 N0090 N0085 U2075 U2072 N0080 NE069 NE075 NE076
N0110 U2077 NE075 N0088 U2077 NE075 N1100 NE073 NE074 NE069 U2073 N0083 NE065 AN003 FE008
NE068 NE065 FL042 SS035 U2074 N0083 N0083 U2074 FE002 FL041 SS035 AL015 LR031 NE072 AL032
PS038 AN356 BE033 U2072 N0085 N2109 U2073 N0086 N0085 NE068 N2110 N3120 U2072 N2105 N2110
LR040 AL041 AN027 SS034 FL039 NE072 U2073 U2073 N2105 BE038 AL046 PS041 LR033 GI048 AN333
FL023 PS024 BE022 FE009 DS005 LR027 LR030 FL021 AL043 PS028 BE038 BK080 N3103 N0085 NE068
N0085 NE077 NE077 N0090 N2107 U2078 U2071 NE072 U2081 NE081 U2078 N1100 N2106 N1091 NE080
N3120 NE077 U2080 N0090 U2070 NE068 U2071 NE070 NE073 N2107 NE073 NE076 U2076 NE077 N0070
N1100 NE078 NE080 U2078 NE077 U2079 NE076 NE077 NE076 U2078 N1100 NE076 U2076 N0088 NE072
U2075 U2076 NE076 N0096 AN332 DS007 WP330 NE078 N3108 AN061 NE076 WP326 NE077 NE077 NE076
U2079 NE079 N0065 NE078 NE080 NE077 N2107 BK072 WP323 U2080 BE028 NE078 LR032 N1100 U2075
N0040 U2077 N2106 N1099 U2080 WP328 FE355 GI017 NE082 U2078 U2076 NE084 GI004 DS008 N0083
NE077 U2076 N0083 U2076 N0085 NE074 BK073 U2074 NE076 N0088 SS035 FL026 LR025 BE029 U2076
FL042 SS045 BE030 U2077 BK077 N0088 NE076 NE076 N0088 NE078 U2073 NE077 BK078 N2108 FL021
LR027 BE024 FE357 BE024 FE357 U2074 PS025 FL024 LR027 SS039 N0083 PS028 SS043 FL025 U2075
N0083 NE074 FE357 FL056 LR056 PS035 SS033 U2073 NE077 BK080 U2074 BK076 U2078 N0087 NE070
N3120 N2102 U2078 N0079 NE075 N2100 N3118 BK071 NE077 NE075 NE075 U2060 NE066 NE057 U2065
N0088 NE060 n2281 BK056 NE073 N1098 NE062 NE073 PS022 AL030 LR027 BK076 U2076 N0085 U2078
N0087 BK078 BK078 NE075 NE078 N3115 U2076 NE065 U2077 NE073 AN333 U2075 N0080 NE072 AN346
N0085 N2135 N0084 U2074 N0080 N0086 U2075 N0088 BE030 U2075 N0085 N0085 N0083 SS038 FL036
U2077 U2077 NE072 NE078 NE074 U2076 NE071 AN333 NE073 BK081 U2076 NE072 NE072 AN333 BK081
NE075 AN334 U2075 N0083 U2076 N0087 N0083 LR038 N0084 N2110 N0085 U2073 NE074 LR041 AN353
U2075 N0085 N0087 NE074 U2077 NE072 U2075 NE078 U2074 NE057 NE057

6=8L     53.80N  49.72E   135   60  123deg   14    40 of   40 bearings
 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
U2075 NE078 U2069 NE065 NE072 BE036 U2066 BK070 NE068 NE068 N1100 NE069 FE356 FL026 PS029
SS042 U2069 NE064 U2069 DS014 BE038 FE006 WP338 N3135 PS041 DS007 FL042 N2109 BK062 N3130
NE062 AL022 AN033 BE032 FL025 LR033 AL031 LR035 U2068 NE069

7=AG     56.18N  58.11E   198   59  122deg   13    27 of   33 bearings
 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
BK063 U2057 N1091 ne077 N1090 U2059 N0063 NE049 U2060 ne112 AN345 BK061 NE066 NE066 N2104
AN346 NE070 U2059 N0090 ne076 bk073 N0070 ne095 AN349 U2062 NE058 U2060 ne077 N3115 N1095
U2062 NE062 NE065

8=B1     50.48N  18.41E    66   23  121deg   24    75 of   79 bearings
 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
U2096 PS048 LR049 BE052 n2145 N0128 AL042 FL040 U2098 NE091 U2096 BE058 U2088 N0132 U2095
N0133 BE052 FL034 BE052 U2094 U2089 NE094 N0130 NE096 U2098 FL045 PS044 AL041 FL038 LR046
NE066 U2098 AL042 PS043 LR047 N0120 NE087 BE052 FL046 FL043 LR045 BE052 FL042 LR050 PS043
SS042 U2100 ne062 AN013 BE050 AL046 SS042 PS044 FL040 PS045 SS040 FE022 FL038 SS043 FE024
FL040 PS044 LR048 N0133 N0133 NE092 N0132 BE054 FL043 LR053 SS046 N0127 GI035 PS041 SS046
FL043 BE052 n2130 n3148

9=BD     53.68N  28.82E    68   37  104deg   17    49 of   50 bearings
 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
FE026 AL032 DS019 LR031 U2070 n1090 BE039 AL044 FL038 PS036 N2150 N3170 N2150 N3170 FL038
SS043 PS036 N2150 SS034 FL032 LR037 AL030 U2067 FE020 SS044 AN004 N0110 DS026 AN004 FL036
PS042 AN004 DS017 NE064 AL040 KI037 LR039 PS042 NE085 BK066 NE088 PS041 U2073 NE071 U2074
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          BK070 NE071 DS017 AN005 N2149

10=BG      55.77N  36.40E    76   17   96deg   38   120 of  122 bearings
           608.00  609.00  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
          N0085 n3095 NE067 NE068 U2065 NE068 BK065 WP328 DS006 U2075 BK062 U2067 NE068 U2066 NE068
          U2065 NE067 U2066 NE064 BK065 NE061 U2066 NE063 AN357 LR037 DS026 U2067 N0084 NE068 BK061
          SS045 BE049 U2066 BK064 BK064 NE066 LR039 FL038 NE065 U2065 NE069 U2065 NE069 U2066 NE078
          U2070 NE068 NE067 NE076 NE071 NE071 U2066 NE067 NE067 U2067 NE066 U2067 NE069 PS038 U2066
          N2135 NE062 BE035 PS037 N1118 NE062 U2067 NE070 AL035 NE072 n0060 NE065 NE077 NE077 NE071
          AL030 FE024 GI028 NE072 NE063 N0080 FE004 DS030 FL040 N0083 N2130 N0085 U2066 N3147 BE015
          AL038 U2045 N0080 N0087 NE071 N2130 U2065 U2075 NE070 NE070 NE071 NE080 NE080 U2075 U2064
          BK057 NE067 AN003 AL031 N0087 SS038 AN003 GI026 AL013 N0085 U2067 U2065 NE067 NE067 U2065
          U2066 NE067

11=BN      55.45N  14.97E   849   77   69deg    2     4 of    6 bearings
           646.00  647.00
          AL036 PS037 U2063 NE057 ne075 n1090

12=BQ      48.19N  36.72E   565   99  120deg    5     8 of   11 bearings
           648.00  649.00  650.00  651.00  652.00
          U2094 NE090 NE090 BK086 ne082 u2097 NE080 ne083 N0105 U2090 N0105

13=BU      50.87N  34.36E   235   70  116deg    3     9 of    9 bearings
           654.00  655.00  656.00
          NE081 U2083 U2084 N0102 NE084 N2144 N0105 N3160 NE079

14=CB      49.60N  54.35E   265   83  124deg   10    36 of   36 bearings
           658.00  659.00  660.00  661.00  662.00  663.00  664.00  665.00  666.00  667.00
          LR035 AL020 GI035 WP344 DS003 AL009 SS040 AN288 FE358 AN348 KI024 BE044 AL018 PS042 N2121
          U2073 NE070 BK078 NE068 NE068 BK080 NE068 NE068 U2071 NE068 U2073 N2115 N0085 U2072 NE080
          LR045 AN322 BE047 FE002 WP347 DS004

15=CG      58.96N  75.76E   458  116  125deg   11    29 of   30 bearings
           668.00  669.00  670.00  671.00  672.00  673.00  674.00  675.00  676.00  677.00
           678.00
          AL012 FL016 GI011 AN334 FE345 U2059 AN330 N3090 NE042 U2052 NE041 AN329 AL005 AN329 DS359
          FE350 N0063 N1075 n0138 NE063 N0060 U2052 NE051 NE051 NE051 N0060 U2056 NE076 N2075 NE051

16=D3      50.51N  15.77E    70   28  128deg   12    37 of   38 bearings
           680.00  681.00  682.00  683.00  684.00  685.00  686.00  687.00  688.00  689.00
           690.00  691.00
          NE097 N0143 FL042 PS036 BE049 AL047 LR042 SS043 CA048 LR052 FL042 PS037 GI045 n1130 N0140
          U2098 CA044 BE046 BE051 PS041 FL040 U2096 NE099 LR045 N3198 U2102 NE096 NE096 NE093 BE049
          N0140 AL045 LR045 LR045 BE051 U2098 N0138 N0140

17=DA      43.83N  80.02E  1007  634  137deg    6    13 of   15 bearings
           692.00  693.00  694.00  695.00  696.00  697.00
          AN290 DS331 WP328 NE079 AL011 WP318 BE015 U2057 WP328 WP328 AN332 AN332 LR020 al154 lr173

18=DB      48.39N  78.60E   657  394  148deg    9    20 of   21 bearings
           698.00  699.00  700.00  701.00  702.00  703.00  704.00  705.00  706.00
          AN345 be166 AN327 WP320 AN332 WP324 WP322 SS043 N2090 BK060 U2070 AN327 DS350 AN328 FE340
          AN330 FE330 AN319 WP315 FE336 AN330

19=DN      49.55N 130.20E  2158  689   51deg    2     6 of    6 bearings
           707.00  708.00
          AN287 WP314 AN291 DS339 WP312 FE332
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20=DR 54.92N 20.99E 40 12 89deg 37 124 of 126 bearings
709.00 710.00 711.00 712.00 713.00 714.00 715.00 716.00 717.00 718.00
719.00 720.00 721.00 722.00 723.00 724.00 725.00 726.00 727.00 728.00
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
BE035 LR043 BE048 PS038 LR044 LR049 SS041 FL040 PS044 N0105 U2069 BE042 FL037 SS037 LR042
N0105 U2068 BE047 N0100 NE068 U2072 N0105 U2069 N0105 NE064 N0095 NE069 U2068 NE068 n1180
N0108 NE068 NE068 U2070 NE068 NE068 NE068 NE068 NE068 NE068 NE068 U2072 BE041 FL032 LR039
SS042 N0109 U2073 NE070 NE070 N0110 U2066 NE068 NE068 N0110 NE068 n1180 U2068 AN002 SS039
FL036 LR042 U2071 NE069 N0110 SS033 BE039 FL036 U2068 N0090 N0090 NE066 BE037 AN003 PS032
AN003 U2068 LR010 AN005 N0085 NE070 LR044 AN007 FL039 U2069 N0100 NE066 U2068 NE064 NE064
U2068 U2069 U2069 NE069 U2068 NE067 SS046 LR044 U2070 N0124 NE073 BK060 N0110 U2070 N0106
NE066 U2068 BK058 NE064 BK058 NE068 U2068 N0105 U2072 NE070 U2070 BK091 NE067 NE067 U2068
NE071 U2072 LR042 FL038 BE045 SS035

21=DU 58.85N 31.37E 27 16 138deg 40 119 of 127 bearings
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
766.00 767.00 768.00 769.00 770.00 771.00 772.00 773.00 774.00 775.00
776.00 777.00 778.00 779.00 780.00 781.00 782.00 783.00 784.00 785.00
N0085 AN357 N1122 N3165 NE060 N2140 DS019 FE358 N0077 N1122 n0110 N3160 FE012 AN003 N1135
n0110 FE016 DS017 FE020 AN330 N3165 N2140 N2140 ne090 N3165 FE014 AN010 DS018 AL008 DS017
FE015 BE036 AN027 CA039 FE025 AN018 DS015 FE013 N3168 NE057 N0085 NE067 NE057 U2062 AN288
FE357 N2139 n0096 FE357 DS017 N3165 n3140 N0077 N2140 N3165 BE047 FE010 DS016 FE022 AN355
FE017 DS015 FE018 AN011 N0077 N2140 N3165 N2140 N3165 NE067 BE037 AN002 DS025 BE020 PS032
AN009 FL027 N3165 N2136 N2137 N3165 N0074 N3168 AN358 DS009 N0075 N0072 AN353 FE357 AN357
N1118 N2140 N1120 N2136 N3166 N2137 N2139 N0071 N2137 N2140 ne088 N3166 NE068 AL019 NE066
AN358 LR012 FL009 N0080 U2062 N0088 NE070 ne089 N3165 AN356 DS013 NE058 U2055 N0077 N2140
N0077 N2140 N1122 n0141 N3166 FE017 AN336

22=FA 49.58N 134.83E 674 221 52deg 25 59 of 63 bearings
786.00 787.00 788.00 789.00 790.00 791.00 792.00 793.00 794.00 795.00
796.00 797.00 798.00 799.00 800.00 801.00 802.00 803.00 804.00 805.00
806.00 807.00 808.00 809.00 810.00
an325 FE311 an333 AN289 WP343 GI031 FE312 AN292 WP318 DS325 AN293 FE311 AN285 gi152 DS323
AN294 WP313 WP313 DS315 AN293 FL039 AN289 DS322 WP316 DS320 AN287 WP306 WP318 AN292 FE312
DS320 AN296 DS324 AN286 WP313 WP313 AN284 DS320 WP315 DS314 WP313 DS324 WP311 AL032 DS317
FE311 WP312 FE312 DS321 WP313 AN290 DS320 KI317 AN296 DS322 AN289 WP312 gi153 FE308 DS327
DS321 WP317 AN287

23=FG 49.16N 33.10E 198 44 117deg 13 26 of 31 bearings
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
U2086 ne078 n0089 N2147 N0110 ne071 U2090 N0110 N0100 U2086 n0090 U2088 NE086 U2085 ne074
BK083 NE084 BE045 AL034 SS042 LR052 FL038 U2086 N0109 NE090 U2087 U2090 FL039 PS040 U2085
N0110

24=FL 50.33N 35.36E 112 31 123deg 13 34 of 34 bearings
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
N0100 U2084 N2138 NE068 NE085 U2084 N0103 NE085 NE084 N1130 N0105 N0103 BE050 N1130 N3160
N0103 N1135 FL035 GI010 PS037 N0105 NE080 U2085 N0105 NE083 N0105 N1125 U2084 N0108 NE074
U2085 NE083 U2088 N2140

25=FR 21.04N 92.33E 1430 477 145deg 8 19 of 19 bearings
837.00 838.00 839.00 840.00 841.00 842.00 843.00 844.00
AN292 FE308 WP315 WP317 AN292 FE318 NE075 N0083 NE076 U2078 N0085 U2075 N2100 NE075 U2075
N0090 U2076 U2076 NE077

