```
670  27364  92836  09428  61208  74982  36498  32764  81276  81
986  40932  70987  32123  49817  26346  81287  65491  87364  81
721  75654  55656  12737  72727  72727  91918  63473  67867  70
723  87629  37677  32612  53498  71296  28756  18276  98716  87
269  76329  74698  76857  98670  27601  56701  57601  73648  15
591  87364  87265  96710  27630  12673  84769  28743  98127  5
  8  63298  75698  27465  87326  49876  28376  81273  98615  62
 67  87432  74328  78674  29867  32867  67867  86786  43296  492
 57  68768  68763  34234  34238  68768  62342  48273  48768  234
936  98432  32432  86743  43286  43286  43286  43286  43286  43
743  86743  86743  39867  32867  86743  43286  43286  43243  86
741  86743  86743  86743  86743  86743  86743  86743  86743  435
543  98798  98754  98754  98754  98754  29867  67543  67986  86
 76  87698  69876  87698  69876  87612  12341  34867  86798  632
967  43298  65656  56756  56123  32143  14321  32143  14321  321
     12787  58765  76587  58765  76587  58765  76587  58756  765
              36543  36543  54365  36543  54365  36543
```

Numbers & Oddities
a.k.a. The Spooks Newsletter

Edition #188, May 2013

Editor: Ary Boender   email: ary@luna.nl

Check for previous newsletters, info, sound samples and databases also:

NUMBERS & ODDITIES http://www.numbersoddities.nl

SPY NUMBERS ONLINE DATABASE http://www.spynumbers.com/numbersDB

UTILITY DXERS FORUM (UDXF) http://www.udxf.nl

START PAGE http://home.luna.nl/~ary

Due to my vacation N&O is a bit later than usual. We have an impressive amount of M89 reports/transcripts from Jean-Paul but I received almost no other transcripts in May and also had no time to listen to numbers stations myself. Apart from that I experienced a lot of problems with the Estonian remote receiver that I use for monitoring S28.

Ian Wraith's Rivet has been updated again and can be downloaded from **http://borg.shef.ac.uk/rivet/**
Patrick Lindecker informs us that the new release of MultiPSK (4.24) is available from **http://f6cte.free.fr**

VOICE STATIONS

E07

13412/11512 kHz, 29-05, 1920/1940 UTC:

845 1 328 111
29219 62206 57584 34743 25659 32775 19281 71747 47706 54184
66177 55853 83221 40432 26131 18559 19927 14731 26707 17402
02086 50804 58337 92895 35915 30549 68588 90371 24519 35294
19872 36753 33427 77647 05110 91085 82361 25300 17594 41028
82116 81039 13570 61807 18544 56851 98958 31203 00283 80562
08470 91161 69841 46239 34601 70745 13994 94394 64368 77622
70800 75911 20018 91603 18972 13773 30055 92401 07863 05538
61112 26118 20635 21229 02454 46462 16445 21156 93192 29504
21254 34128 35332 11108 14644 33914 67819 78151 43428 24831
80037 65980 48062 52953 43895 04352 10011 58942 47344 85647
95642 16694 75716 89?96 42973 26899 79563 03479 32243 12951
05992
000 000

E11/ E11a

6280 kHz, 16-05, 0820 UTC:

438/36 Attention
70290 39135 20033 90966 43659 65229 64580 95364 38839 72783
12328 65366 45585 16077 77448 57181 98418 90325 48387 52156
41620 19655 38054 41690 68616 17567 83423 61162 60955 64292
95260 73898 16965 07708 14455 42629
Attention, rpt msg, out

E25

6140 kHz, 08-05, 0933 UTC:	YL. 22 22 … 22 22 22 … 2 … 2 … 13 … 22 … 35 … 22 2 … 22 2 … 35 22 23 135 22 2 … 35 22 2 3 135 22 2 3 135 22 2 3 135 22 2 3 135 22 2 3
	MESSAGE MESSAGE MESSAGE
	REBEAT REBEAT REBEAT
	END OF MESSAGE
	END OF TRANSMISSION
9450 kHz, 12-05, 1115 UTC:	YL. 315 315 315 315 315 315 315 315 315 315 315 315 315 315 315
	MESSAGE MESSAGE MESSAGE
	4588 6370 7021 1287 2051 8874 5681 6356 2883 2742 6370 2364
	REBEAT REBEAT REBEAT
	4588 6370 7021 1287 2051 8874 5681 6356 2883 2742 6370 2364
	END OF MESSAGE
9450 kHz, 12-05, 1158 UTC:	Carrier, Spider solitaire sounds
9450 kHz, 12-05, 1201 UTC:	Music: Enta Omri. YL yells "8"
9450 kHz, 12-05, 1214 UTC:	Music: Enta Omri. YL. 8830 830 6
	MESSAGE MESSAGE MESSAGE.
	Ends with a short part of a sermon/speech. "jihad" was heard. Windows "click" sounds
6140 kHz, 14-05, 0830 UTC:	YL. 672 672 672 672 672 672 672 672 672 672 672 672 672 672 672
	MESSAGE MESSAGE MESSAGE
	2022 6021 7629 8209 3158 9096 4514 5329 2829 7739
	REBEAT REBEAT REBEAT
	2022 6021 7629 8209 3158 9096 45
	701 701 701 701 701 701 701 701 701 701
	MESSAGE MESSAGE MESSAGE
	2311 0120 2001 6632 3666 5532 2826 1946 0165 0120
	REBEAT REBEAT REBEAT
	2311 0120 2001 6632 3666 5532 2826 1946 0165 0120
	END OF MESSAGE
	END OF TRANSMISSION
6140 kHz, 14-05, 1034 UTC:	YL. 672 672 672 672 672 672 672 672 672 672 672 672 672 672 672
	MESSAGE MESSAGE MESSAGE
	2022 602- 7-29 8209 3158 9-96 4514 5329 2829 7739
	REBEAT REBEAT REBEAT
	2022 6021 7629 8209 3158 9096 451- 5329 2829 7739
	END OF MESSAGE
	Spider solitaire sounds.
6140 kHz, 16-04, 0838 UTC:	Epic movie soundtrack
6140 kHz, 16-05, 0912 UTC:	OM. 550 or 950 (14x)
	MESSAGE MESSAGE MESSAGE
	5051 1932 0380 8086 1701 2518 9817 9557 9241 5552 5639 1954 2550 9140 0380
	REBEAT REBEAT REBEAT
	5051 1932 0380 8086 1701 2518 9817 9557 9241 5552 5639 1954 2550 9140 0380
	END OF MESSAGE
	END OF TRANSMISSION
9450 kHz, 18-05, 1218 UTC:	YL. 830 7 830 7 830 7 830 7 830 7
	END OF MESSAGE
	END OF TRANSMISSION
6140 kHz, 19-05, 0859 UTC:	YL. 111 111 111 111 111 111 111 111 111 111 111 111 111 111
	MESSAGE MESSAGE MESSAGE
	1093 0150 6061 5543 2810 5852 8775 6180 8563 1031 3323 90531 1 (LONG DELAY) 1 (LONGER DELAY) 3323 9255 0534 1601 4387 0150
	REBEAT REBEAT REBEAT
	1093 0150 6061 5543 2810 5852 8775 6180 8563 1031 3323 9255 0534 1601 4387 0150

6140 kHz, 19-05, 0945 UTC:	Music: Enta Omri. YL. 350 35 350 350 350 350 350 350 350 350 350 350 350 350 350 350
	MESSAGE MESSAGE MESSAGE
	1945 441 (DELAY) 4440 5001 8183 2781 8200 2594 1040 4897 4440
	REBEAT REBEAT REBEAT
	1945 4440 5001 8183 2781 8200 2594 1044 (LONG DELAY) 1041 (DELAY) 252 (LONG DELAY)
	4897 4440
	END OF MESSAGE
	END OF TRANSMISSION
6140 kHz, 20-05, 0812 UTC:	YL. 185 185 185 185 185 185 185 185 185 185 185 185 185 185 185
	MESSAGE MESSAGE MESSAGE
	4909 2250 5602 7525 4342 2716 4295 7115
	REBEAT REBEAT REBEAT
	4909 2250 5602 7525 4342 2716 4295 7115
	END OF MESSAGE
	END OF TRANSMISSION
6140 kHz, 20-05, 0856 UTC:	YL. 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5 200 5
	200 5 200 5 200 5 200 5 200 5
	MESSAGE MESSAGE MESSAGE
	REBEAT REBEAT REBEAT
	END OF MESSAGE
	200 5 200 5 2
6140 kHz, 21-05, 0813 UTC:	YL. 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187
	23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23 187 23
	MESSAGE MESSAGE MESSAGE
	REBEAT REBEAT REBEAT
	END OF MESSAGE
6140 kHz, 27-05, 0717 UTC:	Epic movie music

S28 - The Buzzer

Mode: USB
Frequency: 4625 kHz

20-05, 1119 UTC:	MDZhB 24 317 TALOVKA 54 31 67 96 Priyom
20-05, 1121 UTC:	MDZhB 46 498 BALOBAN 92 20 23 53 Priyom
20-05, 1325 UTC:	MDZhB 22 186 SALMASh 41 32 04 18 ChALMA 72 02 88 56 Priyjom
20-05	MDZhB 09 ??6 KARTUZNYJ 71 48 85 00 Priyom
20-05	MDZhB 01 241 PASMYKA 41 36 63 31 Priyom
20-05	MDZhB 91 868 VALOHA 56 58 65 51 Priyom
20-05	MDZhB 91 756 BALOPTIKON 98 01 71 99 Priyom
20-05	MDZhB 00 289 MALOVETRIE 98 36 19 35 Priyom

V13 - New Star Broadcasting Station

星星廣播電台 Xīngxīng guǎngbò diàntái

Station #3: 7688 kHz, 0500 and 0600 UTC.

Station #4: 7654 kHz, 0700 and 0800 UTC en 7688 kHz, 1200 and 1300 UTC.

V26

9054 kHz, 01-05, 0945 UTC in progress.

VC03
Chinese Air Defense network

10978 kHz, 10-05, 1910 UTC: Chinese male voice with 4F group message.

MORSE STATIONS

MX
Russian Military beacons

Current cluster frequencies:	Cluster beacon slots:
3594, 4558, 5154, 7039, 8495, 10872, 13528, 16332, 20048 kHz	.7 "D", Sevastopol
	.8 "P", Kaliningrad
Other frequencies:	.9 "S", Severomorsk
L 5616.8, 6917.5, 8497.8 kHz	.0 "C", Moscow
V 3658, 4150, 4084, 5619.5 kHz	.1 "A", Astrakhan
R 5466 kHz (seldom reported these days)	.2 "F", Vladivostok
W, K, C, N, R various freqs (Air Force)	.3 "K", Petropavlovsk Kamchatskiy
	.4 "M", Magadan

Reported beacons and channel markers.

European Cluster Beacons: D, P, S, C, A, L
Asian Cluster Beacons: F, K, M
"F" was noted on 10309 kHz on 8 and 9 May.

Channel markers:
R – 4325.9
V – 4028, 4084, 4150, 7027.5

M18

4073 kHz, 02-05, 1514 UTC: 1918 1918 etc.
4073 kHz, 05-05, 2059 UTC: 0059 0059 etc.
4503 kHz, 20-05, 1753 UTC: 0411 0411 0411 etc.
4503 kHz, 20-05, 1926 UTC: 0543 0543 0543 etc.
4503 kHz, 22-05, 1209 UTC: 0419 0419 etc.
4503 kHz, 23-05, 2014 UTC: 0015 0015 0015 etc.
4503 kHz, 24-05, 1125 UTC: 1726 1727 1727 etc.

M21 + variants
Russian Air Defence Forces
Войска ПВО   Voyska PVO

Id "0" : 4987.5, 5752

M32
Russian/CIS/Ukrainian
Military CW Stations

10457 kHz, 01-05, 0852 UTC:

19125 ...... 45567 25523 93678 .2090 .62.8 09507 67854
57090 01010 AR

10457 kHz, 01-05, 1105 UTC:

.... DE IKHA QTC
414 13 1 1455 414 BT
ZUR 313 BT
10235 32487 85846 77324 50490 66134 75821 29476 52314
80109
01010 BT
OK
..... DE IKHA QTC
414 13 1 1455 414 BT
ZUR 313 BT
(Repeats msg – 1108z)

More logs can be found in the Logs Section.

10428 kHz, 09-05, 1402 UTC:

7TDZ DE 1XKN QSA ? K
QSA 3 K R K
E5WM DE 1XKN QSA ? K
QSA 3 K R K
8ZAM DE 1XKN QSA ? K
QSA 2 K R K
JS7O DE 1XKN QSA ? K
QSA 3 K R K
T5IN DE 1XKN QSA ? K
QSA 3 K SK
EK EEEE
156S DE 1XKN Q.. K
156S DE 1XKN QSA ? K
V4EN DE 1XKN QSA ? K
QSA 2 K R K
7GKW DE 1XKN QSA ? K
7GKW DE 1XKN QSA ? K
QSA 2 K R K
L24E DE 1XKN QSA ? K
.XVI DE 1XKN QSA ? K
QSA 2 K R K
MPEE DE 1XKN QSA ? K
MEEEE
MPEE DE 1XKN QSA ? K
ASPJ DE 1XKN QSA ? K
LA1N DE 1XKN QSA ? K

M32a
Russian Navy
Voyenno-Morskoy Flot Rossii

Jan Machalski forwarded the following information about the Russian navy ELF, SLF and VLF transmitters:

VLF stations:

   Arkhangelsk, Nizhnij Novgorod, Krasnodar, Khabarovsk (Russia); Vilejka (Belarus); Kara-Balta (Kyrgyzstan).