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26=FU          50.94N  55.19E   272   44  115deg   73   232 of  263 bearings
               845.00  846.00  847.00  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  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
              n2095 n0077 U2068 N0094 U2068 NE071 U2071 U2070 WP325 AL012 AN345 FE014 BE051 NE071 AL010
              LR030 NE070 WP323 AL009 SS036 BE027 AN352 FE357 WP324 U2069 WP324 KI028 FE355 N0080 U2069
              BK071 NE075 LR019 n2100 WP324 DS325 WP325 AN354 FE357 U2070 ne093 n2090 BK072 ne093 n0105
              NE072 n0100 AN338 AL010 U2068 NE069 U2066 N0085 FE340 DS350 ds276 AN340 AL010 DS335 AN331
              ne089 n0075 U2069 ne094 n0101 NE078 N0082 DS356 SS041 NE076 U2068 NE077 U2075 NE080 n0075
              u2083 LR035 FE344 FL045 DS003 SS038 AN345 BE018 FE357 DS004 FE345 WP324 AL009 AN343 SS036
              LR045 SS025 NE073 WP315 AN335 DS003 DS003 BE058 AN329 n2100 U2060 U2071 DS358 AN332 AL009
              ps166 be167 NE071 AL009 AN328 DS003 WP318 U2069 WP323 AN337 NE070 NE071 N0090 AN320 U2071
              U2069 an287 n0075 U2070 BK069 FE356 NE079 AL009 LR037 SS036 BE024 U2068 BK069 U2069 N0080
              BK071 n2140 N0100 NE070 FE356 WP325 U2066 N0090 PS039 LR033 DS359 BE040 AN002 LR042 AN310
              AL010 FE357 WP325 AN340 NE067 FE348 AN351 WP325 BK069 U2068 AL009 AL011 NE069 BE034 U2069
              AN354 WP325 KI028 GI029 U2066 NE065 BE043 LR044 SS043 PS039 DS354 WP315 NE071 U2073 NE071
              U2073 DS353 an290 FL037 BE027 LR020 NE071 NE073 U2069 BK070 NE070 NE076 NE070 n0075 KI023
              PS035 BE046 SS042 BE025 LR011 SS038 n2102 U2071 BK073 BE058 GI018 LR022 SS041 U2071 GI014
              WP324 AN304 n2098 N0085 U2073 LR015 SS047 WP321 DS005 an288 DS357 NE069 NE068 WP322 AL011
              DS003 SS045 an289 BE074 FL021 SS032 BE037 FL012 LR020 NE069 N0080 N0086 NE070 n2140 NE074
              AL009 U2070 NE071 NE080 WP324 AN346 NE071 NE070 U2073 NE069 N0084 NE070 NE069 N0080 n0075
              al160 lr175 PS034 WP323 NE075 DS001 LR025 NE078

27=GI          56.47N  36.60E    41   18  118deg   27   101 of  106 bearings
               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
              WP324 FE350 N2135 N3150 FL038 LR027 N0083 N1117 U2062 N2109 AL009 DS004 U2064 BK053 NE066
              SS042 U2066 NE070 NE068 FL037 AL037 LR039 PS042 SS041 BE036 NE068 AN003 SS038 LR035 N0080
              N2135 NE069 LR040 PS036 NE061 N0080 NE062 N2133 AL017 LR036 AN355 BE015 ne090 U2063 NE064
              N0083 N1117 U2066 bk959 BE036 LR038 PS023 SS038 FL036 AL027 AN002 LR022 AL037 AN005 SS042
              FL039 LR037 NE068 NE066 U2063 PS030 AL027 LR038 N0086 BE043 N0088 N0087 SS034 KI038 BE032
              AN358 AL032 LR035 SS035 N0087 BE032 U2064 NE063 N0086 N1120 n2125 N3152 N1118 U2064 n0145
              U2067 n0064 BK060 AN340 BK074 BK074 U2066 NE061 AN003 N0083 N1117 U2060 AL023 U2066 N0105
              NE080

28=GM          28.08N  90.32E  2984 1304   27deg    3     8 of    8 bearings
               946.00  947.00  948.00
              WP312 DS323 DS330 WP317 FE333 AN292 SS041 FE355

29=GR          50.16N 137.14E   425  126   52deg   53   151 of  157 bearings
               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  966.00  967.00  968.00
               969.00  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  987.00  988.00
               989.00  990.00  991.00  992.00  993.00  994.00  995.00  996.00  997.00  998.00
               999.00 1000.00 1001.00
              AN282 DS326 AN288 DS326 FE307 AN289 DS322 AN288 DS326 AN288 DS326 FE309 WP314 AN285 WP314
              AN289 DS321 WP318 AN289 AN290 al156 WP317 DS324 AN291 AN295 FE310 AN290 DS326 FE311 AN292
              FE309 DS321 AN288 KI320 FE309 FE311 AN287 DS326 WP315 FE312 DS321 WP315 FE314 WP314 DS321
              WP318 AN289 WP315 FE310 DS323 AN288 FE310 AN290 WP318 DS322 WP316 AN292 WP330 FE310 AN284
              DS316 AN290 WP319 AN292 DS323 FE311 WP320 DS322 AN292 FE312 AN289 DS324 WP317 DS318 AN292
              DS323 KI321 gi152 DS315 WP340 FE311 WP313 DS320 FE315 AN295 WP315 FE312 DS320 DS316 WP316
              FE333 DS325 AN296 DS322 WP315 AN286 FE310 AN286 WP313 FE309 AN292 AN289 lr160 al155 WP314
              DS322 AN285 WP312 AN291 DS324 WP312 FE310 WP313 FE311 AN288 FE311 AN288 WP313 FE311 AN289
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DS322 WP314 AN285 WP315 FE311 WP315 DS323 FE311 WP313 DS323 AN287 FE310 WP315 AN290 WP313
DS326 an348 AN290 WP315 WP315 AN292 AN290 DS325 FE312 WP315 AN290 DS328 FL041 DS323 KI318
FE313 FE314 DS323 AN287 gi062 AN289 DS323

30=HP     45.35N  37.15E   376  139  127deg    4     5 of    9 bearings
1014.00 1015.00 1016.00 1017.00
U2094 N2141 u2075 ne080 u2105 ne068 BK092 U2092 N3160

31=IG     52.18N 139.59E   505  146   53deg   31    86 of   89 bearings
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 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
AN290 WP311 DS327 AN289 DS327 AN286 AN292 WP318 DS324 WP318 AN285 DS322 WP325 FE311 DS320
ps158 AN288 FE312 AN293 FE311 FE311 WP330 AN292 FE310 AN293 AN290 WP315 DS324 AN286 WP314
AN290 FE313 WP315 AN289 DS322 FE313 AN287 FE309 DS322 WP315 al154 WP314 DS322 AN326 an337
FE314 WP315 DS322 WP314 FE310 DS320 WP315 AN288 AN290 DS320 FE312 WP316 FE312 AN290 WP317
AN289 WP314 FE308 AN291 WP313 BE059 AN288 WP316 DS320 FE311 AN287 AN291 FE311 WP316 AN290
AN290 WP317 AN288 FE312 AN291 FE321 WP313 AN290 DS325 FE312 AN289 WP315 DS320 FE310

32=IN     60.40N  39.76W  1408  206    68deg    3    13 of   13 bearings
1049.00 1050.00 1051.00
FL043 LR037 AL048 LR036 AL027 PS030 GI033 KI021 AL032 BE041 LR035 PS036 FL041

33=KB     51.89N 139.47E   463  129   53deg   45   116 of  125 bearings
1070.00 1071.00 1072.00 1073.00 1074.00 1075.00 1076.00 1077.00 1078.00 1079.00
1080.00 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
AN290 DS322 FE311 WP320 FE314 DS323 AN292 FE311 AN291 DS322 FE308 AN289 AN286 WP309 WP315
AN285 AN272 WP322 AN294 WP318 DS321 WP317 FE312 DS322 KI328 AN293 AN288 FE313 gi147 FE312
AN285 DS323 DS323 FE312 WP325 AN285 gi146 AN295 DS323 WP317 AN288 DS324 WP318 DS325 WP319
FE313 AN289 DS322 AN291 DS322 gi147 WP325 DS323 AN287 AN291 gi147 DS326 AN288 WP327 FE316
DS322 AN289 an005 DS321 WP314 FE312 DS321 WP315 al153 AN291 FE312 WP318 DS321 FE312 AN280
DS325 DS322 AN293 WP317 FE312 AN290 FE312 AN289 WP315 DS323 WP320 AN291 DS323 FE311 AN294
an358 FE312 WP316 AN289 gi147 AN290 FE312 WP317 WP315 PS027 AN294 DS323 AN286 AN292 LR023
WP314 DS340 AN295 WP315 AN288 DS325 AN294 DS323 AN288 FE312 WP315 WP315 KI319 DS322 FE312
WP323 ps155 AN293 AN287 DS322

34=KD     56.20N  34.28E    54   17   98deg   38   122 of  136 bearings
1115.00 1116.00 1117.00 1118.00 1119.00 1120.00 1121.00 1122.00 1123.00 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 1137.00 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
AL039 PS041 FL040 LR042 SS040 KI019 N0085 N2135 AN357 lr141 BE018 U2067 N0095 BE037 FL038
AL010 FL038 BE015 NE069 N0088 BE030 FL045 PS046 SS034 N0085 BK060 ne082 SS035 AL041 LR043
U2067 NE068 U2069 NE064 N0085 n2105 NE068 AN348 U2065 N2143 N0102 U2067 U2068 BK061 bk069
NE068 bk075 ne078 bk076 NE064 AN353 DS310 LR035 PS033 SS038 U2067 N2148 N0087 BK060 NE065
N0084 NE068 U2068 U2066 BE012 LR008 N0087 N0082 NE067 U2064 DS008 BE033 FL032 LR041 FE008
AN002 DS018 fe310 PS037 LR042 FL026 GI029 BK060 BK060 NE069 bk072 NE068 N0086 N0090 NE072
U2065 NE068 bk056 FL040 LR030 PS034 SS033 SS036 BE031 FL030 PS029 bk068 N0083 NE060 N0080
BK058 FL031 SS043 n1105 BK063 NE062 LR031 FL026 NE062 SS032 AL034 LR038 NE066 N0084 NE058
ds281 FL038 U2066 N0088 BK062 NE066 n0080 NE075 NE075 NE075 SS040 U2065 NE070 U2065 U2067
NE069

35=KF     51.93N  57.41E   538  125  139deg    3     6 of    7 bearings
1153.00 1154.00 1155.00
N2110 N1105 U2070 NE069 N0078 ne053 U2068
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36=KM        41.42N  48.55E  1266  146  130deg    4    10 of   13 bearings
            1156.00 1157.00 1158.00 1159.00
            U2088 ne057 ne079 u2096 U2095 N0103 NE093 NE094 NE089 BK094 BE049 FL041 LR042

37=KV        57.77N  27.89E   236   84  111deg    2     6 of    6 bearings
            1168.00 1169.00
            N0085 FE015 PS036 LR040 N2150 N0086

38=L8        46.11N  26.52E  3124   95  120deg    3     8 of    9 bearings
            1178.00 1179.00 1180.00
            BK104 ne098 NE105 LR047 BE052 CA049 SS049 BE053 FL042

39=LG        52.58N  20.85E    54   21  109deg   27    90 of   91 bearings
            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 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
            U2088 AN006 LR047 FL038 N0117 AN005 GI074 AN006 BE045 FL037 LR047 PS038 NE086 NE088 NE086
            BE046 FL035 PS042 U2088 SS044 BE032 PS038 AL043 FL037 N2172 N3179 SS046 BE048 LR046 PS040
            LR044 BE056 SS040 LR046 SS046 SS043 FL038 NE078 U2087 BE048 LR046 SS042 NE083 U2086 NE080
            NE080 U2088 N0120 FL037 N0119 n1095 N0120 NE078 U2088 BK086 N3170 NE087 U2090 NE087 N0120
            NE064 BE043 U2067 FL039 NE068 SS046 BE045 LR030 FL041 NE066 AL041 SS044 PS038 GI033 BE044
            AL041 PS035 AN001 AL041 FL039 BE045 FL037 N0110 U2084 SS039 BE052 N0110 N0124 LR044 SS041
            FL041

40=LK        46.36N  67.07E   276   81  130deg   58   172 of  182 bearings
            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 1242.00 1243.00 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
            BE014 AL010 AN000 DS008 FE006 SS039 AN001 LR023 AL012 DS356 FE355 AL022 BE044 AN293 DS356
            PS036 AN010 DS341 AN319 FE331 DS316 DS338 AN277 WP327 DS002 KI011 WP312 AL014 DS352 LR016
            DS343 WP320 DS335 1r173 AN348 WP326 al160 NE070 AN290 WP324 DS010 NE070 NE069 N0083 NE070
            U2069 U2069 NE071 BE050 AL009 SS036 U2068 SS036 BE053 n1070 BK070 N1090 U2070 AN324 WP327
            N3110 FE006 AN336 AL012 U2070 FE347 DS007 AN339 n0110 NE084 NE070 U2070 NE068 NE077 N2102
            N2100 N3110 LR038 AN328 AL009 AN342 WP328 DS341 BE043 FE350 NE078 NE078 DS010 NE078 NE084
            AN339 DS358 DS008 AN340 U2070 NE070 BK073 BK073 N0082 NE072 LR023 AL012 DS010 U2078 DS349
            WP315 DS348 AL008 U2070 N1090 DS340 AN328 N2100 DS349 FE336 WP327 KI038 NE080 BE046 AL023
            GI022 LR032 AL010 ne180 N1090 n0105 U2068 NE089 LR013 BE027 1r140 be134 U2065 NE093 n0060
            BE042 PS042 FL032 LR044 AL039 SS046 WP328 PS041 LR042 AL040 WP328 N0085 SS036 LR008 U2067
            N0090 LR008 AL008 FL031 PS021 AL033 BE036 LR026 AN345 WP316 NE089 WP328 U2068 WP319 N0100
            LR019 LR035 FL018 U2066 N1090 AN335 WP325 NE063 NE070 U2065 WP325 AN352 NE076 n2059 NE069
            AL009 WP328

41=LM        51.43N  23.61E    79   26  115deg   16    51 of   54 bearings
            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
            LR044 BE047 PS039 FL044 PS039 FL039 AL010 SS038 LR044 BE051 N0120 N2160 U2090 ne072 BE038
            LR046 U2090 ne069 SS039 FL039 LR041 BE049 PS040 NE089 N0106 N0120 NE074 U2091 N0110 N0120
            BK090 FL038 AL042 N0105 BE047 PS038 AL035 N1148 u2096 NE088 NE088 NE088 NE089 N0125 N0120
            NE092 NE079 U2080 NE079 AL038 BE047 NE094 PS038 FL042

42=LR        53.16N 103.03E  1503  374  135deg    5    12 of   13 bearings
            1284.00 1285.00 1286.00 1287.00 1288.00
            BK053 WP319 BK053 U2032 NE042 ne114 U2046 NE051 N3075 U2030 NE052 FE329 DS337

43=LT        46.38N  45.70E  1027  144  125deg    4     7 of    9 bearings
            1289.00 1290.00 1291.00 1292.00
            BK084 N0100 N0100 u2105 ne068 N0100 U2090 U2083 N0095
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44=M3          48.22N  20.63E  5254  130  114deg    3     7 of    8 bearings
              1293.00 1294.00 1295.00
              U2098 n0090 PS036 AL044 LR048 FL041 PS042 KI037

45=MF          53.44N  48.51E   144   40  113deg   26    68 of   70 bearings
              1303.00 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
              U2065 NE082 U2069 NE068 N1116 NE069 U2068 NE068 WP338 n0130 n2162 U2070 N0086 N2105 NE066
              NE066 N3120 N0094 N2106 NE062 NE067 N0086 N2130 U2067 NE068 NE068 NE068 U2070 BK072 NE069
              BK069 NE065 BK069 NE067 U2067 U2066 SS036 N0087 NE067 NE063 N2105 U2069 N0085 U2075 NE068
              U2065 NE077 N0090 NE077 NE071 NE072 BK077 NE068 U2070 NE071 U2072 NE076 NE070 BK072 BK072
              NE068 U2070 U2066 N0088 NE071 N0090 U2068 BK071 N0089 NE071

46=MG          46.90N  34.15E   159   47  123deg    5    11 of   13 bearings
              1329.00 1330.00 1331.00 1332.00 1333.00
              N0115 N1139 BK093 BE050 FL040 PS039 N3163 N0107 ne075 N0113 ne075 U2090 BK093

47=ML          44.76N 130.43E  1155  380   50deg    8    27 of   29 bearings
              1334.00 1335.00 1336.00 1337.00 1338.00 1339.00 1340.00 1341.00
              AN290 FE310 DS321 AN288 FE305 GI029 AN286 DS321 an323 FE308 WP307 DS324 WP309 lr162 AN284
              WP307 FE341 WP306 AN287 FE347 DS320 FE311 WP306 DS321 AN279 WP308 DS320 AN290 WP307

48=MP          52.38N  24.87E    96   36  117deg   12    27 of   31 bearings
              1342.00 1343.00 1344.00 1345.00 1346.00 1347.00 1348.00 1349.00 1350.00 1351.00
              1352.00 1353.00
              FL037 SS042 N0115 N2155 BE044 PS034 DS006 LR047 FL037 LR047 PS044 BE048 FL040 SS044 BE029
              FL039 N0110 N2157 n0103 n1140 NE076 U2090 N0113 NE076 NE076 N0115 NE086 u2090 NE080 u2093
              NE088

49=MU          45.61N  63.92E   163   39  131deg   72   316 of  324 bearings
              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
              1394.00 1395.00 1396.00 1397.00 1398.00 1399.00 1400.00 1401.00 1402.00 1403.00
              1404.00 1405.00 1406.00 1407.00 1408.00 1409.00 1410.00 1411.00 1412.00 1413.00
              1414.00 1415.00 1416.00 1417.00 1418.00 1419.00 1420.00 1421.00 1422.00 1423.00
              1424.00 1425.00
              U2074 N0078 N2108 NE076 N0085 U2075 AN346 FE003 AN356 LR034 DS353 FE357 AL040 SS042 GI078
              N0085 N2108 N0086 FE003 AN344 gi105 SS036 NE066 NE068 DS004 N2108 N1090 N0091 BK075 SS037
              AN298 NE073 PS043 FE354 WP323 LR022 BE041 AL040 U2074 BK075 NE075 PS041 SS038 FE357 BE048
              AN358 NE075 U2076 n0065 NE079 NE075 NE080 PS043 BE042 FL045 SS039 AL045 WP326 FE000 U2078
              BE034 LR032 FL034 N1098 BE035 SS040 N1100 N0090 WP325 AN330 N0075 N2105 U2078 N0071 N2106
              N1091 N3116 NE075 AL011 LR025 U2078 be171 BK076 N0086 N2106 U2073 AN331 LR046 SS042 AL015
              BE048 WP325 N0090 BK081 U2074 NE077 U2076 N0090 N0091 NE071 U2070 BK076 N2105 NE081 N1100
              LR029 PS028 FL025 BE031 U2077 N0087 NE078 U2073 FE002 SS038 AN348 NE078 N0085 NE075 U2075
              AN338 NE067 AN348 WP323 NE075 DS010 AN335 DS010 U2073 U2074 NE068 U2078 U2078 N2110 U2075
              N3120 NE073 U2073 N0076 NE074 U2073 NE074 FE344 DS353 U2074 NE078 N2108 U2073 NE078 AL030
              FL036 LR028 BE032 DS354 PS030 NE078 U2075 N0088 U2077 BK074 NE072 N0091 U2071 N1100 U2073
              N2120 BK074 NE080 N3126 N0085 BK075 N2110 U2072 BE050 NE074 NE076 NE073 U2075 NE079 BE047
              N2102 DS347 AN324 U2076 NE075 FE004 WP325 BK073 NE073 KI044 PS023 BE030 NE070 U2072 FL034
              WP326 NE073 N0087 N2109 NE071 U2075 N2102 N0085 U2077 N0081 BK075 LR046 WP329 KI038 NE076
              NE082 U2075 NE079 U2076 LR041 BE045 NE080 SS046 U2083 NE079 U2082 U2075 N0084 N2106 N0075
              n0035 N2102 PS035 KI010 DS012 SS037 GI012 BE043 PS042 SS035 LR047 U2074 NE075 N0090 U2076
              N0085 N0085 NE077 N2110 BK076 U2075 NE078 U2075 NE076 U2076 BK076 NE078 BE036 SS036 NE075
              U2073 SS032 BE034 FL027 SS038 PS039 U2074 BE030 SS038 AL028 LR024 PS025 NE077 FL037 LR036
              BE038 SS039 PS032 NE070 BE040 BE037 FL024 LR032 SS035 SS036 AN002 FE358 be162 FL047 U2073
              FE344 AN318 N1112 U2074 DS005 NE074 FL049 KI006 AN341 NE075 U2074 AN336 AL008 SS042 FL048
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PS048 KI006 FE358 LR030 N2110 DS001 FE334 NE076 AN334 WP323 FE001 BE057 al128 AN327 lr163
SS031 DS005 U2075 BK078 BK078 U2073 lr140 N2107 NE068

50=MW 48.45N 68.32E 1760 334 134deg 2 4 of 4 bearings
1427.00 1428.00
N1095 N2100 N0080 NE068

51=MX 54.26N 15.55E 1100 51 77deg 2 12 of 12 bearings
1429.00 1430.00
NE068 NE068 AL043 LR045 FL039 NE068 NE068 AL038 BE046 DS027 FL036 PS037

52=NI 59.91N 31.65E 162 40 148deg 10 17 of 21 bearings
1431.00 1432.00 1433.00 1434.00 1435.00 1436.00 1437.00 1438.00 1439.00 1440.00
n0121 N2143 n0114 N2138 n0116 N2133 N1120 N3165 AN001 PS026 N2135 N1120 U2054 ne092 BE026
AN360 AN001 FE018 AL034 FL038 BE050

53=PB 49.46N 26.91E 60 14 118deg 49 147 of 151 bearings
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 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
DS024 FE012 BE049 LR041 PS042 N0118 N0110 U2092 NE082 BE056 PS034 LR034 AL033 NE088 U2093
N0115 U2087 U2083 NE082 NE082 U2090 N0115 ne068 DS024 FE010 FL040 DS026 U2092 N0115 U2092
N0115 NE090 FL043 BE049 LR059 PS037 SS043 NE089 N0120 AL040 PS042 LR044 U2091 NE090 U2092
N0120 FL042 LR033 U2092 NE086 NE086 N0120 U2092 U2089 BE039 DS026 PS038 AL040 FL038 LR044
BE048 U2091 NE084 AL042 FL038 SS035 FL038 FL038 LR047 ne061 PS040 FE001 FL040 AL041 PS046
NE083 N0117 NE092 N0105 FE319 PS038 SS046 WP312 KI033 U2101 ne066 N0120 BK096 U2093 LR042
BE047 FL040 PS040 NE091 U2090 NE093 N0120 NE084 U2088 LR043 BE049 FL036 LR043 BE049 U2100
N0118 N0116 BK096 NE094 NE094 NE088 BK096 FL038 LR042 PS041 NE084 N0117 SS042 FL037 U2098
BK095 NE093 PS039 FL039 NE088 N0115 U2088 N0118 U2091 N0115 LR043 PS040 BE044 n0156 U2091
U2091 N0115 FL031 BE042 N2139 BE052 PS042 LR045 AL043 SS054 NE085 N0115 PS038 PS040 FL041
AL036

54=PF 60.59N 162.44E 703 135 69deg 7 19 of 19 bearings
1500.00 1501.00 1502.00 1503.00 1504.00 1505.00 1506.00
WP333 AN290 AN273 WP317 AN294 DS327 AN295 FE315 AN291 DS328 WP328 FE315 WP328 AN293 FE322
AN293 DS331 WP328 FE318

55=PK 43.78N 99.42E 1222 385 139deg 5 10 of 10 bearings
1507.00 1508.00 1509.00 1510.00 1511.00
N0060 NE058 WP334 DS323 WP327 AN293 NE058 U2056 WP320 AL011

56=R6 46.40N 22.92E 87 30 139deg 21 82 of 85 bearings
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
N0135 N2167 NE102 u2114 N0138 N0138 NE104 KI038 SS044 PS044 PS045 KI038 KI039 PS045 AL045
BE056 PS043 ne068 U2110 FL038 PS046 BE057 AL044 FL045 LR054 N1153 NE108 DS033 BE054 FL043
GI038 AL042 PS045 BE055 PS044 FL045 LR049 SS049 BE055 FL045 GI038 PS044 SS049 DS032 FL045
GI039 PS043 LR048 AL040 BE053 LR048 PS044 AL040 BE054 FL042 U2112 BE052 LR048 PS044 SS050
FL047 LR047 BE054 PS042 AL041 BK108 U2099 BE053 LR051 KI024 DS033 PS041 BE055 FL044 PS044
GI040 FL044 AN355 N0133 N2171 N0135 ne068 N0135 N1155 N3176

57=R9 49.63N 16.94E 76 25 117deg 17 55 of 55 bearings
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
BE053 FL040 AL042 PS044 SS044 BK101 BE053 LR046 DS034 FL041 AL036 PS033 FL040 U2098 N0138
N2173 PS047 LR052 FL044 FL042 AN009 LR052 PS047 U2098 N2175 U2102 NE094 NE093 CA052 BE050
FL042 PS040 BE053 N0135 U2097 NE084 U2098 NE098 U2100 BE056 LR050 U2101 BE055 FL042 LR048

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          FL040 LR047 LR045 BE051 U2105 NE097 U2104 N3192 LR047 AL044

58=RB      54.62N  21.33E    53   31  111deg   14    26 of   28 bearings
          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
          N0110 N2165 N0110 N2165 N0110 N2165 N0110 N2165 BE035 SS042 N0112 N2172 N0119 ne094 NE079
          U2075 U2075 NE074 NE070 BK060 NE066 N0099 N0111 n2143 NE063 U2065 NE068 BE051

59=RD      7.45N  44.95E  6035 1470   29deg    3     5 of    6 bearings
          1575.00 1576.00 1577.00
          WP324 AN339 WP316 an289 WP320 AN348

60=RQ      59.19N  23.33E   565  102   90deg    3     3 of    6 bearings
          1578.00 1579.00 1580.00
          N0080 n2130 U2052 ne076 ne066 LR036

61=RT      57.09N  24.41E    81   55  135deg    4     8 of    8 bearings
          1582.00 1583.00 1584.00 1585.00
          N1145 N2162 N0092 N1143 N0090 N3175 U2063 NE058

62=S5      52.13S 178.99E   531   12   80deg    5    10 of   13 bearings
          1587.00 1588.00 1589.00 1590.00 1591.00
          n0154 n1180 U2100 NE100 NE100 U2097 U2099 NE099 U2100 n0153 U2103 NE095 U2102

63=SB      68.21N  34.14E   185   59  105deg    9    26 of   27 bearings
          1592.00 1593.00 1594.00 1595.00 1596.00 1597.00 1598.00 1599.00 1600.00
          N2090 N3120 N1070 N2095 DS015 DS015 SS044 AL015 DS012 GI018 GI028 LR022 AN002 AL024 DS004
          FE002 ne053 AN000 N1060 AL024 AN360 KI013 BE022 AL012 FL036 DS009 FE021

64=SF      55.90N  59.27E   434  141  129deg    4     6 of    9 bearings
          1601.00 1602.00 1603.00 1604.00
          ne180 N1090 n3188 U2061 N3118 f1057 BE025 U2060 NE059

65=SM      50.98N  38.94E   120   30  115deg   26    59 of   63 bearings
          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 1622.00 1623.00 1624.00
          1625.00 1626.00 1627.00 1628.00 1629.00 1630.00
          N0099 N2125 FL036 DS013 N0095 N2133 N2133 N0095 BK080 NE080 U2079 n0111 N2133 BK080 NE084
          NE083 U2080 NE087 NE079 U2090 DS013 N0100 N0100 U2076 U2079 ne068 ne068 U2083 N0097 NE068
          NE079 U2082 NE083 U2084 NE083 U2080 NE082 U2078 NE079 U2080 N0095 N2140 BK078 NE084 N0100
          NE068 NE068 N0095 bk084 U2080 AN354 NE073 N0095 N0100 NE079 BK076 NE076 U2082 U2088 NE088
          U2084 NE084 NE075

66=SU      45.48N  61.88E  1161  299  136deg    3     5 of    7 bearings
          1632.00 1633.00 1634.00
          NE076 N0089 be072 n0119 N2113 N3122 NE076

67=TK      44.97N  62.18E   199   49  131deg   68   222 of  237 bearings
          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 1694.00
          1695.00 1696.00 1697.00 1698.00 1699.00 1700.00 1701.00 1702.00
          N1103 N3123 N2112 PS020 SS035 N1101 N2113 N3123 N2108 SS037 BE039 N2105 N1100 lr147 be142
          a1131 PS029 WP321 FL034 LR015 U2077 N2100 WP325 N1100 AL008 AN346 DS004 FE344 WP325 SS037
          FL041 WP323 AL009 SS037 DS003 FE348 DS359 FE356 WP322 SS042 U2075 NE076 LR030 SS036 U2077
          NE077 NE080 BK077 U2078 NE077 DS001 FE356 NE093 U2078 U2080 NE079 NE069 NE079 WP329 FL043
          U2082 NE068 NE071 FL031 N0088 NE083 KI025 SS040 FL037 GI029 U2081 NE079 NE076 AN333 WP326
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U2077 NE078 NE078 NE078 AL008 PS047 SS039 DS008 AN325 LR018 FE005 N2108 N3120 N0099 N2109
NE071 N0105 NE071 WP320 N2110 FE008 WP325 U2075 N0096 N2110 DS358 AN318 FE004 lr153 PS041
NE079 NE069 AN284 WP323 N2120 NE080 be138 LR018 PS027 U2075 n0040 WP317 FE355 al155 lr140
be141 U2078 SS037 LR043 BE051 U2078 AN340 FE357 WP320 FE002 WP324 AN332 AN331 FE004 WP323
LR021 U2080 BK080 N2102 NE069 NE069 U2080 NE078 SS034 lr154 U2076 NE070 U2079 NE072 N1100
N2108 ca150 lr154 al153 be142 N0090 U2076 NE075 NE078 N2101 al146 U2077 N0075 NE079 BE041
AN327 WP322 BK080 NE076 NE076 NE079 BK080 NE074 NE064 N1105 N0090 U2078 NE080 BK082 N1105
AN323 SS037 U2078 NE076 N2109 NE089 U2075 SS042 GI020 BE030 LR032 PS030 SS037 FL037 LR032
PS039 BE043 FL028 WP324 LR020 SS040 U2075 NE071 NE071 NE081 AN314 AN338 PS020 U2081 N0085
NE070 N2110 AN333 FE015 FL044 SS035 AN007 AL036 SS048 BE040 N0088 NE068 NE079 U2078 U2080
N0089 BK079 NE076 U2077 NE075 NE078 NE075 BK080 NE075 U2077 NE077 N0110

68=TR 52.37N 28.71E 104 41 134deg 5 9 of 12 bearings
1703.00 1704.00 1705.00 1706.00 1707.00
N1142 n0115 NE076 N0107 N0111 N2155 N3167 NE082 N0106 u2095 LR043 ne093