   Transmitter name and power (locations unknown, probably all in the above listed stations):
   Okean   4000 kW
   Titan   2000 kW

Prolom	2000 kW
?	1500 kW
Herkules	1000 kW
Rotor	500 kW
Ugor	20 kW, 8 mobile stations
Ruchnist; Draga - wide spectrum navy communications systems	

SLF (82 Hz) Varijatsija-1, 5000 kW = 2 x 2500 kW (also known as Zevs, near Murmansk)

ELF-SLF (3-300 Hz) new system, designed in 2006-2010 (replacement of Varijatsija-1 / Zevs)

Source: magazine "Электросвязь" №4, 2011, p. 31—32 http://www.computer-museum.ru/connect/rimr.htm

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8345 kHz, 01-05-2013

2158   VVV RCV DE RBES QSA? QTC
2159   RBES 588 87 2 0150 588 = FOR RMP = 11111 36273 87008 22294 (continues)

8345 kHz, 02-05-2013

0002   VVV RCV DE RKO81 QSA? QTC
0003   RKO81 455 20 2 0400 455 = FOR RJH45 RJD38 RJE73 = 02001 99363 10351 22200
1802   RCV DE RKO QSA? QTC
        RKO81 50? 20 2 2200 50? = FOR RJH45 RJD38 RJE73 = (2182) 99363 10351 222??(faded so not found)
1956   VVV RCV DE RBES QSA? QTC
1957   RBES 837 34 2 2355 837 = SML FOR RCV RMP = 21111 85680 49194 75779 (continues for 3 mins, 5FG)

8345 kHz, 03-05-2013

0003   VVV RCV DE RKO81 QSA? QTC
0004   RKO81 552 20 3 0400 552 = FOR RJH45 RJD38 RJE73 = 03001 99363 10351 22200
1802   VVV RCV DE RKO81 QSA? QTC
1803   RKO81 652 20 3 2200 652 = FOR RJH45 RJD38 RJE73 = 03181 99363 10351 22200
1840   RCV DE RIR96 QSA?
1841   RCV DE RIR96 QYT4
2140   RCV DE RIR96 QYT4 QSX 6912/10984

4527 kHz, 08-05:

1803   RFH46 DE RMW46 ZSA ? K
        RMW46 DE RFH46 ZSA ..
        RMW46 ZSA 4 R K
        RGR93 DE RMW46 ZSA ? K
        RMW46 ZAS 2 R K
        RGR94 DE RMW46 ZSA ? K
        RMW46ZA R K
        RGR95 DE RMW46 ZSA ? K
        RMW46 ZSA 2 R K
        RGR96 DE RMW46 ZSA k
        RMW46 DE RG96 ZSA 3 LSA Z K
        RMW46 A4RK
        RGR97 DE RMW46 ZSA ? K
        RMW46 DE RGR97 ZSA 3 ZSA ? K
        RMW46 ZSA 3 R K
        RGR98 DE RMW46 ZSA ? K
        RWM46 DE RGR98 ZSA 4 K
        RMW46 ZSA 4 R K
        RDQ81 DE RMA46 ZSA ? K
        RMW46 ZSA 3 R K

8345 kHz, 13-05-2013

    1836   **RIT DE RGR35 QYT4 QSA?**
    1840   **RGR35 OK QYT4 QSX 15468**
    1919   **RIT DE RGR35 QYT4 QSA?**
    2045   **Lots of test tones**
    2110   **VVV RIT DE RGR35 QSA?**
    2119   **RIT DE RGR35 QMO**
    2206   **VVV RIT DE RGR35 QSA?**
             RGR35 QYT4 QSX 5416 QSX 8440

8345 kHz, 16-05-2013

    0013   **VVV RCV DE RKO81 QSA? QTC**
    0015   **RKO81 389 20 16 0400 389 = FOR RJH45 RJD38 RJE73 = 16001 99358 10148 22200**
    0530   **VVV RIT DE RAL46 QSA? QTC**
    0531   **VVV RIT DE RAL46 QSA? QTC**
    0540   **VVV RMP DE RGR35 QSA?**
    0603   **RKO81 184 10 16 1000 184 = FOR RJH45 RJD38 RJE73 = 16061 99358 10148 22200**

12464 kHz, 19-05-2013

    1022   **RIW DE RGR35 OK QYT9 QCM**
    1332   **VVV RIW DE RGR35 QSA?**
    1337   **RIW DE RGR35 OK RGR35 QYT4**
    1345   **(unreadable frm RGR35) QSX 8330**
    1647   **RIW DE RGR35 QYT9 QSA?**
    2034   **VVV RIW DE RAL46 QSA?**
    2035   **RAL46 FOR RIT NR 454 QYV OK?**
    2036   **RAL46 OK AS3**
    2037   **RIW DE RAL46 OK QRU**
    2039   **RAL46 QRV**
    2043   **RAL46 NR 454 QYV FOR RIT OK?**
             OK QRU
    2054   **RIW DE RGR35 QYT9 QSX 8338 NO K**

8345 kHz, 25-05-2013

    0008   **RKO81 903 2 25 0400 903 = FOR RJH45 RJD38 RJE73 = 25001 99353 10195 22233**
    0107   **RCV DE RFX56 (QYTing but too weak to copy)**

12464 kHz, 25-05-2013

    1631   **VVV RCV DE RIR96 QSA?**
    1800   **VVV RCV DE RKO81 QSA? QTC**
    1801   **RKO81 608 20 25 2200 608 = FOR RJH45 RJD38 RJE73 = 25181 99347 10226 22232**

8345 kHz, 26-05-2013

    0002   **VVV RCV DE RKO81 QSA? QTC**
    0003   **RKO81 650 20 26 0400 650 = FOR RJH45 RJD38 RJE73 = 25002 99346 10237 22232**
    0008   **VVV RIT DE RJI63 QSA? QTC**
    0010   **RJI63 428 17 26 0405 = SML FOR RJH45 RJH74 = 26001 99694 10137 22253**
    1808   **VVV RIT DE RJI63 QSA? QTC**
    1811   **RJI63 281 17 26 2207 281 = 26181 99670 10078 22253**
    1813   **RJI63 281 17 26 2207 281 = SML FOR RJH45 RJH74 = 26181 99670 10078 22253**
    2028   **RCV DE RKO81**