69=TU 55.55N 35.11E 42 8 98deg 156 427 of 432 bearings
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 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 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
AL028 DS020 FL038 SS043 N0083 n2063 N0080 n2100 BK060 NE068 NE067 U2067 NE069 BE035 PS040
AL039 SS038 U2068 NE071 ne104 U2068 N0083 NE067 U2066 NE066 NE068 U2068 NE058 N0080 NE079
U2070 N0092 NE068 U2068 NE075 U2065 NE071 N0085 U2060 NE070 NE086 N0087 U2067 NE074 U2068
NE070 NE070 NE070 NE068 N0087 U2066 NE068 NE068 N0085 NE077 N0088 NE072 BE039 U2066 ne091
BE033 FL041 U2065 U2068 NE068 N0095 U2066 N0085 NE070 U2067 N0095 NE072 U2067 NE076 N0080
NE068 NE063 NE063 N0080 NE067 U2067 NE067 U2069 N0090 NE071 U2066 ne090 U2065 U2069 N0090
U2065 NE072 NE068 U2066 U2065 NE070 NE067 U2066 NE067 U2060 NE069 SS042 BE045 U2065 NE073
BK068 NE069 U2064 NE069 NE067 N0095 NE068 U2065 NE068 U2068 U2068 NE082 BK062 NE066 BK064
NE070 U2068 N1125 U2066 NE068 NE066 NE073 U2064 U2064 NE069 NE070 N0090 NE068 NE067 N0085
LR039 AL040 U2066 N0090 NE071 NE069 N0085 U2066 NE070 N0090 N0090 N0090 U2065 BK060 NE072
U2080 N0087 NE068 U2064 N0087 N0087 U2065 BK060 NE070 N0087 N0089 U2067 NE066 NE069 U2066
BK061 NE082 N0083 U2068 U2065 NE069 NE074 NE077 N0100 AL033 BE036 SS044 FL040 PS032 BE040
FL034 SS042 AL033 SS040 BE041 SS039 U2066 NE070 N0086 NE072 U2066 U2067 BK068 BK068 NE064
U2066 BK064 NE068 U2068 NE068 BK074 FL042 DS021 N0085 U2067 NE078 NE068 U2065 N2135 FL032
BE039 SS040 GI036 U2070 FL039 GI031 AL030 BE043 LR045 SS043 FL040 U2070 N0090 BE043 SS037
N0090 N0090 NE065 NE070 U2070 BE039 NE069 NE075 U2067 NE068 U2069 NE077 N0082 NE075 U2067
N0085 U2068 N0086 U2066 N0095 N0090 NE065 U2066 NE066 NE071 NE070 AL028 NE069 U2068 NE069
NE069 NE074 U2070 NE068 U2065 NE065 NE071 U2067 U2070 BK060 NE070 NE064 U2067 U2063 N0083
N2135 N1110 U2060 BE056 FL038 BE050 AL042 NE067 NE057 U2067 NE060 U2068 NE069 NE078 U2066
NE068 NE068 U2070 BK062 FL040 BK068 NE068 U2065 U2066 NE068 NE070 U2066 N0086 NE068 U2060
U2065 N0085 NE068 NE068 NE088 U2067 NE066 NE069 NE067 NE065 NE067 U2065 NE076 NE069 NE070
N0090 U2068 NE065 U2065 NE077 NE068 NE066 NE063 U2067 AL009 LR034 PS028 U2069 NE068 N0086
AN358 NE058 NE058 NE058 U2069 BE046 FL037 LR035 U2067 NE074 NE070 U2067 NE071 NE062 NE067
N0085 U2068 N0090 NE072 U2064 NE062 NE062 NE066 NE066 U2067 U2067 N0087 NE065 NE065 U2066
NE069 N0085 NE065 U2066 U2064 NE065 NE065 NE064 U2068 NE070 NE070 NE070 U2067 NE070 NE070
U2067 NE067 NE067 NE068 U2065 NE067 U2070 NE064 U2067 NE073 U2067 N0085 U2060 AL026 N0083
BK062 N0076 N1120 N3162 U2064 NE064 U2066 NE088 BK066 N0082 U2065 BK065 U2066 NE069 U2065

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NE068 U2066 N0105 U2066 NE066 NE066 U2068 U2068 NE066 U2066 NE079 U2066 NE068 U2064 NE060
U2064 U2067 NE071 FL038 PS032 BE039 AL032 LR048 N0080 U2068 FL038 BE036

70= U7          51.78N  15.36E    35   20  115deg   52   195 of  196 bearings
1865.00 1866.00 1867.00 1868.00 1869.00 1870.00 1871.00 1872.00 1873.00 1874.00
1875.00 1876.00 1877.00 1878.00 1879.00 1880.00 1881.00 1882.00 1883.00 1884.00
1885.00 1886.00 1887.00 1888.00 1889.00 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
BE051 FL045 PS041 FL040 SS042 BE050 PS045 FL047 LR041 CA056 BE056 SS040 PS041 FL042 PS041
SS041 BE054 FL044 LR043 FL042 SS041 BE051 KI036 CA048 LR037 SS041 CA046 FL047 BE039 SS040
FL039 FL044 BE059 PS044 SS041 LR055 FL045 KI036 LR052 PS044 SS039 AL043 BE050 U2100 NE097
N0140 N0140 BE051 LR050 FL044 NE096 U2097 N2185 N1175 N0135 N1165 N1173 N2180 BE021 SS041
FL043 FL044 LR050 SS044 U2097 SS041 SS043 FL045 BE054 FL045 FL039 AN011 PS042 SS038 BE052
LR045 DS035 BE038 PS044 GI029 GI032 SS044 FL044 LR049 BE051 N3197 N1155 U2105 NE096 U2105
NE070 NE070 NE071 n3145 NE091 U2096 NE094 LR047 U2098 NE068 BK058 U2090 U2069 KI031 PS041
FL046 LR046 BE051 BE049 KI036 PS043 FL043 SS040 BE053 BE054 FL047 SS041 FL042 AL038 FL045
SS040 AL045 PS044 BE047 KI037 FL041 LR044 SS039 LR046 U2100 BE050 FL038 AN010 PS043 SS039
FL041 BE053 U2100 LR047 SS040 FE026 PS043 SS041 FL041 FL040 SS038 LR047 FL042 PS042 PS037
SS041 LR040 FL046 U2097 N0138 NE096 N0138 FL042 PS041 BE053 N0125 BE051 FL043 PS045 BE051
FL042 PS042 SS043 GI055 PS042 BE052 FL043 LR047 LR048 FL041 PS042 BE057 LR053 SS043 FL044
LR049 BE051 FL042 LR050 PS044 AN005 BE054 AL042 U2098 U2097 LR048 NE095 AL044 PS044 FL040
BE050

71=UA           49.23N 135.75E   957  346   55deg    9    23 of   23 bearings
1917.00 1918.00 1919.00 1920.00 1921.00 1922.00 1923.00 1924.00 1925.00
DS320 FE310 FE312 WP315 AN288 WP317 AN291 DS324 FE311 WP316 WP316 DS323 WP317 AN289 AN292
WP315 WP314 AN288 AN287 FE310 WP314 DS321 FE314

72=UB           52.04S 178.76E  1564   58   88deg    2     3 of    4 bearings
1926.00 1927.00
U2093 NE090 NE089 n0118

73=UD           41.41N 124.26E   606  345   40deg   15    44 of   48 bearings
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 1942.00 1943.00
DS315 AN294 DS322 AN291 FE308 AN292 DS320 FE306 AN285 DS320 FE311 AN287 DS319 FE309 AN288
WP311 AN288 FE306 DS320 gi143 WP313 DS325 gi151 AN287 NE039 NE045 WP315 AN289 DS334 AN289
ps152 N0085 WP315 DS312 NE040 NE040 NE042 ne114 WP309 AN289 WP312 FE310 FE311 AN288 AN285
WP317 WP307 DS327

74=UM           46.93N  42.41E   461  170  139deg    3     6 of    7 bearings
1944.00 1945.00 1946.00
N0105 FL040 AL026 NE086 n0085 N3150 N2134

75=UN           49.13N  72.21E  1006  300  132deg    4     9 of    9 bearings
1947.00 1948.00 1949.00 1950.00
U2066 NE063 WP333 AN310 DS335 N3113 N2103 U2060 NE067

76=UQ           42.02N  79.24E   716  299  138deg    8    26 of   27 bearings
1951.00 1952.00 1953.00 1954.00 1955.00 1956.00 1957.00 1958.00
AN328 DS341 NE076 N0077 DS356 AN329 FE333 n2136 NE063 AN323 DS004 FE334 NE070 AN324 FE335
NE079 FE335 WP346 AN288 WP325 FE331 DS337 U2066 FE336 AN337 FE011 WP325

77=US           51.51N  27.42E    67   18  106deg   31   120 of  122 bearings
1960.00 1961.00 1962.00 1963.00 1964.00 1965.00 1966.00 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 1988.00 1989.00
1990.00
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FL039 BE050 LR044 AL042 BE044 FL039 LR039 NE081 U2083 N0115 N2154 SS037 FL038 PS040 U2083
U2089 NE087 FL040 SS042 NE085 U2090 NE081 U2090 FL041 PS040 NE077 NE081 NE077 U2080 NE080
NE076 U2082 n0161 FL044 PS039 U2084 NE068 U2085 NE068 BE052 FL035 PS027 PS037 FL040 BE043
FL041 PS041 N0108 N2159 BE046 PS040 FL042 LR040 BK084 U2083 FL044 NE080 AN001 BE051 AL038
PS037 LR043 FE006 SS039 N2140 LR044 BE035 N0110 LR040 BE050 AL038 SS043 FL038 PS038 N0108
GI034 PS037 AL034 FL037 GI034 SS043 AL039 LR044 FL042 U2083 FL039 SS039 BE046 BE046 FL037
PS039 N0110 FL037 PS036 BE051 N0100 N0118 N0100 NE080 NE084 U2084 NE083 U2082 AN001 AN359
PS036 N0104 FL046 AL032 BE012 AN001 DS028 PS038 KI021 LR045 NE085 U2081 LR033 PS038 n2112
BK082 NE083

78=VG    60.21N  37.11E    58   32  106deg   17    48 of   56 bearings
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
N1110 N2125 n0090 N2121 n0085 N1102 n1091 NE066 LR025 DS315 AL031 PS029 N2127 DS018 AL020
GI016 n0094 NE053 AN001 GI042 N3150 DS019 N2127 FE359 AL031 DS359 FE006 AN004 AL008 AN000
FE011 WP359 NE066 U2052 NE066 U2055 ne086 BE041 LR032 ne086 ne086 NE058 PS040 NE049 U2052
BK046 AN358 NE049 NE049 NE051 BK057 U2052 U2056 ne071 AL030 FE013

79=VL    53.83N  25.01E   147   40  101deg    9    27 of   33 bearings
2009.00 2010.00 2011.00 2012.00 2013.00 2014.00 2015.00 2016.00 2017.00
SS043 WP326 NE080 U2075 NE075 N0109 FE357 AL010 AN335 NE077 n2111 n3124 NE077 n0090 FL028
SS042 NE076 n1100 n2107 NE077 N0102 N0105 N0105 NE065 n0090 BE050 AL015 AN007 AL038 FE011
GI021 KI042 PS040

80=VM    51.27N  50.19E   517  157  134deg    2     5 of    5 bearings
2018.00 2019.00
NE073 U2073 N2120 N1111 N0085

81=VN    70.90N  15.64E  1612  762  149deg    3     6 of    6 bearings
2020.00 2021.00 2022.00
AN010 DS022 AL017 PS028 DS018 AN001

82=VR    58.87N  30.96E    39   31  141deg   21    47 of   55 bearings
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
NE069 U2055 N0084 NE060 AL010 DS359 FE357 AN337 DS026 n0165 n0137 N3166 DS011 FE015 N2138
N0090 ne072 ne094 ne094 FE022 N2138 N3166 bk090 NE053 N3170 N0073 N3155 NE052 GI016 LR032
KI031 U2056 ne078 ne078 N0073 N2139 FE015 AN004 NE053 N0074 N2138 N3167 N3165 BK049 BK049
DS020 U2060 DS010 N2137 N3166 N1115 N2135 N3165 N0070 NE070

83=W4    54.17S 172.42E  1541  159   75deg    3    10 of   10 bearings
2044.00 2045.00 2046.00
NE114 BK114 BK114 NE113 BK110 U2117 NE109 U2117 NE108 NE111

84=WA    53.24N  50.95E   228   79  120deg    8    21 of   21 bearings
2047.00 2048.00 2049.00 2050.00 2051.00 2052.00 2053.00 2054.00
NE068 NE068 U2065 BE045 U2068 NE069 NE069 N0085 N2120 N3133 N0084 AN352 FL009 U2067 NE070
NE068 U2066 U2068 NE075 U2075 N2110

85=WD    52.25N   5.09E    72    2   71deg   14    30 of   36 bearings
2055.00 2056.00 2057.00 2058.00 2059.00 2060.00 2061.00 2062.00 2063.00 2064.00
2065.00 2066.00 2067.00 2068.00
n2143 NE079 AL037 AN030 U2083 NE073 n0110 U2076 NE080 U2086 n0110 NE071 NE075 U2089 U2079
NE077 n0102 NE069 U2082 NE081 AN019 FE018 SS042 AL037 BE048 GI031 bk079 NE074 U2082 AL032
FL038 NE080 n2147 NE068 U2082 NE068

86=WG    51.60N  49.08E  1018  183  133deg    3     5 of    7 bearings
2069.00 2070.00 2071.00
BE044 AN352 N0087 n2108 n2111 N1110 N0088
```

87=WI 55.38N 35.19E 41 18 108deg 54 158 of 167 bearings
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
GI022 FE021 DS021 U2065 NE068 FL033 LR050 BE049 PS046 AL031 U2065 NE078 ne091 N2138 BE036
KI026 PS030 FL030 AL030 GI026 N1123 AL029 BE045 AN357 N0089 U2069 NE057 NE067 NE057 NE070
N0095 U2075 ne084 BK063 ne084 NE084 U2068 NE070 U2066 NE069 NE067 N0085 U2065 NE069 NE069
U2068 N3159 N1124 N0086 N2127 N3156 U2068 NE069 N0088 N2148 U2067 NE069 AN016 DS019 FE006
SS046 FE018 NE078 N0085 U2069 NE074 U2032 ne088 LR035 SS033 NE069 N0090 GI022 DS019 FE020
ne086 GI021 NE063 AL024 FL034 GI026 LR048 N0095 n0080 GI021 FE021 DS021 AN001 FE004 NE058
BE038 U2066 AN007 SS041 FL032 ne051 u2078 SS030 BE035 FL028 PS027 LR033 NE059 U2062 NE072
AN001 NE070 N0090 AN000 NE071 NE062 NE067 NE074 AN007 AL033 AN355 N0076 NE070 BE040 FL033
LR037 SS038 U2068 N0087 NE066 NE082 AN000 AN000 NE070 NE070 N0095 NE067 U2068 NE070 NE070
N0088 N2140 U2066 N1118 N3154 FL030 NE069 KI026 BK063 NE056 N0086 U2067 U2067 NE066 U2068
n2130 N3154 N1120 U2065 NE068 FE006 DS020 U2066 N0090 NE080 U2067 N0101 NE072 NE072 NE072
PS027 N2131

88=WL 57.62N 158.09W 3823 244 99deg 3 5 of 7 bearings
2126.00 2127.00 2128.00
DS325 FE305 DS317 FE308 lr146 DS322 fe315

89=WM 44.75N 65.16E 289 69 134deg 25 70 of 76 bearings
2129.00 2130.00 2131.00 2132.00 2133.00 2134.00 2135.00 2136.00 2137.00 2138.00
2139.00 2140.00 2141.00 2142.00 2143.00 2144.00 2145.00 2146.00 2147.00 2148.00
2149.00 2150.00 2151.00 2152.00 2153.00
N0085 NE069 U2073 N2105 BK076 U2075 U2076 BE013 FE004 AN029 N0085 N2105 NE072 N1100 U2074
NE072 NE071 N2110 U2070 N0090 NE074 N0082 N2115 U2075 U2075 N3120 lr168 al140 BE049 NE069
n1081 U2075 N2104 U2076 N1100 N3118 NE075 U2075 N0085 NE067 NE069 NE076 U2075 N0085 N2115
NE078 NE078 N0087 U2075 N0087 NE077 NE078 n0110 N0078 N2109 N3121 N1095 U2088 N2102 NE069
N1101 U2075 U2076 NE075 N0090 NE070 U2076 N1105 U2075 N0086 NE086 N3118 N2101 U2075 n0122
n3182

90=WQ 49.56N 21.78E 43 12 115deg 28 93 of 95 bearings
2153.00 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
N0122 N3182 BK094 U2090 NE094 N0140 N2169 N0131 U2108 NE093 NE097 n0170 U2098 N0129 BK095
NE094 U2094 U2092 BK092 NE094 U2097 N2168 NE094 N3185 BK095 NE094 U2095 U2094 N0130 U2094
NE095 NE095 U2096 FL038 U2094 N0129 BK093 NE096 BK095 BK095 N2174 NE094 U2095 PS041 N0122
U2095 N0126 U2094 NE095 N0122 N3182 BK092 NE096 NE096 U2095 NE096 NE096 NE094 NE095 NE096
NE094 U2099 U2099 FL043 NE098 N0123 N3183 BK094 NE096 U2098 NE093 U2093 U2094 BK094 NE097
N0120 NE097 NE097 NE095 NE096 NE104 U2095 N0110 U2098 NE097 n0110 N2170 NE094 U2090 U2100
N0128 NE092 N0128 LR043 BE048

91=XI 51.49N 35.86E 897 153 111deg 2 3 of 4 bearings
2182.00 2183.00
u2084 BE042 NE080 N0100

92=XN 51.61N 19.90E 457 34 96deg 4 8 of 9 bearings
2184.00 2185.00 2186.00 2187.00
ne075 FL041 LR038 U2086 NE085 BK083 U2084 BK082 NE082

93=XR 62.49N 109.69E 2952 779 46deg 2 7 of 7 bearings
2188.00 2189.00
DS338 AN325 WP326 FE334 DS336 DS336 WP325

```
94=Z1          48.68N  18.50E    89   28  123deg   14    63 of   63 bearings
              2191.00 2192.00 2193.00 2194.00 2195.00 2196.00 2197.00 2198.00 2199.00 2200.00
              2201.00 2202.00 2203.00 2204.00
              KI042 GI039 LR045 PS044 SS047 FL044 AL044 BE055 BK108 FL046 SS047 LR047 PS042 GI040 BE053
              AL044 BE053 LR050 GI035 AL042 PS044 AN007 PS042 SS046 FL045 BE061 NE105 U2107 NE105 N2168
              N0135 N0133 NE076 BK113 N0130 NE093 U2107 U2116 BK113 BK113 NE110 PS044 FL043 BE054 GI039
              LR049 NE110 NE110 N0130 FL043 GI040 PS049 FL047 BE054 LR048 LR055 AL039 AL038 FL045 LR047
              U2108 PS042 AN003

95=Z3          52.48N  12.62E   322   85  162deg    4     8 of    8 bearings
              2205.00 2206.00 2207.00 2208.00
              N0145 N1180 BE054 FL044 FL042 BE052 BE048 CA045

96=ZA          52.30N  27.27E  1695  130   99deg    2     6 of    6 bearings
              2209.00 2210.00
              AN006 DS014 NE081 BE043 PS038 FL037

97=ZD          63.48N  44.68E   581   88  137deg    6    14 of   15 bearings
              2211.00 2212.00 2213.00 2214.00 2215.00 2216.00
              FE347 AN342 FE350 DS018 FE010 DS015 AN007 N2106 N3121 AN359 ss219 DS013 AN007 DS010 FE006

98=ZM          52.94N  11.80E    71   19   85deg   25    72 of   75 bearings
              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
              BE044 FL041 LR042 AL039 DS035 PS042 BE051 AL039 BE050 FL039 LR043 BE047 PS036 AL046 BE050
              FL041 LR045 BE045 SS043 PS038 AL038 FL039 BK080 U2083 NE081 n0106 U2082 SS040 N0118 FL038
              LR047 U2068 SS042 DS003 PS042 NE089 BE047 DS004 LR020 BE046 PS040 N0118 FL036 U2082 n2140
              FL038 FL038 NE068 FL035 PS038 LR043 PS034 AL039 PS034 LR040 FL039 AL038 PS035 U2060 NE044
              FL032 N0108 NE074 PS039 BE046 GI026 LR043 BE052 U2083 NE076 NE076 U2084 n0100 DS004 FE029

99=ZT          49.26N 142.73E   505  162   53deg   28    76 of   76 bearings
              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
              DS316 FE307 WP316 AN282 AN284 DS316 WP315 AN283 DS326 AN281 WP319 FE308 AN287 AN283 DS320
              KI324 AN284 DS323 WP313 AN282 WP319 DS321 AN285 AN281 WP320 AN284 DS321 WP315 AN284 DS320
              KI320 AN284 WP325 DS320 AN287 FE308 WP316 AN282 DS322 KI326 FE308 AN285 FE308 KI326 DS323
              WP314 DS323 AN285 KI324 DS320 AN282 AN284 FE308 KI324 AN283 FE308 DS321 AN280 WP319 AN285
              WP314 WP312 FE311 AN284 WP313 DS324 WP310 AN284 DS319 AN283 WP313 FL020 WP315 KI334 FE308
              WP320
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APPENDIX C: LOCATIONS OF EMITTERS OF HARMFUL INTERFERENCE DETERMINED FROM PREPROCESSED HISTOGRAM DATA FOR JANUARY 1986

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*******************************************************************************

    1G

Fix=  59 43 15N   30 33  1E  [   40   27  130deg]     3x1000sqm    35nmi 90%
Bearing Utilization    20 used
    AL1 BE1 CA1 FL1 KG1 LR1 N01 N11 N21 NE0 AL1 BE1 CA1 FL1 KG1 LR1 N01 N11
    N21 NE0 SS1 SS1 U20 U20 BL0 BL0

    ALA 29.0  BEA 38.0  CAA 37.0  FLA 32.0  KGA 30.0  LRA 35.0  N0A 75.0
    N1A120.0  N2A140.0  neA 68.0  ALA 29.0  BEA 38.0  CAA 37.0  FLA 32.0
    KGA 30.0  LRA 35.0  N0A 75.0  N1A120.0  N2A140.0  neA 68.0  SSA 38.0
    SSA 38.0  u2A 62.0  u2A 62.0  b1A 55.0  b1A 55.0
*******************************************************************************

    4F

Fix=  41 32 12N   66 50 56E  [  367   87  143deg]   101x1000sqm   283nmi 90%
Bearing Utilization    28 used
    AL1 BE1 BK1 FL1 LR1 N01 N11 N21 N31 NE1 PS1 AL1 BE1 BK1 FL1 LR1 N01 N11
    N21 N31 NE1 PS1 SS1 SS1 U21 U21 DS1 DS1

    ALA 24.0  BEA 33.0  BKA 81.0  FLA 27.0  LRA 28.0  N0A 87.0  N1A102.0
    N2A108.0  N3A121.0  NEA 77.0  PSA 20.0  ALA 24.0  BEA 33.0  BKA 81.0
    FLA 27.0  LRA 28.0  N0A 87.0  N1A102.0  N2A108.0  N3A121.0  NEA 77.0
    PSA 20.0  SSA 36.0  SSA 36.0  U2A 77.0  U2A 77.0  DSA  7.0  DSA  7.0
*******************************************************************************

    7K

Fix=  43 31 33N   66 31 48E  [  330   91  139deg]    94x1000sqm   256nmi 90%
Bearing Utilization    20 used
    AN1 BE1 BK1 LR1 N01 N11 N31 NE1 SS1 U21 AN1 BE1 BK1 LR1 N01 N11 N31 NE1
    SS1 U21

    ANA333.0  BEA 31.0  BKA 78.0  LRA 30.0  N0A 85.0  N1A100.0  N3A120.0
    NEA 75.0  SSA 35.0  U2A 75.0  ANA333.0  BEA 31.0  BKA 78.0  LRA 30.0
    N0A 85.0  N1A100.0  N3A120.0  NEA 75.0  SSA 35.0  U2A 75.0
*******************************************************************************

    IG

Fix=  50  7 56N  136 55 22E  [  493  147   53deg]   227x1000sqm   383nmi 90%
Bearing Utilization    15 used
    WP1 AN1 DS1 FE1 LV1 WP1 AN1 DS1 FE1 LV1 WP1 AN1 DS1 FE1 LV1

    WPA317.0  ANA290.0  DSA322.0  FEA311.0  LVA316.0  WPA317.0  ANA290.0
    DSA322.0  FEA311.0  LVA316.0  WPA317.0  ANA290.0  DSA322.0  FEA311.0
    LVA316.0
*******************************************************************************

    K7

Fix=  43 31 15N   24 23 23E  [  128   27  135deg]    11x1000sqm    99nmi 90%
Bearing Utilization    16 used
    AL1 BE1 BK1 N01 N11 NE1 PS1 U21 AL1 BE1 BK1 N01 N11 NE1 PS1 U21

    ALA 43.0  BEA 54.0  BKA117.0  N0A135.0  N1A158.0  NEA116.0  PSA 46.0
    U2A108.0  ALA 43.0  BEA 54.0  BKA117.0  N0A135.0  N1A158.0  NEA116.0
    PSA 46.0  U2A108.0
```

```
**************************************************************************

    KB

Fix=  48 37  6N  134 47  4E  [  511   163   52deg]   262x1000sqm   399nmi 90%
Bearing Utilization    15 used
    WP1 AN1 DS1 GI1 LV1 WP1 AN1 DS1 GI1 LV1 WP1 AN1 DS1 GI1 LV1

    WPA315.0  ANA289.0  DSA322.0  GIA327.0  LVA316.0  WPA315.0  ANA289.0
    DSA322.0  GIA327.0  LVA316.0  WPA315.0  ANA289.0  DSA322.0  GIA327.0
    LVA316.0
**************************************************************************

    R6

Fix=  42 40 25N   24 35  9E  [  798    63   129deg]   159x1000sqm   612nmi 90%
Bearing Utilization    12 used
    AL1 AN1 CA1 DS1 LR1 U21 AL1 AN1 CA1 DS1 LR1 U21

    ALA 42.0  ANA  4.5  CAA 50.5  DSA 32.0  LRA 49.0  U2A110.0  ALA 42.0
    ANA  4.5  CAA 50.5  DSA 32.0  LRA 49.0  U2A110.0
**************************************************************************

    TK

Fix=  42 28 35N   63 55 10E  [  272    68   132deg]    58x1000sqm   210nmi 90%
Bearing Utilization    34 used
    AL1 AN1 BE1 BK1 BL1 IT1 KR1 LR1 MU1 AL1 AN1 BE1 BK1 BL1 IT1 KR1 LR1 MU1
    N01 N11 N21 NE1 PS1 SS1 U21 WP1 N01 N11 N21 NE1 PS1 SS1 U21 WP1

    ALA 37.0  ANA333.0  BEA 34.0  BKA 79.0  BLA 90.0  ITA 88.0  KRA 81.0
    LRA 27.0  MUA 75.0  ALA 37.0  ANA333.0  BEA 34.0  BKA 79.0  BLA 90.0
    ITA 88.0  KRA 81.0  LRA 27.0  MUA 75.0  N0A 90.0  N1A101.0  N2A110.0
    NEA 78.0  PSA 27.0  SSA 36.0  U2A 77.0  WPA328.0  N0A 90.0  N1A101.0
    N2A110.0  NEA 78.0  PSA 27.0  SSA 36.0  U2A 77.0  WPA328.0
**************************************************************************

    U7

Fix=  50  9  4N   16  8 35E  [   49    20   116deg]     3x1000sqm    39nmi 90%
Bearing Utilization    22 used
    AL1 BE1 FL1 BK1 KI1 LR1 N01 N21 NE1 SS1 U21 AL1 BE1 FL1 BK1 KI1 LR1 N01
    N21 NE1 SS1 U21

    ALA 43.0  BEA 51.0  FLA 42.0  BKA 98.0  KIA 36.0  LRA 47.0  N0A138.0
    N2A182.0  NEA 98.0  SSA 41.0  U2A 98.0  ALA 43.0  BEA 51.0  FLA 42.0
    BKA 98.0  KIA 36.0  LRA 47.0  N0A138.0  N2A182.0  NEA 98.0  SSA 41.0
    U2A 98.0
**************************************************************************

    VR

Fix=  59 31 44N   30 36  0E  [   46    29   143deg]     4x1000sqm    39nmi 90%
Bearing Utilization    23 used
    AL1 BE1 CA1 DS1 FE1 FL1 N01 N21 NE0 PS1 SS1 U20 AL1 BE1 CA1 DS1 FE1 FL1
    N01 N21 NE0 PS1 SS1 U21 N31 N31

    ALA 31.0  BEA 38.0  CAA 39.0  DSA 20.0  FEA 15.0  FLA 35.0  N0A 75.0
    N2A138.0  neA 70.0  PSA 32.0  SSA 38.0  u2A 58.0  ALA 31.0  BEA 38.0
    CAA 39.0  DSA 20.0  FEA 15.0  FLA 35.0  N0A 75.0  N2A138.0  neA 70.0
```

```
    PSA 32.0  SSA 38.0  U2A 58.0  N3A166.0  N3A166.0
********************************************************************************

    WD

Fix=  52 58 26N   26 57 14E  [   41   22  115deg]     3x1000sqm    34nmi 90%
Bearing Utilization    22 used
    AL1 BE1 BK1 FL1 N01 N11 N21 NE1 PS1 SS1 U21 AL1 BE1 BK1 FL1 N01 N11 N21
    NE1 PS1 SS1 U21

    ALA 37.0  BEA 45.0  BKA 74.0  FLA 37.0  N0A105.0  N1A145.0  N2A158.0
    NEA 78.0  PSA 37.0  SSA 37.0  U2A 77.0  ALA 37.0  BEA 45.0  BKA 74.0
    FLA 37.0  N0A105.0  N1A145.0  N2A158.0  NEA 78.0  PSA 37.0  SSA 37.0
    U2A 77.0
********************************************************************************

    WI

Fix=  55 49 43N   35 32 35E  [  359   36   90deg]    41x1000sqm   275nmi 90%
Bearing Utilization    16 used
    U21 BK1 BE1 FL1 LR1 PS1 SS1 NE1 U21 BK1 BE1 FL1 LR1 PS1 SS1 NE1

    U2A 65.0  BKA 63.0  BEA 38.0  FLA 30.0  LRA 34.0  PSA 30.0  SSA 34.0
    NEA 67.0  U2A 65.0  BKA 63.0  BEA 38.0  FLA 30.0  LRA 34.0  PSA 30.0
    SSA 34.0  NEA 67.0
********************************************************************************

    WM

Fix=  44 24 15N   67  6 36E  [  362   84  143deg]    96x1000sqm   279nmi 90%
Bearing Utilization    22 used
    AL1 BE1 BK1 CA1 FL1 N01 N11 N21 N31 NE1 PS1 AL1 BE1 BK1 CA1 FL1 N01 N11
    N21 N31 NE1 PS1

    ALA 20.0  BEA 30.0  BKA 75.0  CAA 25.0  FLA 24.0  N0A 82.0  N1A100.0
    N2A105.0  N3A120.0  NEA 78.0  PSA 20.0  ALA 20.0  BEA 30.0  BKA 75.0
    CAA 25.0  FLA 24.0  N0A 82.0  N1A100.0  N2A105.0  N3A120.0  NEA 78.0
    PSA 20.0
********************************************************************************

    WQ

Fix=  48 47 14N   22 23 44E  [   44   15  118deg]     2x1000sqm    34nmi 90%
Bearing Utilization    22 used
    BK1 BL1 FL1 IT1 KO1 N01 N21 N31 NE1 U21 U21 BK1 BL1 FL1 IT1 KO1 N01 N21
    N31 NE1 U21 U21

    BKA 95.0  BLA118.0  FLA 41.0  ITA120.0  KOA 79.0  N0A127.0  N2A169.0
    N3A183.0  NEA101.0  U2A 94.0  U2A 95.0  BKA 95.0  BLA118.0  FLA 41.0
    ITA120.0  KOA 79.0  N0A127.0  N2A169.0  N3A183.0  NEA101.0  U2A 94.0
    U2A 95.0
********************************************************************************
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APPENDIX D: LOCATIONS OF EMITTERS OF HARMFUL INTERFERENCE NOT ASSOCIATED WITH MARKERS FOR JANUARY 1986