M89
Chinese military

Callsigns and strings:

V 3A7D 3A7D 3A7D DE UMX1 UMX1
V 7NPE 7NPE 7NPE DE QV5B QV5B
V 8CPZ 8CPZ 8CPZ DE XW6W XW6W
V DKG6 DKG6 DKG6 DE 3A7D 3A7D
V FT7Y FT7Y FT7Y DE UE3G UE3G
V GKVZ GKVZ GKVZ DE Q7NW Q7NW

V H2FL H2FL H2FL DE DRV8 DRV8
V JF3M JF3M JF3M DE LG5P LG5P
V MW3D MW3D MW3D DE 2SLC 2SLC
V RXP7 RXP7 RXP7 DE CZT2 CZT2
V WITN WITN WITN DE GNXG GNXG
VVV Q2M Q2M Q2M DE NYZ NYZ

2JYT	4RF5	7D5G	BS7F	FT6D	JMNU	NN6A	VT4M
2UB8	55T4	7N3U	CYHR	GU7J	JT86	OKDZ	XLF9
3CB2	566D	8UHB	DLJ3	HT3CK	JT8B	TGHY	YHJ7
3EDF	5TGY	8USB	DLJ3	HV6T	L52M	TGSTY	YZZ9
3FE7	6S7F	AXN8	EWJ9	JKDZ	LKVG	TK2E	ZBQ1
3KMJ	7D4E	BGOV	FS97	JKTS	MNGY	TTTN	

8D7J DE J8NF K
8ESC DE 4MHG K
8HIC DE 4MSG K
8UTN DE ZBQ1 K
A6AG DE 3NSC K
AS5T DE 4MHG

DCS6 DE 3NSC K
DL8A DE J8NF K
DR4M DE DCS6
E3SB DE Y3AK K
F4CY DE Y3AK K
FA4K DE Y3AK K

FVQX DE 4MHG K
GW7B DE 4MHG K
ISMN DE 4MHG K
JNC9 DE Y3AK K
LKY5 DE CT5M
SQTB DE 4MHG K

TK9U DE 3NSC K
WK8B DE Y3AK K
XJ6S DE U66E K

Messages:

All transcripts were jotted down by our M89 champ Jean-Paul. When he sent yet another bunch of transcripts he wrote "What a fantastic day for M89 monitoring!!!" and I fully agree. JP copied the network during an exercise with lots of CW traffic. This seems to be an annual exercise.

Note: //A = station A   //B = station B (simplex traffic

7607 kHz, 01-05, 1627 UTC:

VV VVV HR SVC GA NR 17 0030 RMKS 5237 TO 5677/5299 B*
CO EEEE =
SVC QRW 5297 QRW L18 5677 0200 COMM 6327 AR
AGN
NR 17 0030 RMKS 5237 TO 5677/5297 =
SVC QRW 5297 QRW L18 5677 EEEE =
SVC QRW 5297 QRW L18 5677 0200 COMM 6327 AR
QSL? HR WK NR 18

3682 kHz, 03-05, 1108 UTC:

5D4A D57A A6N3 N34A D3.A U.N5 III = U4N. 6TA3 (Cont'd)
AR
H0555 Q..EEE 0550. 54 EEEE
05.5 5055 0550..
5050 ... 555 05 055 (Silent - 1115z)

5600 kHz, 03-05, 1125 UTC:

= 5U3N 45A. 7T5A 3N45 DU7T 5AU3 (Cont'd)

3330 kHz, 07-05, 1425 UTC:

GA CQ63 RMKS 8504 TO 5973 UGT COMM ARS =
84364/5973/2300/237NR/8504 =
84364/5973/2300/237NR/8504 AR =
84364/5973/2300/237NR/8504 AR AR AR AR
(Return to roundslip – 1428z)

5230 kHz, 02-05, 1518 UTC:

D444 7777 N3NN N444 N5NN D333 D7DD 7555 A666 TDDD U44. TTTN 4555 AAA3 UAAA NNNU 6666 TTTU 4AAA 444T 3666 3AAA 34.. 66D6 NNUN U555 AAAD TTTN 7DDD .A? .DDD 4555 DD5D UUUU D444 A7AA UAUU NDDD 4555 AAAA 3UUU 4T44 ? 4T44 3A33 A777 A333 NNN3 NANN 333A ANU3 II I = =
DNDD 6656 .U3 5T53 TTDT UAUU UUU.. 66N6 555. UAUU N5NN N444 3U.3 N..NN DDTN DDD4 AUUU 3533 NDNN D.D4 A3AA 4N44 TTTT UAAA 4464 AR
QSL ? HR WK NR 230

(Looking at the above message, there appears to be a lot of repeated cut numbers. Normally quite randomized, but this message appears to not be)

5336 kHz, 02-05, 1542 UTC:

DT66 7U3A TDDD 4UD4 NNDN 4UN5 DD5U U47D 5AUU (Cont'd)
III = 7N6N 3AUN 4UN3 5364 NNAT 6U4T (Cont'd)
III = ATTN 4U55 6N4A A644 46AN U4UA N6A7 7UT4 (Cont'd)
III = D7N. A7D4 D7D6 3N3A AND6 AD3N (Cont'd)
... FM 76105 CK 45363 3U64 DN47 N (Cont'd)
III = (Silent - 1613z)

6468 kHz, 07-05, 1104 UTC:

T734 D..U NTU4 33NU 65NT 6634 5 EEE 6D7A DTA6 7UUN (Cont'd)
III III NN //A
QSL N QSL 1730 K//B
QSL 1856 K AKKK (Silent - 1112z)

5555 kHz, 01-05, 1436 UTC:

5A3D N3T7 D4AU NAAD U7A55 EE
MSG NR 78 CK 78 78 78 30 E
VV MSG NR 78 CK 78 78 78 30 E = 67 E
VV MSG NR 89 CK 89 89 89 30 E E = E E E E
VV MSG NR 09 CK 999 05010300 300900010054 FM
E E E E EE E E E EA E = 4UNE
VVV MSG NR 89 CK 89 89 89 30
E = 4UN5 57E E E E = 4UN5 573
E = EE E
VV MSG NR 090 CK 05 4. E VV MSG NR 09 CK 05 05 04 30
E = 4UN5 =
4UN5 5734 5A3D N3T7 D4AU NAAD U7A5 3N5A633A 6T4N (Cont'd)
FM CON 6AA34 74TT 6A44 AS
FM BAV NND3 4AN3 T45NN 6D6A NN73 65A6 4T E E
VV MSG NR 98 CK 89 89 89 3033 =
4UN5 5734 5A3D N3T7 D4AU NAAD U7A5 3N5A 633A 6T4T 35N7 E
VV MSG NR 89 CK 89 89 89 0 E
VV MSG NR 89 CK 89 89 89 0 E
E = 4U E E =
WMLX RNGZ TFDC RDYL SLPI NVGO SPDN GNDB GX7R QWGE PLZR ANDM
EF34 OK TY L..D ZF4C AWMA E
4295 8730 1638 9607 1 =
4295 8730 1638 9607 1425 91 E E (Long zeros)
E E E E E =
4UN5 5734 5A3D N. (Silent - 1449z)