1 759x 182 152deg 19.4925 55.9418 35 of 35

????/????????????	07	0250	5960	AN323	C
????/????????????	07	0250	5960	FL045	C
????/????????????	07	0250	5960	SS026	C
????/????????????	11	0252	5960	N0115	B
????/????????????	12	0316	5960	N0115	A
????/????????????	12	0317	5960	N2138	B
????/????????????	07	0341	5960	AN324	C
????/????????????	07	0341	5960	BE062	C
????/????????????	07	0341	5960	DS335	C
????/????????????	07	0341	5960	FE321	C
????/????????????	07	0341	5960	FL040	C
????/????????????	07	0341	5960	WP343	C
????/????????????	10	0341	5960	DS005	C
????/????????????	10	0341	5960	SS047	C
????/????????????	10	0341	5960	WP342	C
????/????????????	07	0415	5960	AN330	C
????/????????????	07	0415	5960	BE062	C
????/????????????	07	0415	5960	DS060	C
????/????????????	07	0415	5960	FL042	C
????/????????????	07	0415	5960	LR053	C
????/????????????	07	0415	5960	SS048	C
????/????????????	06	0420	5960	FE004	C
????/????????????	06	0420	5960	PS043	C
????/????????????	06	0420	5960	AN352	C
????/????????????	06	0420	5960	BE043	C
????/????????????	07	0420	5960	N0112	B
????/????????????	07	0513	5960	FL041	C
????/????????????	07	0513	5960	KI047	C
????/????????????	07	0513	5960	AN340	C
????/????????????	07	0513	5960	DS055	C
????/????????????	07	0513	5960	BE066	C
????/????????????	07	0513	5960	PS053	C
????/????????????	07	0513	5960	SS046	C
????/????????????	07	0513	5960	N0110	C
????/????????????	07	0547	5960	N0117	B

1 711x 196 38deg 30.1630 115.8237 64 of 73

CHIN/TAI	06	1005	6087	DS323	C
CHIN/TAI	06	1005	6087	WP304	C
CHIN/TAI	09	1005	6087	WP295	C
CHIN/TAI	09	1005	6087	AN284	C
CHIN/TAI	08	1006	6087	WP294	C
CHIN/TAI	08	1006	6087	AN282	C
CHIN/TAI	25	1035	6087	DS317	C
CHIN/TAI	25	1035	6087	FE312	C
CHIN/TAI	25	1035	6087	AN311	C
CHIN/TAI	06	1040	6087	DS323	C
CHIN/TAI	06	1040	6087	WP304	C
CHIN/TAI	07	1110	6087	AN288	C
CHIN/TAI	07	1110	6087	WP298	C
CHIN/TAI	20	1110	6087	AN293	C
CHIN/TAI	26	1135	6087	LR022	C
CHIN/TAI	26	1135	6087	FE307	C
CHIN/TAI	26	1135	6087	BE016	C
CHIN/TAI	26	1135	6087	WP296	C
CHIN/TAI	26	1135	6087	DS314	C
CHIN/TAI	26	1135	6087	AN310	C
CHIN/TAI	10	1341	6087	BE020	C
CHIN/TAI	10	1341	6087	LR019	C
CHIN/TAI	10	1341	6087	KI328	C

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                                CHIN/TAI          07 1412  6087 FE311 C
                                CHIN/TAI          07 1412  6087 al132 C
                                CHIN/TAI          07 1412  6087 DS320 C
                                CHIN/TAI          07 1412  6087 AN286 C
                                CHIN/TAI          07 1412  6087 KI326 C
                                CHIN/TAI          07 1412  6087 WP298 C
                                CHIN/TAI          10 1511  6087 AN288 C
                                CHIN/TAI          10 1511  6087 gi146 C
                                CHIN/TAI          10 1511  6087 DS318 C
                                CHIN/TAI          10 1511  6087 FE302 C
                                CHIN/TAI          12 1511  6087 AN280 C
                                CHIN/TAI          12 1511  6087 DS321 C
                                CHIN/TAI          12 1511  6087 FE310 C
                                CHIN/TAI          12 1511  6087 gi143 C
                                CHIN/TAI          11 1541  6087 AN285 C
                                CHIN/TAI          11 1541  6087 DS319 C
                                CHIN/TAI          11 1541  6087 gi142 C
                                CHIN/TAI          07 1544  6087 AN283 C
                                CHIN/TAI          07 1544  6087 gi143 C
                                CHIN/TAI          07 1544  6087 WP294 C
                                CHIN/TAI          07 1544  6087 KI328 C
                                CHIN/TAI          06 1549  6087 DS319 C
                                CHIN/TAI          06 1549  6087 WP295 C
                                CHIN/TAI          06 1549  6087 AN287 C
                                CHIN/TAI          08 1611  6087 DS318 C
                                CHIN/TAI          08 1611  6087 AN290 C
                                CHIN/TAI          10 1611  6087 gi154 C
                                CHIN/TAI          10 1611  6087 AN287 C
                                CHIN/TAI          10 1611  6087 DS315 C
                                CHIN/TAI          12 1612  6087 FE312 C
                                CHIN/TAI          12 1612  6087 gi143 C
                                CHIN/TAI          12 1612  6087 AN287 C
                                CHIN/TAI          12 1612  6087 DS320 C
                                CHIN/TAI          09 1616  6087 AN289 C
                                CHIN/TAI          09 1616  6087 DS317 C
                                CHIN/TAI          07 1641  6087 AN286 C
                                CHIN/TAI          07 1641  6087 FE311 C
                                CHIN/TAI          07 1641  6087 gi143 C
                                CHIN/TAI          07 1711  6087 FE311 C
                                CHIN/TAI          21 1711  6087 FE311 C
                                CHIN/TAI          21 1711  6087 DS321 C
                                CHIN/TAI          06 1741  6087 FE308 C
                                CHIN/TAI          08 1841  6087 gi157 C
                                CHIN/TAI          08 1841  6087 WP325 C
                                CHIN/TAI          11 1841  6087 AN284 C
                                CHIN/TAI          11 1841  6087 DS317 C
                                CHIN/TAI          11 1841  6087 FE311 C
                                CHIN/TAI          07 1846  6087 FE310 C
                                CHIN/TAI          06 1911  6087 FE308 C
                                CHIN/TAI          06 1911  6087 AN285 C
1     58x   16 125deg   49.9717   26.1369   82 of  82
                                RUSS/BBC WOOF     12 0349  6140 FL042 C
                                RUSS/BBC WOOF     12 0349  6140 DS020 C
                                RUSS/BBC WOOF     06 0350  6140 U2100 B
                                ROMA/BBC WOOF     12 0414  6140 N0115 A
                                ROMA/BBC WOOF     11 0415  6140 DS023 C
                                ROMA/BBC WOOF     11 0415  6140 PS048 C
                                ROMA/BBC WOOF     11 0415  6140 FL041 C
                                ????/???????????? 10 0416  6140 N0118 B
                                BULG/BBC WOOF     07 0441  6140 NE073 B
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BULG/BBC WOOF      12 0441  6140 N0115 B
BULG/BBC WOOF      07 0443  6140 BE032 C
BULG/BBC WOOF      07 0443  6140 PS040 C
BULG/BBC WOOF      07 0443  6140 SS044 C
RUSS/BBC WOOF      06 0447  6140 FL044 C
RUSS/BBC WOOF      06 0447  6140 SS037 C
RUSS/BBC WOOF      06 0447  6140 KI045 C
RUSS/BBC WOOF      06 0447  6140 AN354 C
RUSS/BBC WOOF      06 0447  6140 BE041 C
RUSS/BBC WOOF      06 0447  6140 DS036 C
RUSS/BBC WOOF      06 0447  6140 PS045 C
RUSS/BBC WOOF      11 0448  6140 N0113 B
RUSS/BBC WOOF      10 0449  6140 SS047 C
RUSS/BBC WOOF      10 0449  6140 DS015 C
RUSS/BBC WOOF      10 0449  6140 WP343 C
RUSS/BBC WOOF      10 0449  6140 FL042 C
RUSS/BBC WOOF      10 0449  6140 LR040 C
RUSS/BBC WOOF      10 0449  6140 PS037 C
RUSS/BBC WOOF      10 0449  6140 BE028 C
RUSS/BBC WOOF      09 0450  6140 N3150 B
RUSS/BBC WOOF      09 0450  6140 N2140 B
RUSS/BBC WOOF      12 0454  6140 WP342 C
RUSS/BBC WOOF      12 0454  6140 AL014 C
RUSS/BBC WOOF      12 0454  6140 FL042 C
RUSS/BBC WOOF      12 0454  6140 DS024 C
POLI/BBC WOOF      08 0501  6140 U2104 B
POLI/BBC WOOF      10 0501  6140 U2104 B
POLI/BBC WOOF      06 0503  6140 N0116 B
POLI/BBC WOOF      08 0503  6140 NE102 B
POLI/BBC WOOF      06 0505  6140 SS042 C
POLI/BBC WOOF      06 0505  6140 U2097 B
POLI/BBC WOOF      06 0505  6140 DS036 C
POLI/BBC WOOF      06 0505  6140 AN354 C
POLI/BBC WOOF      06 0505  6140 FL044 C
POLI/BBC WOOF      08 0505  6140 DS320 C
POLI/BBC WOOF      08 0505  6140 LR030 C
POLI/BBC WOOF      08 0505  6140 PS040 C
POLI/BBC WOOF      08 0505  6140 AL041 C
POLI/BBC WOOF      08 0505  6140 KI032 C
POLI/BBC WOOF      08 0505  6140 BE042 C
POLI/BBC WOOF      08 0505  6140 AN357 C
POLI/BBC WOOF      08 0505  6140 FL045 C
POLI/BBC WOOF      10 0505  6140 PS037 C
POLI/BBC WOOF      10 0505  6140 DS017 C
POLI/BBC WOOF      10 0505  6140 LR047 C
POLI/BBC WOOF      10 0505  6140 NE105 B
POLI/BBC WOOF      10 0505  6140 FL042 C
POLI/BBC WOOF      10 0505  6140 SS047 C
POLI/BBC WOOF      10 0505  6140 BE032 C
POLI/BBC WOOF      08 0510  6140 FL042 C
POLI/BBC WOOF      08 0510  6140 LR030 C
POLI/BBC WOOF      08 0510  6140 PS040 C
POLI/BBC WOOF      09 0512  6140 FL046 C
POLI/BBC WOOF      09 0512  6140 PS040 C
POLI/BBC WOOF      09 0512  6140 SS043 C
POLI/BBC WOOF      11 0512  6140 DS022 C
POLI/BBC WOOF      11 0512  6140 BE043 C
POLI/BBC WOOF      11 0512  6140 PS040 C
????/???????????? 11 0520  6140 N0113 C
HUNG/BBC WOOF      06 0541  6140 DS036 C
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                                HUNG/BBC WOOF      06 0541   6140 AN354 C
                                HUNG/BBC WOOF      10 0541   6140 WP342 C
                                HUNG/BBC WOOF      10 0541   6140 BE034 C
                                HUNG/BBC WOOF      10 0541   6140 LR054 C
                                HUNG/BBC WOOF      10 0541   6140 CA037 C
                                HUNG/BBC WOOF      10 0541   6140 PS038 C
                                HUNG/BBC WOOF      10 0541   6140 SS047 C
                                HUNG/BBC WOOF      10 0541   6140 FL042 C
                                ????/????????????? 12 0541   6140 N0115 A
                                HUNG/BBC WOOF      06 0545   6140 N0116 B
                                ????/????????????? 07 0611   6140 NE073 B
                                ????/????????????? 07 0615   6140 U2106 B
                                ????/????????????? 09 0712   6140 FL050 C
1    501x   86 151deg   36.9223   44.6388    9 of   9
                                ????/????????????? 11 2141   6155 N0115 A
                                ????/????????????? 11 2142   6155 N2135 B
                                ????/????????????? 06 2153   6155 N0113 B
                                ????/????????????? 06 2154   6155 N2140 A
                                ????/????????????? 09 2211   6155 PS042 C
                                ????/????????????? 09 2211   6155 SS046 C
                                ????/????????????? 09 2211   6155 LR053 C
                                ????/????????????? 09 2211   6155 BE052 C
                                ????/????????????? 12 2225   6155 N0110 B
1     48x   23 112deg   54.9828   19.0136   27 of  32
                                CHIN/TAI           13 0005   7105 NE063 B
                                CHIN/TAI           13 0005   7105 NE063 B
                                CHIN/TAI           13 0006   7105 NE065 C
                                CHIN/TAI           14 0242   7105 DS022 C
                                CHIN/TAI           14 0242   7105 FL048 C
                                CHIN/TAI           14 0242   7105 SS045 C
                                CHIN/TAI           14 0242   7105 BE057 C
                                CHIN/TAI           17 0334   7105 u2105 C
                                CHIN/TAI           17 0335   7105 ne098 B
                                CHIN/TAI           15 0350   7105 N1155 B
                                CHIN/TAI           15 0355   7105 WP337 C
                                CHIN/TAI           15 0355   7105 SS040 C
                                CHIN/TAI           15 0355   7105 FE000 C
                                CHIN/TAI           15 0355   7105 DS022 C
                                CHIN/TAI           14 0405   7105 NE068 C
                                CHIN/TAI           14 0410   7105 FL048 C
                                CHIN/TAI           14 0410   7105 DS011 C
                                CHIN/TAI           14 0410   7105 DS020 C
                                CHIN/TAI           14 0410   7105 SS047 C
                                CHIN/TAI           14 0410   7105 WP339 C
                                CHIN/TAI           14 0410   7105 PS020 C
                                CHIN/TAI           14 0410   7105 SS046 C
                                CHIN/TAI           15 0415   7105 u2105 C
                                CHIN/TAI           18 0427   7105 n2138 A
                                CHIN/TAI           18 0427   7105 N0115 A
                                CHIN/TAI           13 0431   7105 N0110 B
                                CHIN/TAI           13 0431   7105 n2140 B
                                CHIN/TAI           13 0440   7105 PS018 C
                                CHIN/TAI           13 0440   7105 FL049 C
                                CHIN/TAI           13 0440   7105 AN354 C
                                CHIN/TAI           13 0440   7105 SS046 C
                                CHIN/TAI           13 0440   7105 FE011 C
1    709x  113 147deg   32.0099   49 6429   18 of  18
                                ????/????????????? 13 0241   7125 U2100 B
                                ????/????????????? 19 0341   7125 AN334 C
                                ????/????????????? 19 0341   7125 SS051 C
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					????/????????????	19	0341	7125	FE002	C
					????/????????????	19	0341	7125	WP329	C
					????/????????????	19	0341	7125	DS018	C
					????/????????????	17	0343	7125	N0110	A
					????/????????????	17	0344	7125	N1130	B
					????/????????????	15	0414	7125	BE073	C
					????/????????????	15	0414	7125	DS022	C
					????/????????????	15	0414	7125	FE003	C
					????/????????????	15	0414	7125	AN342	C
					????/????????????	15	0414	7125	FL042	C
					????/????????????	15	0414	7125	SS048	C
					????/????????????	15	0414	7125	WP327	C
					????/????????????	18	0420	7125	N0115	A
					????/????????????	16	0441	7125	AN342	C
					????/????????????	16	0441	7125	WP340	C
1	147x	60	136deg	47.7717	41.8322	29 of 29				
					AZ /RL L2	13	0149	7180	NE084	B
					AZ /RL L2	13	0410	7180	DS003	C
					AZ /RL L2	13	0410	7180	FE000	C
					AZ /RL L2	13	0410	7180	AL038	C
					AZ /RL L2	13	0410	7180	FL048	C
					AZ /RL L2	13	0410	7180	SS043	C
					AZ /RL L2	18	0435	7180	FE006	C
					AZ /RL L2	18	0435	7180	AN340	C
					AZ /RL L2	18	0435	7180	WP343	C
					AZ /RL L2	18	0435	7180	DS339	C
					RUSS/RL L2	19	0518	7180	DS008	C
					RUSS/RL L2	19	0518	7180	PS030	C
					RUSS/RL L2	19	0518	7180	FL040	C
					RUSS/RL L2	19	0518	7180	AN007	C
					RUSS/RL L2	19	0518	7180	WP344	C
					RUSS/RL L2	13	0541	7180	NE083	B
					CZEC/RFE B4	18	0605	7180	AL012	C
					CZEC/RFE B4	18	0605	7180	LR038	C
					CZEC/RFE B4	18	0605	7180	FL042	C
					CZEC/RFE B4	18	0605	7180	SS039	C
					CZEC/RFE B4	18	0605	7180	BE028	C
					CZEC/RFE B4	13	0641	7180	NE083	B
					CZEC/RFE B4	13	0645	7180	U2099	B
					CZEC/RFE B4	17	0743	7180	N2135	A
					????/????????????	16	0811	7180	SS044	C
					????/????????????	16	0811	7180	FL043	C
					????/????????????	16	0811	7180	LR049	C
					????/????????????	16	0811	7180	PS048	C
					????/????????????	16	0811	7180	FE021	C
1	35x	10	107deg	50.8509	16.4187	150 of 150				
					ARAB/IRN	19	0426	7215	AN335	C
					ARAB/IRN	19	0426	7215	DS021	C
					ARAB/IRN	19	0426	7215	PS042	C
					ARAB/IRN	19	0426	7215	WP336	C
					ARAB/IRN	19	0426	7215	SS041	C
					ARAB/IRN	19	0426	7215	FE005	C
					ARAB/IRN	19	0426	7215	AL042	C
					ARAB/IRN	19	0426	7215	FL045	C
					ARAB/IRN	19	0444	7215	U2097	B
					ARAB/IRN	14	0457	7215	WP340	C
					ARAB/IRN	14	0457	7215	FL044	C
					ARAB/IRN	14	0457	7215	PS043	C
					ARAB/IRN	14	0457	7215	AL018	C
					ARAB/IRN	14	0457	7215	SS048	C

ARAB/IRN	14	0457	7215	DS020	C
ARAB/IRN	17	0511	7215	U2105	B
ARAB/IRN	18	0511	7215	U2100	A
ARAB/IRN	13	0514	7215	U2105	C
ARAB/IRN	16	0555	7215	FL043	C
ARAB/IRN	16	0555	7215	LR053	C
ARAB/IRN	16	0555	7215	PS043	C
ARAB/IRN	16	0555	7215	SS042	C
ARAB/IRN	16	0555	7215	BE055	C
ARAB/IRN	19	0611	7215	FL042	C
ARAB/IRN	19	0611	7215	WP344	C
ARAB/IRN	19	0611	7215	DS018	C
ARAB/IRN	19	0611	7215	PS032	C
ARAB/IRN	19	0611	7215	AN356	C
ARAB/IRN	19	0611	7215	BE020	C
ARAB/IRN	19	0614	7215	FL044	C
ARAB/IRN	19	0614	7215	PS033	C
ARAB/IRN	19	0615	7215	U2102	B
ARAB/IRN	14	0820	7215	NE072	B
ARAB/IRN	14	1110	7215	NE073	B
ARAB/IRN	14	1415	7215	AN352	C
ARAB/IRN	14	1415	7215	AL022	C
ARAB/IRN	14	1415	7215	GI023	C
ARAB/IRN	14	1415	7215	PS020	C
ARAB/IRN	14	1415	7215	DS321	C
ARAB/OA	14	1541	7215	NE100	B
ARAB/OA	16	1541	7215	U2101	B
ARAB/OA	16	1541	7215	N2135	B
ARAB/OA	15	1611	7215	U2108	B
ARAB/OA	19	1611	7215	U2073	A
ARAB/OA	19	1611	7215	U2106	A
ARAB/OA	15	1622	7215	N0120	B
ARAB/OA	15	1623	7215	N2148	B
ARAB/OA	14	1636	7215	NE100	B
ARAB/OA	15	1655	7215	N0115	B
ARAB/OA	17	1701	7215	NE104	B
ARAB/OA	17	1701	7215	U2102	B
ARAB/OA	17	1701	7215	BK098	B
ARAB/OA	13	1704	7215	NE100	B
ARAB/OA	13	1705	7215	U2101	B
ARAB/OA	13	1705	7215	LR046	C
ARAB/OA	13	1705	7215	BE054	C
ARAB/OA	13	1705	7215	FE015	C
ARAB/OA	13	1705	7215	AN352	C
ARAB/OA	14	1705	7215	SS052	C
ARAB/OA	14	1705	7215	AN352	C
ARAB/OA	14	1705	7215	WP332	C
ARAB/OA	14	1705	7215	FE012	C
ARAB/OA	14	1708	7215	NE101	B
ARAB/OA	17	1708	7215	BE053	C
ARAB/OA	17	1708	7215	SS050	C
ARAB/OA	17	1708	7215	LR046	C
ARAB/OA	16	1712	7215	N0110	B
ARAB/OA	16	1712	7215	N3152	B
ARAB/OA	14	1740	7215	NE107	B
ARAB/OA	19	1741	7215	FL043	C
ARAB/OA	19	1741	7215	AL038	C
ARAB/OA	19	1741	7215	LR048	C
ARAB/OA	19	1741	7215	BE055	C
ARAB/OA	16	1745	7215	FE002	C

ARAB/OA	16	1745	7215	AN003	C
ARAB/OA	16	1745	7215	BE056	C
ARAB/OA	16	1745	7215	WP333	C
ARAB/OA	14	1808	7215	NE107	B
ARAB/OA	18	1811	7215	AL036	C
ARAB/OA	18	1811	7215	BE053	C
ARAB/OA	18	1811	7215	GI030	C
ARAB/OA	18	1811	7215	SS051	C
ARAB/OA	18	1815	7215	FE014	C
ARAB/OA	18	1815	7215	WP332	C
ARAB/OA	18	1815	7215	GI030	C
ARAB/OA	18	1820	7215	U2105	B
ARAB/OA	14	1911	7215	NE107	B
ARAB/OA	14	1911	7215	NE106	B
ARAB/OA	14	1911	7215	NE100	B
ARAB/OA	17	1911	7215	LR050	C
ARAB/OA	17	1911	7215	AL045	C
ARAB/OA	17	1911	7215	BE054	C
ARAB/OA	17	1911	7215	FL045	C
ARAB/OA	17	1911	7215	SS050	C
ARAB/OA	17	1911	7215	PS043	C
ARAB/OA	14	1915	7215	AN352	C
ARAB/OA	14	1915	7215	BE052	C
ARAB/OA	15	1918	7215	FL043	C
ARAB/OA	15	1918	7215	BE047	C
ARAB/OA	15	1918	7215	SS051	C
ARAB/OA	13	1943	7215	PS042	C
ARAB/OA	13	1943	7215	AL042	C
ARAB/OA	13	1943	7215	AN351	C
ARAB/OA	13	1943	7215	FE015	C
ARAB/OA	13	1943	7215	FL040	C
ARAB/OA	13	1943	7215	BE050	C
ARAB/OA	13	1943	7215	SS037	C
ARAB/OA	13	1943	7215	LR042	C
ARAB/OA	16	1952	7215	WP335	C
ARAB/OA	16	1952	7215	AL042	C
ARAB/OA	16	1952	7215	FL043	C
ARAB/OA	16	1952	7215	LR046	C
ARAB/OA	16	1952	7215	SS048	C
ARAB/OA	13	2001	7215	U2102	B
ARAB/OA	15	2001	7215	U2105	C
ARAB/OA	18	2001	7215	U2102	B
ARAB/OA	15	2004	7215	NE099	B
ARAB/OA	15	2005	7215	BE046	C
ARAB/OA	15	2005	7215	FL045	C
ARAB/OA	15	2005	7215	WP330	C
ARAB/OA	18	2009	7215	LR047	C
ARAB/OA	18	2009	7215	GI039	C
ARAB/OA	18	2009	7215	WP333	C
ARAB/OA	18	2009	7215	AL037	C
ARAB/OA	18	2009	7215	FL042	C
ARAB/OA	18	2009	7215	PS043	C
ARAB/OA	13	2010	7215	WP330	C
ARAB/OA	13	2010	7215	FL039	C
ARAB/OA	13	2010	7215	WP330	C
ARAB/OA	13	2010	7215	KI036	C
ARAB/OA	13	2010	7215	LR044	C
ARAB/OA	13	2010	7215	PS044	C
ARAB/OA	13	2010	7215	FE025	C
ARAB/OA	13	2010	7215	AL041	C

					ARAB/OA		13	2010	7215	KI037 C
					ARAB/OA		13	2010	7215	AL042 C
					ARAB/OA		13	2010	7215	PS043 C
					ARAB/OA		13	2010	7215	AN352 C
					ARAB/OA		13	2010	7215	CA047 C
					ARAB/OA		13	2010	7215	FL039 C
					ARAB/OA		14	2011	7215	NE070 B
					ARAB/OA		14	2023	7215	N0114 B
					ARAB/OA		14	2023	7215	N2139 B
					ARAB/OA		13	2111	7215	BE049 C
					ARAB/OA		13	2111	7215	WP325 C
					ARAB/OA		13	2111	7215	AN352 C
					ARAB/OA		13	2111	7215	AL040 C
					ARAB/OA		13	2111	7215	LR044 C
					ARAB/OA		13	2111	7215	PS040 C
					ARAB/OA		13	2111	7215	FL045 C
1	716x	226	120deg	49.3042	63.3557	7 of 7				
					RUSS/VOA KAV 9		15	0411	7270	FE003 C
					RUSS/VOA KAV 9		15	0411	7270	SS039 C
					RUSS/VOA KAV 9		15	0411	7270	AN346 C
					RUSS/VOA MUN 2		17	1901	7270	NE074 B
					RUSS/VOA MUN 2		13	2157	7270	FE344 C
					RUSS/VOA MUN 2		16	2210	7270	U2064 B
					RUSS/VOA MUN 2		14	2236	7270	AN327 C
1	138x	38	108deg	53.9867	47.2570	21 of 21				
					POLI/RFE G1B		21	0641	9705	U2065 C
					POLI/RFE G1B		24	0703	9705	NE066 B
					POLI/RFE B2		21	0733	9705	U2068 B
					POLI/RFE B2		26	0835	9705	NE068 B
					POLI/RFE B2		21	0911	9705	NE068 B
					POLI/RFE B2		21	0915	9705	U2080 B
					POLI/RFE B2		20	0931	9705	U2065 B
					POLI/RFE B2		22	1001	9705	N3135 B
					POLI/RFE B2		24	1001	9705	U2072 B
					POLI/RFE B2		22	1005	9705	U2067 B
					POLI/RFE B2		24	1005	9705	NE068 B
					POLI/RFE B2		21	1011	9705	NE069 B
					POLI/RFE B2		21	1110	9705	NE069 B
					POLI/RFE B2		21	1232	9705	NE069 B
					POLI/RFE B2		21	1232	9705	NE069 B
					POLI/RFE B2		21	1235	9705	U2068 B
					POLI/RFE B2		21	1238	9705	NE069 B
					POLI/RFE B2		21	1238	9705	NE068 B
					POLI/RFE B2		20	1301	9705	U2067 B
					POLI/RFE B2		21	1410	9705	NE068 B
					POLI/RFE B2		21	1439	9705	NE068 B
1	295x	46	137deg	34.9500	46.0027	43 of 43				
					????/????????????		08	0540	11790	NE102 B
					????/????????????		08	0614	11790	NE102 B
					????/????????????		09	0637	11790	NE101 B
					????/????????????		07	0644	11790	N0115 B
					????/????????????		07	0645	11790	U2110 C
					????/????????????		07	0645	11790	N2135 A
					????/????????????		11	0652	11790	N0116 B
					????/????????????		09	0708	11790	NE105 B
					????/????????????		08	0710	11790	NE102 B
					????/????????????		09	0736	11790	NE105 B
					????/????????????		09	0810	11790	NE105 B
					????/????????????		08	0812	11790	NE104 B
					????/????????????		09	0837	11790	NE101 B

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                                        ????/???????????? 08 0851 11790 NE104 B
                                        ????/???????????? 09 0910 11790 NE105 B
                                        ????/???????????? 11 0911 11790 N0113 B
                                        ????/???????????? 08 0914 11790 NE104 B
                                        ????/???????????? 09 0936 11790 NE105 B
                                        ????/???????????? 08 0945 11790 NE104 B
                                        ????/???????????? 08 1020 11790 NE104 B
                                        ????/???????????? 09 1035 11790 NE105 B
                                        ????/???????????? 08 1055 11790 NE104 B
                                        ????/???????????? 09 1105 11790 NE105 B
                                        ????/???????????? 08 1115 11790 NE104 B
                                        ????/???????????? 09 1138 11790 NE105 B
                                        ????/???????????? 08 1150 11790 NE105 B
                                        ????/???????????? 10 1153 11790 U2105 B
                                        ????/???????????? 09 1210 11790 NE104 B
                                        ????/???????????? 12 1220 11790 U2105 B
                                        ????/???????????? 12 1223 11790 N2140 B
                                        ????/???????????? 12 1223 11790 N0115 B
                                        ????/???????????? 09 1240 11790 NE104 B
                                        ????/???????????? 08 1249 11790 AN350 C
                                        ????/???????????? 08 1249 11790 PS044 C
                                        ????/???????????? 08 1249 11790 FL041 C
                                        ????/???????????? 08 1249 11790 SS042 C
                                        ????/???????????? 08 1250 11790 U2105 B
                                        ????/???????????? 07 1254 11790 BE061 C
                                        ????/???????????? 07 1254 11790 LR015 C
                                        ????/???????????? 07 1254 11790 SS013 C
                                        ????/???????????? 09 1310 11790 NE105 B
                                        ????/???????????? 08 1312 11790 N0120 B
                                        ????/???????????? 09 1411 11790 NE104 B
1    595x  251 144deg   39.0564   58.3340   34 of  36
                                        TI  /RL  P4       07 0140 11885 FE328 C
                                        TI  /RL  P4       07 0140 11885 dm273 C
                                        TI  /RL  P4       07 0140 11885 WP313 C
                                        TI  /RL  P4       07 0140 11885 AN312 C
                                        RUSS/RL  P5       07 0741 11885 FE013 C
                                        RUSS/RL  B4       09 1118 11885 NE080 B
                                        RUSS/RL  B4       10 1255 11885 AL032 C
                                        RUSS/RL  B4       10 1255 11885 LR039 C
                                        RUSS/RL  B4       10 1255 11885 BE040 C
                                        RUSS/RL  B4       09 1347 11885 ne066 B
                                        DARI/RFE B4       07 1411 11885 AN290 C
                                        RUSS/RL  B4       08 1441 11885 FL040 C
                                        RUSS/RL  B4       08 1441 11885 KI037 C
                                        RUSS/RL  B4       08 1441 11885 BE046 C
                                        RUSS/RL  B4       08 1441 11885 SS048 C
                                        RUSS/RL  B4       08 1441 11885 GI031 C
                                        RUSS/RL  B4       08 1441 11885 DS025 C
                                        RUSS/RL  B4       08 1441 11885 CA037 C
                                        ????/???????????? 12 1448 11885 GI035 C
                                        ????/???????????? 12 1448 11885 PS041 C
                                        ????/???????????? 12 1448 11885 BE050 C
                                        ????/???????????? 12 1448 11885 SS042 C
                                        ????/???????????? 12 1448 11885 LR047 C
                                        ????/???????????? 12 1448 11885 KI036 C
                                        ????/???????????? 12 1448 11885 FL041 C
                                        RUSS/RL  HB       10 1545 11885 KI034 C
                                        RUSS/RL  HB       10 1545 11885 AN004 C
                                        RUSS/RL  HB       10 1545 11885 DS031 C
                                        RUSS/RL  HB       12 1551 11885 LR045 C
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					RUSS/RL	HB	12	1551	11885	PS043	C
					RUSS/RL	HB	12	1551	11885	KI038	C
					RUSS/RL	HB	12	1551	11885	GI040	C
					UKR /RL	G4B	06	1945	11885	WP317	C
					UKR /RL	G4B	06	1945	11885	DS328	C
					UKR /RL	G4B	06	1945	11885	AN292	C
					UKR /RL	G4B	06	1945	11885	FE011	C
1	25x	9 115deg	50.7250	21.2309	195 of 195						
					ARAB/IRN		09	0410	6150	U2105	B
					ARAB/IRN		10	0411	6150	DS001	C
					ARAB/IRN		10	0411	6150	BE032	C
					ARAB/IRN		10	0411	6150	KI048	C
					ARAB/IRN		10	0411	6150	PS036	C
					ARAB/IRN		10	0411	6150	LR042	C
					ARAB/IRN		10	0411	6150	FE014	C
					ARAB/IRN		10	0411	6150	FL045	C
					ARAB/IRN		12	0415	6150	N0115	A
					ARAB/IRN		12	0442	6150	N0115	B
					ARAB/IRN		12	0442	6150	N0105	A
					ARAB/IRN		06	0513	6150	N0116	B
					ARAB/IRN		09	0516	6150	FL040	C
					ARAB/IRN		09	0516	6150	SS039	C
					ARAB/IRN		11	0523	6150	N0113	B
					ARAB/IRN		11	0525	6150	N2140	B
					ARAB/IRN		12	0541	6150	N0115	B
					ARAB/IRN		07	0610	6150	NE062	B
					ARAB/IRN		19	0426	7215	AN335	C
					ARAB/IRN		19	0426	7215	DS021	C
					ARAB/IRN		19	0426	7215	PS042	C
					ARAB/IRN		19	0426	7215	WP336	C
					ARAB/IRN		19	0426	7215	SS041	C
					ARAB/IRN		19	0426	7215	FE005	C
					ARAB/IRN		19	0426	7215	AL042	C
					ARAB/IRN		19	0426	7215	FL045	C
					ARAB/IRN		19	0444	7215	U2097	B
					ARAB/IRN		14	0457	7215	WP340	C
					ARAB/IRN		14	0457	7215	FL044	C
					ARAB/IRN		14	0457	7215	PS043	C
					ARAB/IRN		14	0457	7215	AL018	C
					ARAB/IRN		14	0457	7215	SS040	C
					ARAB/IRN		14	0457	7215	DS020	C
					ARAB/IRN		17	0511	7215	U2105	B
					ARAB/IRN		18	0511	7215	U2100	A
					ARAB/IRN		13	0514	7215	U2105	C
					ARAB/IRN		16	0555	7215	FL043	C
					ARAB/IRN		16	0555	7215	LR053	C
					ARAB/IRN		16	0555	7215	PS043	C
					ARAB/IRN		16	0555	7215	SS042	C
					ARAB/IRN		16	0555	7215	BE055	C
					ARAB/IRN		19	0611	7215	FL042	C
					ARAB/IRN		19	0611	7215	WP344	C
					ARAB/IRN		19	0611	7215	DS018	C
					ARAB/IRN		19	0611	7215	PS032	C
					ARAB/IRN		19	0611	7215	AN356	C
					ARAB/IRN		19	0611	7215	BE020	C
					ARAB/IRN		19	0614	7215	FL044	C
					ARAB/IRN		19	0614	7215	PS033	C
					ARAB/IRN		19	0615	7215	U2102	B
					ARAB/IRN		14	0820	7215	NE072	B
					ARAB/IRN		14	1110	7215	NE073	B