(Very interesting traffic! I'm just guessing, but I don't believe the operator
realized that he was live on the air. Appears to be some sort of
equipment testing with same groups being sent. What is also interesting is
that traffic was sent in 3 different formats – 4 figure cut numbers, 4
letters and 4 number groups. Is this the break cryptographers are looking
for??? - JPL)

VV 7G NA
7G NR G NR 1 CK A
MSG NR 1 CK 1/CKJ8 (Silent - 1457z)

6312 kHz, 07-05, 0311 UTC:

R CK 145 K
R QSL 1103 K (Both stations on same freq)
R R NR 539 CK 1.04
R GA = = UNN = = TUT = = =
DCY8
R QSL 1005 K
R R F GA = =
NR NR 149 CK .1206 K
R GE Q GA = = =
5F.6QK
R R QSL 1100 K
R R R CQ ?
R GA R R AH
DE 3FE7 K DE 3FE7 K
RR BGOV QSA 2 . K
VV DE . . R R HV6T QSA 2 ? R QSA 2 K R R
VV VV VV CQ ?
CQ NR 540 CK 98 CLS 2405 07 .2115 K
R GA R R = =
TATN NNNU TT6N UU4N 53D4 AU4A D373 7TTT 6U34 T47A
7T.5 D64U .6DTU A7N6 (Cont'd) Handsent – very slow
AR K R QSL 0122 K R R SK
.. 1 K
R R AS = TATN AR
R DE 4... FE7 QSL .100
RR K R R R SK R R 5.Q AR K VV
CQ NR 54O CK 98 CLS 2405 .7020.1115 K
= = TATN AR K
R VA VV TMT EEEE
SHSH5 46334 56444.46334565EEEEE (Silent - 0328z)

3456 kHz, 02-05, 1630 UTC:

RMKS = 7595 TO 706./70.4...95 AR
MSG NR 154/CCK CK 1.9 66 0503 0025 RM K
RMKS R . =
7595 TO 7063/.004 TO 7595 AR K
R E = = =
6546 A46N 7.3 7..3 (Cont'd)
AR AR
1P94W = = ..3. NU3 AR
.W = = 64.7 6... AR
R RHR NR 113 ? K
R NIL SK
R GB

Note from JPL: Monitoring M89 can get quite interesting at times. Today was
one of those days. Imagine my surprise when I noticed a signal on the
waterfall of the Siberian SDR Remote Tuner indicating the presence of an
M89 transmission on 4325. All of a sudden another signal appears on the
waterfall on 4388, which turned out to be another M89 station. Two for the
price of one... But wait, it gets better. When I notice a 3rd signal appear on
the waterfall on 4357. I just had to check it out and you guessed it, I now I
have a total of three M89 transmissions going on at the same time in close
proximity. In the end, I concentrated on the 4388 transmission as I managed
to get a message header. I was so excited that I forgot to do a Print Screen
showing all three stations active at the same time. Here are the three logs:

4325 kHz, 05-05, 1339 UTC:

= T =
D4N3 73AD TAU3 67TA N637 4D5U UT45 (Cont'd – 1340z)
(Still sending tfc – 1404z)

1405 4388 kHz, 05-05, 1341 UTC:

R MSG GA
R MSG NR 38 CK 91 .2 0505 2120 =
RMKS 6323 TO 6N EEEE E E
RMKS E E EEEEE
RMS K
9 E E R = U647 U45T TA77 U5A4 7NN3 37UT 7DAN UUL3 T3N5 TT33 3T77
63N.
67UN 5NDU 775N 4764 U64A TT7N T646 7NT. (Cont'd)
.. 75NT 75NT AR K
R R C.F4 K (Possibly a callsign)
RPT K AS AS
8G ... K GA K
..21.. SK (Probably QSL for msg)
CRF. GA K (Possibly a callsign)
RPT ... K K
RPT PBL K R RPT PBL K GA K

4357 kHz, 05-05, 1347 UTC:

3N3N D64 DT77A 3N44 65T3 T37T T3N5 TT3. D76A U74U 45UD NA.D 3N3T
(Cont'd)
R GA

6774 kHz, 03-05, 1031 UTC:

UU66 5T47 T65N T547 T75T 67U4 6NUD (Cont'dt) K
7757 ANU.3/46/463A3ADDN.7550 7550 56.. ..
5757 ANU.3/463..ADDN. 7550 5646 34D7 AR. VV DD..54UAN N4..
5 75D4 .3568 5DE

5319 kHz, 07-05, 1122 UTC:

354. 34.T 56A6 ATTN NU4A 65.4 (Cont'd)
AR K
R = 5U66 =
NR OK
(Switched to voice – 1125z)

4047 kHz, 07-05, 1137 UTC:

T365 DN47 T53N DA6U T4UD NA53 (Cont'd)
III = 76T5 AS
= ..3DAN U4.T 356A NU.. (Cont'd)

4388 kHz, 07-05, 1458 UTC:

3TNU A..U 6U5U AAD5 46N5 TN55 (Cont'd)
AR
... 9 K
R ..TO 8W = TA33U 56 AR K
R EWJ9 K
R AS AS XLF9 K
R GA K
RPT EEE RPT 08W K
RPT 60W K
R RPT 63W TO 68W K
R RPT 72W TO 80W K
R RPT 72W TO 79W K
R QSL 2309 K R SK
EWJ9 GA K R GA K
RPT 16W K
RPT 21W K
RPT 29W K
RPT 34W K
R AS AS
RPT 40W K
R QSL 2315 K
R SK (Silent - 1516z)

4140 kHz, 12-05, 1558 UTC:

D4UD D3N6 NT.U UD. (Cont'd) K
9.W =
37TD P EEEE BT 37TD U EEE W7TD M EEEEEEAR K (
R V EEE R 2 AR 0. = EEEE = TDN AR K
R 2P 08W BT 4TDN AR K
NR R R
MSG NR 19 CK 11. 95 0513 0001 RMKS 5997 TO 5415 K
R R =
B 5U7 7U34 T54D U6DN 47DT 7TUN U6.. (Cont'd)
K R R R R
Switched to voice – 1610z

6773//8040 kHz, 15-05, 1125 UTC:

310/1656/1636/05/.5/19../660/A/45/49 AR
UGT COMM = 310/1656/1636/05/15/1955/660/A/45/49 AR
UGT COMM = 310/1656/1636/05/15/1955/660/A/45/49 AR
1006 1306 .... 1930. RMKS 1636 . (Copied on 8040, but very weak)
(In tfc on 6773) 67DA 74UT ND77 TDTU A5UD 7AT7 (Cont'd)
AR
QTB /821 1006 1.06 MSG NR 5.57 CK .6 42 0215 1930 RMKS 1.36 TO 1... 1006 1306 =
67DA 74UT ND77 TDTU A5UD 7AT7 N74N .AAT NNNN T.A D.7D NA65 3.77 6UTD (Cont'd)
AR
5340 kHz, 15-05, 1825 UTC:

A57N N4DU 7ADT 35U4 57T3 TAUN N4U3 (Cont'd)
AR AR K K
OK GA GA GA GA GA
RPT 28P K
OK RPT 29W
RPT 29W
OK RPT 57W
RPT 57W K
OK QSL 230 QSL 023A N K
AS P USP (Switched to voice – 1833Z)

7523 kHz, 07-05, 1037 UTC. //A = station A, //B = station B

7U44 4NN5 436T AD7U N4D7 3U6U 8UU4 A5N3 73AU (Cont'd)
III //A   GA GA //B   (Both stations on same frequency)
R 2P 1W =
N6A3 DUA3 D63U D7N6 3D5T U545 7TT7 65TN //A (Cont'd)
III//A
RPT OI 3W K//B
83W = UU56//A
R RPT 73W K//B
R R G 73 RRR 73W = NN76//A
R GA GA//B
R 3P 1W =
A674 N636 //A (Cont'd)
AR//A
R AS AS VV TC K //B
PSE PSE R NR 2003 CK 205 74 0507 1800 //A
R GA//B
050. 8435 K   OK OK//A
HR NR 09
OK
QSL .. QSL ..//A
QSL 1.01 K R QSL 1901 //B
R HR WK NR ISCK 1125 K K//A
HR NR 1125 R //B
R SK //A
R SK//B (Silent - 1100z)

4394 kHz, 07-05, 1439 UTC:

R GA =
A3NU NT. U3AU A356 NNUT (Cont'd)
AR VV
DCS6 DE 3NSC K
6OZQS. NR 52 K
VV A6AG DE 3NSC K
6OZ QSY NR 42 K
VV TK9U DE 3NSC K
R GA GA
... 52W K
R RPT 2P 13W TO 14W K
R RPT 91 EEE RPT 91 EEEE RPT 2P 14W K (Silent)

3330 kHz, 08-05, 1427 UTC: 2SLC in tfc

29 UGT COMM =
84364/8729/2300/237NR/8504 AR =
843054/8729/2300/237NR/8504 AR =
84384/8729/2300/237NR/8504 AR AR

5588 kHz, 09-05, 1100 UTC:

TDA5 N36T T6A3 NDUT 36AD 3A6D (Cont'd)
III = 4DNN
MSG NR 036 CK 301 44 0509 1900 =
377D .T7U 745T T4T7 NADA AN6U 376T U56D TT7. TTT3 TDA5 (Cont'd)
III = 4DNN
(Message checked with previous messages sent and has not been previously sent)
QSY QSY QSY (1125z. Changed from day to night frequency of 3300 – Return to roundslip)

6829 kHz, 09-05, 1033 UTC:

337N 3UN5 5T4U .... K
R 09W TO 022 = DNA. K
... AR
23W TO 24W = U.5. N7 AR K
R
? 88W TO 89W = 5..N 44D5 AR K
R GA K R GA

3276 kHz, 15-05, 1836 UTC:

MSG NR 364 CK 91 26 0516 0239 K
R =
4N3D 433N 756N ADU4 N54D T.T3 UA66 75TT TUUN TAN6 D4UD NTAA
(Cont'd)
AR K
R AS
R EEEE VV RPT 21W = 76U7 76U7 AR K
R RPT 89W = NUT3 NUT3 AR K
R LSB K
GA K GA K

10180 kHz, 17-05, 0206 UTC:

QSY TO 07 K K 7 K
UUNKUMUMU.. SR 7..W AU
7G NR 66/CCK CK ..30 0517 0945
R EEEEE R M 7 7917 K 6098 K
K K K U QSY .
U QSY EEEEE U QSY 19 K
U QSY TO 11 EEEEE U QSY O19 K K K K
K K U QSY TO 19 K K K K K K K K K M K K K K K K K
7G NR 65/CCK CK 30 30 0517 0945 .2791 7000 6098 K K
= = 3M EEE =
3NT3 .4DU 6U64 4T74 EEE (Cont'd)

10420 kHz, 17-05, 0227 UTC:

MSG NR 3149 CK 79 58 0517 0950 =
K R R = = =
UDA3 3T4D U5TN DN73 47ND 7A64 T5D3 D6UA 543N 3AU7
4N37 3ATD 3.AD 7NTD 6NAD N3UT N354 UN35 UAT3 U563
AD7N N3AD U3T7 5NA6 N4A. 6A35 7U6T 64U3 T43N A57D
TD7U 4NAD 67U4 53TA 6N43 A6N7 5TD3 AN7U AND7 U54A
NU34 743N 4T75 67U3 7D54 467U TND4 TDN7 AN36 DUAN
ND3U ATUD 56TA T76A D475 3UD5 5473 ND65 3D74 5NU3
643U 3AU4 4AN7 TA54 U67D 3UD6 6ND4 T4A3 AUNT TNU6
5674 D4NT 63U5 D7TN 3NT3 743U UTAD 4N67 UN45 AR K
R = =
UDA3 3T4D U5TN DN73 47ND 7A64 T5D3 D6UA 543N 3AU7
4N37 3ATD 3TAD 7NTD 6NAD N3UT N354 UN35 UAT3 U563
AD7N N3AD U3T7 5NA6 N4AD .A3. 7U6T 64U3 T43N A57D AR K
R R R R OK K R SK SK SK

11231 kHz, 17-05, 0243 UTC:

A7N5 743T 5D74 6A5T (Cont'd)
AR = ... K
NR 33 .. 43 K
R 75W = A7N5 A7NR K
NR 50.. 53D .. K
OK ...
GA

4225//5500 kHz, 13-05, 1010 UTC: QVB5 in traffic

8 AR
VV TC6 = 1929/07 EEEE TC6
VV TC6 = = 1924/0900/56/8731 AR
TC7 VVV TC7 = = 1638/1440/96/8738 AR
Return to round slip 1012z

11244 kHz, 17-05, 0247 UTC:

MSG NR 2239 CK 75 76 0517 1040 RMKS 6882 8616 8828 67 K
OK = = =
A5D4 TUN7 D53N TAU5 .D3 3T.DA6NU 6DAN U5T3 4U54 (Cont'd)
DK 110 K
OK MSG NR 2241 CK 75 76 0571 040 EEEE
MSG NR 2241 CK 75 76 0517 1040 RMKS 6882 8616882867 K
= =
AU47 DU47 D4AT 45A. (Cont'd)
AR K
OK U GA

5558 kHz, 15-05, 0954 UTC:

VVV GA CQ63RORE RO AS
700 ? 708400 MD764 500 14 5484/850A? 8504 EEE 2A K PARES =
84364/1930/6100 ER NR. 7084 AR =
8 = 83363/1930/610/NR/7084 AR =
83364/1930/610NR/7084 AR AR (Horrible CW operator!)