ARAB/IRN	14	1415	7215	AN352	C
ARAB/IRN	14	1415	7215	AL022	C
ARAB/IRN	14	1415	7215	GI023	C
ARAB/IRN	14	1415	7215	PS020	C
ARAB/IRN	14	1415	7215	DS321	C
ARAB/OA	14	1541	7215	NE100	B
ARAB/OA	16	1541	7215	U2101	B
ARAB/OA	16	1541	7215	N2135	B
ARAB/OA	15	1611	7215	U2108	B
ARAB/OA	19	1611	7215	U2073	A
ARAB/OA	19	1611	7215	U2106	A
ARAB/OA	15	1622	7215	N0120	B
ARAB/OA	15	1623	7215	N2148	B
ARAB/OA	14	1636	7215	NE100	B
ARAB/OA	15	1655	7215	N0115	B
ARAB/OA	17	1701	7215	NE104	B
ARAB/OA	17	1701	7215	U2102	B
ARAB/OA	17	1701	7215	BK098	B
ARAB/OA	13	1704	7215	NE100	B
ARAB/OA	13	1705	7215	U2101	B
ARAB/OA	13	1705	7215	LR046	C
ARAB/OA	13	1705	7215	BE054	C
ARAB/OA	13	1705	7215	FE015	C
ARAB/OA	13	1705	7215	AN352	C
ARAB/OA	14	1705	7215	SS052	C
ARAB/OA	14	1705	7215	AN352	C
ARAB/OA	14	1705	7215	WP332	C
ARAB/OA	14	1705	7215	FE012	C
ARAB/OA	14	1708	7215	NE101	B
ARAB/OA	17	1708	7215	BE053	C
ARAB/OA	17	1708	7215	SS050	C
ARAB/OA	17	1708	7215	LR046	C
ARAB/OA	16	1712	7215	N0110	B
ARAB/OA	16	1712	7215	N3152	B
ARAB/OA	14	1740	7215	NE107	B
ARAB/OA	19	1741	7215	FL043	C
ARAB/OA	19	1741	7215	AL038	C
ARAB/OA	19	1741	7215	LR048	C
ARAB/OA	19	1741	7215	BE055	C
ARAB/OA	16	1745	7215	FE002	C
ARAB/OA	16	1745	7215	AN003	C
ARAB/OA	16	1745	7215	BE056	C
ARAB/OA	16	1745	7215	WP333	C
ARAB/OA	14	1808	7215	NE107	B
ARAB/OA	18	1811	7215	AL036	C
ARAB/OA	18	1811	7215	BE053	C
ARAB/OA	18	1811	7215	GI030	C
ARAB/OA	18	1811	7215	SS051	C
ARAB/OA	18	1815	7215	FE014	C
ARAB/OA	18	1815	7215	WP332	C
ARAB/OA	18	1815	7215	GI030	C
ARAB/OA	18	1820	7215	U2105	B
ARAB/OA	14	1911	7215	NE107	B
ARAB/OA	14	1911	7215	NE106	B
ARAB/OA	17	1911	7215	LR050	C
ARAB/OA	17	1911	7215	AL045	C
ARAB/OA	17	1911	7215	BE054	C
ARAB/OA	17	1911	7215	FL045	C
ARAB/OA	17	1911	7215	SS050	C
ARAB/OA	17	1911	7215	PS043	C

ARAB/OA	14	1915	7215	AN352	C
ARAB/OA	14	1915	7215	BE052	C
ARAB/OA	15	1918	7215	FL043	C
ARAB/OA	15	1918	7215	BE047	C
ARAB/OA	15	1918	7215	SS051	C
ARAB/OA	13	1943	7215	PS042	C
ARAB/OA	13	1943	7215	AL042	C
ARAB/OA	13	1943	7215	AN351	C
ARAB/OA	13	1943	7215	FE015	C
ARAB/OA	13	1943	7215	FL040	C
ARAB/OA	13	1943	7215	BE050	C
ARAB/OA	13	1943	7215	SS037	C
ARAB/OA	13	1943	7215	LR042	C
ARAB/OA	16	1952	7215	WP335	C
ARAB/OA	16	1952	7215	AL042	C
ARAB/OA	16	1952	7215	FL043	C
ARAB/OA	16	1952	7215	LR046	C
ARAB/OA	16	1952	7215	SS048	C
ARAB/OA	13	2001	7215	U2102	B
ARAB/OA	15	2001	7215	U2105	C
ARAB/OA	18	2001	7215	U2102	B
ARAB/OA	15	2005	7215	BE046	C
ARAB/OA	15	2005	7215	FL045	C
ARAB/OA	15	2005	7215	WP330	C
ARAB/OA	18	2009	7215	LR047	C
ARAB/OA	18	2009	7215	GI039	C
ARAB/OA	18	2009	7215	WP333	C
ARAB/OA	18	2009	7215	AL037	C
ARAB/OA	18	2009	7215	FL042	C
ARAB/OA	18	2009	7215	PS043	C
ARAB/OA	13	2010	7215	WP330	C
ARAB/OA	13	2010	7215	FL039	C
ARAB/OA	13	2010	7215	WP330	C
ARAB/OA	13	2010	7215	KI036	C
ARAB/OA	13	2010	7215	LR044	C
ARAB/OA	13	2010	7215	PS044	C
ARAB/OA	13	2010	7215	FE025	C
ARAB/OA	13	2010	7215	AL041	C
ARAB/OA	13	2010	7215	KI037	C
ARAB/OA	13	2010	7215	AL042	C
ARAB/OA	13	2010	7215	PS043	C
ARAB/OA	13	2010	7215	AN352	C
ARAB/OA	13	2010	7215	CA047	C
ARAB/OA	13	2010	7215	FL039	C
ARAB/OA	14	2011	7215	NE070	B
ARAB/OA	14	2023	7215	N0114	B
ARAB/OA	14	2023	7215	N2139	B
ARAB/OA	13	2111	7215	BE049	C
ARAB/OA	13	2111	7215	WP325	C
ARAB/OA	13	2111	7215	AN352	C
ARAB/OA	13	2111	7215	AL040	C
ARAB/OA	13	2111	7215	LR044	C
ARAB/OA	13	2111	7215	PS040	C
ARAB/OA	13	2111	7215	FL045	C
ARAB/IRN	08	0540	11745	NE112	B
ARAB/IRN	07	0646	11745	N0110	B
ARAB/IRN	07	0647	11745	N0135	B
ARAB/IRN	08	0912	11745	NE105	B
ARAB/IRN	08	1015	11745	NE104	B
ARAB/IRN	08	1050	11745	NE105	B

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                                ARAB/IRN          07 1241 11745 SS047 C
                                ARAB/IRN          07 1241 11745 FL046 C
                                ARAB/IRN          07 1241 11745 PS038 C
                                ARAB/IRN          08 1241 11745 NE098 B
                                ARAB/IRN          08 1242 11745 AN350 C
                                ARAB/IRN          08 1242 11745 AL047 C
                                ARAB/IRN          08 1242 11745 SS044 C
                                ARAB/IRN          08 1242 11745 FL045 C
                                ARAB/IRN          08 1242 11745 LR048 C
                                ARAB/IRN          08 1242 11745 PS046 C
                                ARAB/IRN          08 1242 11745 BE055 C
                                ARAB/IRN          08 1245 11745 N2140 B
                                ARAB/IRN          08 1245 11745 NE105 B
                                ARAB/IRN          08 1245 11745 N1130 B
                                ARAB/IRN          08 1245 11745 N0105 B
                                ARAB/IRN          08 1245 11745 U2068 C
                                ????/?????????????? 08 1312 11745 N0120 B
                                ????/?????????????? 08 1315 11745 NE099 B
                                ????/?????????????? 09 1416 11745 KI043 C
                                ????/?????????????? 09 1416 11745 FL048 C
                                ????/?????????????? 09 1416 11745 PS041 C
                                ????/?????????????? 09 1416 11745 LR048 C
                                ????/?????????????? 06 1441 11745 PS042 C
1   611x  169  40deg   28.3969  113.8660   93 of  93
                                CHIN/TAI          06 1005  6087 DS323 C
                                CHIN/TAI          06 1005  6087 WP304 C
                                CHIN/TAI          09 1005  6087 WP295 C
                                CHIN/TAI          09 1005  6087 AN284 C
                                CHIN/TAI          08 1006  6087 WP294 C
                                CHIN/TAI          08 1006  6087 AN282 C
                                CHIN/TAI          25 1035  6087 DS317 C
                                CHIN/TAI          25 1035  6087 FE312 C
                                CHIN/TAI          25 1035  6087 AN311 C
                                CHIN/TAI          06 1040  6087 DS323 C
                                CHIN/TAI          06 1040  6087 WP304 C
                                CHIN/TAI          07 1110  6087 AN288 C
                                CHIN/TAI          07 1110  6087 WP298 C
                                CHIN/TAI          20 1110  6087 AN293 C
                                CHIN/TAI          26 1135  6087 FE307 C
                                CHIN/TAI          26 1135  6087 WP296 C
                                CHIN/TAI          26 1135  6087 DS314 C
                                CHIN/TAI          26 1135  6087 AN310 C
                                CHIN/TAI          10 1341  6087 KI328 C
                                CHIN/TAI          07 1412  6087 FE311 C
                                CHIN/TAI          07 1412  6087 DS320 C
                                CHIN/TAI          07 1412  6087 AN286 C
                                CHIN/TAI          07 1412  6087 KI326 C
                                CHIN/TAI          07 1412  6087 WP298 C
                                CHIN/TAI          10 1511  6087 AN288 C
                                CHIN/TAI          10 1511  6087 DS318 C
                                CHIN/TAI          10 1511  6087 FE302 C
                                CHIN/TAI          12 1511  6087 AN280 C
                                CHIN/TAI          12 1511  6087 DS321 C
                                CHIN/TAI          12 1511  6087 FE310 C
                                CHIN/TAI          11 1541  6087 AN285 C
                                CHIN/TAI          11 1541  6087 DS319 C
                                CHIN/TAI          07 1544  6087 AN283 C
                                CHIN/TAI          07 1544  6087 WP294 C
                                CHIN/TAI          07 1544  6087 KI328 C
                                CHIN/TAI          06 1549  6087 DS319 C
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CHIN/TAI	06	1549	6087	WP295	C
CHIN/TAI	06	1549	6087	AN287	C
CHIN/TAI	08	1611	6087	DS318	C
CHIN/TAI	08	1611	6087	AN290	C
CHIN/TAI	10	1611	6087	AN287	C
CHIN/TAI	10	1611	6087	DS315	C
CHIN/TAI	12	1612	6087	FE312	C
CHIN/TAI	12	1612	6087	AN287	C
CHIN/TAI	12	1612	6087	DS320	C
CHIN/TAI	09	1616	6087	AN289	C
CHIN/TAI	09	1616	6087	DS317	C
CHIN/TAI	07	1641	6087	AN286	C
CHIN/TAI	07	1641	6087	FE311	C
CHIN/TAI	07	1711	6087	FE311	C
CHIN/TAI	21	1711	6087	FE311	C
CHIN/TAI	21	1711	6087	DS321	C
CHIN/TAI	06	1741	6087	FE308	C
CHIN/TAI	08	1841	6087	WP325	C
CHIN/TAI	11	1841	6087	AN284	C
CHIN/TAI	11	1841	6087	DS317	C
CHIN/TAI	11	1841	6087	FE311	C
CHIN/TAI	07	1846	6087	FE310	C
CHIN/TAI	06	1911	6087	FE308	C
CHIN/TAI	06	1911	6087	AN285	C
CHIN/TAI	11	1541	6180	AN285	C
CHIN/TAI	11	1541	6180	DS320	C
CHIN/TAI	07	1650	6180	AN286	C
CHIN/TAI	07	1650	6180	FE308	C
CHIN/TAI	23	1311	9630	AN296	C
CHIN/TAI	23	1317	9630	DS323	C
CHIN/TAI	23	1317	9630	WP300	C
CHIN/TAI	25	1318	9630	DS320	C
CHIN/TAI	25	1318	9630	WP298	C
CHIN/TAI	20	2041	9630	AN292	C
CHIN/TAI	20	2041	9630	WP295	C
CHIN/TAI	20	2041	9630	FE311	C
CHIN/TAI	24	2043	9630	AN292	C
CHIN/TAI	24	2043	9630	WP301	C
????/????????????	25	2218	9630	FE312	C
CHIN/TAI	21	0943	9690	DS318	C
CHIN/TAI	21	0943	9690	WP300	C
CHIN/TAI	21	0943	9690	AN295	C
CHIN/TAI	21	0943	9690	FE305	C
CHIN/TAI	23	1011	9690	DS315	C
CHIN/TAI	23	1011	9690	WP302	C
CHIN/TAI	25	1119	9690	DS035	C
CHIN/TAI	25	1211	9690	DS036	C
CHIN/TAI	24	1215	9690	WP300	C
CHIN/TAI	24	1215	9690	DS315	C
CHIN/TAI	25	1317	9690	KI044	C
CHIN/TAI	25	1317	9690	DS038	C
CHIN/TAI	23	1324	9690	AN287	C
CHIN/TAI	23	1324	9690	WP302	C
CHIN/TAI	25	1324	9690	KI322	C
CHIN/TAI	25	1324	9690	DS318	C
CHIN/TAI	26	1710	9690	DS319	C
CHIN/TAI	26	1710	9690	GI027	C

FORM **NTIA-29**
(4-80)

U.S. DEPARTMENT OF COMMERCE
NAT'L. TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

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15. ABSTRACT *(A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.)*

This is the second 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 January 1986 monitoring program conducted by the International Frequency Registration Board, the report describes procedures used to analyze the data; amplifies studies of earlier monitoring programs; identifies frequently-observed emitters of harmful interference; and notes the extent of such interference to programs of leading international broadcast organizations.

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