5555 kHz, 14-05, 1345 UTC:

MSG NR 7 CK ..3. 4 212. K
22724 ..2..
MSG NR .87. .05 042350 RMKS .82....
K = = (Mostly unreadable – 1349z)

10549 kHz, 15-05, 1811 UTC:

536T N35T T473 AUNT (Cont'd)
AR (1813z)
R GA GA GA GA
NR QSL 0213 K
NR . K (Silent – 1816z)

6848 kHz, 16-05, 2200 UTC:

3773 6.75 TD3T ..N6 AU37 63U6 A6TA T554 (Cont'd)
III = U3T6 4U3A A77D 6545 6AAT UTT6 (Cont'd)
AR AR K
R = DDNU DDNU AR K
R R = 7DN7 7DN7 AR K
R = NA55 NA55 AR K
R = 7U4D 7U4D AR
R RPT K
R = 7655 7655 AR
R RPT K
R = = UDTT UDTT AR K
R = A6TA A6TA AR K
R = 7445 7455 AR
R = 6T7N UT4TU. TDNN 377. 6575 TD3. N3N6 AU37 63U6 AR K
R = 3A3N 3A3N AR K
R OK SK (Silent – 2208z)

11203 kHz, 17-05, 0251 UTC:

NR 1539 CK 71 80 0517 1040 RMKS 6882 868 68072 865 K
A76D 5AUD 4T6D TNA7 3TU7 U35N 7NAT (Cont'd)
AR
OK U 7ORA K
OK GA
QSL 1124 K
QSL 1124 K
KP KP
.... DE VT4M K
OK QSA 2 K QSA 2 K
KP KP
VA VA

10268 kHz, 17-05, 1019 UTC:

DNA6 6A54 36.4 3ADT (Cont'd)
AR K
R R OK OK
Switched to voic e– 1023z

7336 kHz, 17-05, 1035 UTC:

67.D UA65 D6.7 NA.7 36U. (Cont'd)
AR QSL ? K
R RPT K
R OK
R SK

8069 kHz, 17-05, 1106 UTC:

R MKS 4521 614 TO .521617 K K
=
QSBDN2 Q EEEE =
QSB/2 AR K K
R U E GA EEE U E GA K K K K
R QSL 1909 K K (Silent - 1110z)

8279 kHz, 17-05, 1112 UTC:

15341 80 K K K
RA =
RMKS
MSG NR 2262 CK 75 94 0517 =
UAT. RKS 1A3E E
MSG NR 2262 CK 75 94 =
T5ATD UATTRMKS 153418. MO1534180 K K
MSG NR 2262 CK 75 94 0517 2100 RMKS 153418 1E
MSG E MSG E MSG METE MSG NR
MSG NR 2262 CK 75 94 0517 210 RMKS 153.1810O153.18. K K

8174 kHz, 17-05, 1212 UTC:

FS97 (x3) VV
EE NR 156./EX .2 = AY52/CR64/EG.7 AR
NR 1562/EX 2012 = AY52/CR64/EEEE=
AY52/...EG07 AR
OLD QSY O.D
VV (Silent - 1213z)

5424 kHz, 17-05, 1444 UTC:

RGT9 FLW FLW3 RGT9 K
OK OK
MSG NR 11592 CK 79 71 0517 2240 = RMKS 1542.25 TO 1542523 K = = = =
3DUA TDUA UNA6 DU.4 DATU AT46 6T3A (Cont'd)
AR
RPT RPT
ARGA R G R
R GA
NR 11593 CK 79 71 0517 2240 = RMKS 1542525 TO 1542523 K = = =
3A56 TU74 N3A6 A675 U4T7 356T (Cont'd)
AR AR
MSG MSG MSG NR MSG
MSG NR 1594 CK 79 71 0517 2240 = RMKS 1542525 TO 1542523 K = = =
3U6.5AD6 63NA U47. (Cont'd)
AR AR K
R R QSL 2315 K (Silent - 1511z)

5409 kHz, 17-05, 1518 UTC:

MSG NR3330 CK 60 87 0517 2240 AR K
R R MSG NR 3330 CK 60 87 0517 2140 = K = =
A657 .U54 357T 4TD3 6UT4 (Cont'd)

4031 kHz, 17-05, 1629 UTC:

MSG NR 274 CK 91 10 0518 0030 RMKS 1474 TO W..14 1744 1784 K
R = =
NN36 7TDA NTT7 .DUN UU7N T3T3 NDT. (Cont'd)
73AD AR
M.QR DE Z..* K
RPT65W = .4 6A45 AR K
RPT 7.W = 7A5T 7A5T AR K
RPT K
R HP NCA AR K
R R
.7GB DE ZBQ1 K
KKM.
R
8UTN DE ZBQ1 K
R LSB K
(Switched to voice – 1637z)

7132 kHz, 17-05, 1045 UTC:

VVV VVV VVV
MSG NR ..
CK VVV MSG NR DIA CK IA AR I. GA =
TK
MSG NR DIA CK IA ARE
MSG NR DIA CK IA WREE GA =
MSG NR
MSG NR 4170 CK 61 1...
4UA3 4AU5 7A3D 57.U (Cont'd)
AR

6825 kHz, 17-05, 1053 UTC:

AR
??? A5T4 K
VV 8DJ EEE VV
8D7J DE J8NF K
R 07W =
ANAU ANAU AR K
BOZ QSY NR 52 K
VV
DL8A DE J8NF K
R . WTO 17W = 73N4 .3N4 K
R 57W .. = TTT.7 N33T AR K
FM K IEE EEE
R 66W EEEE 66W = UU36 UU36 AR K
R GA K
QSL 1902 K
LNDW K K (Silent - 1102z)

3596 kHz, 17-05, 1127 UTC:

A4U4 7453 AT.6 7NUD TA64 NADU 73DD (Cont'd)
AR AR
HT3C K
AS
JB5 ..
...C K
7D5 EEEE
7D5G K
R = ND7D ND7D K
RPT K
R R = .D7D N.I7D K K
4.3S A633 K
R = .3U. ? .. K
R R UT4TA UT4. DDB.DD.. K
XJ6S DE U66E K K (Unsure of callsigns)
NR 7DNU 7DNU K K
R TU 7AT. A K
RPT K
R R

8178 kHz, 17-05, 1210 UTC:

/PBR3 AR
NR 152 1/ = .012 = C./045/PBL. AR
NR 1521/EX 2012 C. /046E. AR
QS. OL. OLD QW... BVV (Silent - 1211z)

4394 kHz, 17-05, 1714 UTC:

RMKS 1542524 TO 1542523 K = =
UA3. T57A 7N63 T47N 3NU4 5DNT (Cont'd)
OK GA GA

4104 kHz, 17-05, 1910 UTC:

VV K
RPT 21W
RPT 68W (19
QSL 08 EEEE QSL 0310 K SK

4373 kHz, 17-05, 1700 UTC:

010. RMKS 1534727 TO 1534725 K K K K
= =
34T. D..U (Cont'd)
OK OK GA GA U GA U EE GA
QSL 0122 K K
NR C NR 479 NR 4 C NR 4279 ..... K K
= = AC/6D AC/BD K K
= AC/6DAC/BD K K
= = = AC/6DAC/BD K K K K K
OK OK (Silent – 1711z)

4889 kHz, 17-05, 1923 UTC:

III = = N.5D T3TD D4UT U65A A76N 6 ? A76N ADT6 (Cont'd)
AR AR K K
= A437 A437 AR
OK SK SK
R R R R GA
MSG NR 99 CK 111 38 0518 0324 RMKS 2304 TO 2494 K
GA =
NN6A A.UT 75N 4NT5 (Cont'd)
A7A6 T44T TA37 6646 AR K
SK

5497 kHz, 17-05, 1450 UTC.
Believe this to be the other end of station on 5424 kHz

.. 2249 = RMKS 542523 .. 42525
MSG NR 6246 CK .6 7. 0517 2249 = UTT K
= = =
UTN3 TN56 64AU (Cont'd)
AR AR K
22. = K
MSG NR 6247 CK 56 7. 0517 2040 =
UT3T T6U3 D4T4 (Cont'd)
AR AR K
NR QSL 2300
MSG NR 6248 CK .6 71 0517 2240 = K K
MSG NR 6248 CK 66 71 0517 2240 =
UG6D 4DT3 UD.. (Cont'd)
AR AR K

5410 kHz, 17-05, 1523 UTC:

GU7J GU7J
QSY 201 QSY QSY 01 QSY 02 QSY 02
= = K
II FM = KIS MFM II M MFM II MM MFM II
MMM K FM II MMM K
SFM II MMM KS
MSG NR
MSG NR 01 CK 0RR V V = DR4M DE DE D.IT DCS. R GA GA GA
RP QSL NIL 224. 2246 = = =
D.U T7DU 4A53 TUA5 7UTD TDN6 (Con't)
MSG NR 01 CK 0RRVV (Silent - 1526z)

10827 kHz, 18-05, 0821 UTC:

1621 = SC 1/C6 AR
E NR 1702/EX 1621 = SC1/C6 AR
QSY 17 QSY 17 VVV (Silent – 0822z)

11150 kHz, 18-05, 0825 UTC:

22 = UF1/B2 AR
E NR 1458/EX1622 = UF1/B2 AR
E NR 1458/EX1622 = UF1/B2 AR
QSY NR 19 QSY NR 19 VV

4285 kHz, 17-05, 1640 UTC:

DE Y3AK K
GA
UVVV
WK8B DE Y3AK K
QSA 2
UVV
EE NR 1618D EEEE/EX TIME TT43 = YA/H7 AR
EE NR 1618/EX TIME 0043 = YA/.7 AR
EE NR 1618/EX TIME 0043 = YA/H7 AR
(The 2 letters EE sent before the message are a Barred E)
VV
FA4K DE Y3AK K K
OK VVV
E3SB DE Y3AK K K
OK OK VVV
JNC. DE Y3AK K K
OK OK VVV
F4CY DE Y3AK K K
MK OK SS I M EEE VVV
WKOEB DE Y3AK K K
QSL 0.. VVV
WK8B DE Y3AK K K
MSG GA MSG A GA GA MSG GA
MSG NR .6199 CK
NR 1619 CK 71 1. RMKS CQ = = B T
AU53 6NAD TU3N 5436 7AU5 U54A NA6T DT7N 7NA4 (Cont'd)
AR U VV
F4.. DE Y3AK K K
NP
QSL ? K K QSA ? K K QSL ? K
OK OK VVV
E3SB DE Y3AK K K
OK OK VVV
JNC9 DE Y3AK K K
OK OK VVV
F4CY DE Y3AK K K
OK OK STVV
WK8B DE Y3AK K K
WK8B DE Y3AK K K (Silent – 1653Z)

2148 7753 kHz, 17-05, 2143 UTC:

64 96 0518 05 EEE
HR MSG NR 6394 = 96 0518 8500 K
= =
.3TU5 7T3. DT43 T46U (Cont'd)
(Cranked up speed to about 50WPM)
AR (Silent - 2145z)

10239 kHz, 18-02, 0812 UTC:

TK2E TK2E TK2E
HFF NR 1700/EX1615 = S3/YJ9 AR
NR 1700/EX1615 = S3/YJ9 AR
NR 1700/EX1615 = S3/YJ9 AR
QSY 19 NR QSY 19 NR
VVV (Silent - 0814z)

11135 kHz, 18-05, 1315 UTC:

R QSL 2115 QSL WC NR P K//A
R WK NR 10 K//B
R NIL SK//A

3777 kHz, 19-05, 1455 UTC:

AR K
R RPT 37W 56AU 56AU K
R RPT 38 K EEEE RPT 38W N54A NN4A K
R RPT 77W 34DT 34DA K K
EEE R R (Silent - 1458z)

11155 kHz, 18-05, 0827 UTC: CT5M wkg various stations

L52M L52M L52M
E NR 1459/Ex1625 = TS2/A8 AR
E NR 1459/EX1625 = TS2/A8 AR
E NR 1459/EX1625 = TS2/A8 AR
SK SK
LKY5 LKY5 LKY5 LKY5 DE CT5M
3CB2 K
R QSA 2 ASVV
DLJ3 K
R QSA 2 AS VV
7D4E K
R QSA 2 AS VV
2UB8 K
R QSA 2 AS VV
BS7F K
R QSA 2 AS VV
JT8B K
R QSA 2 AS VV
3KMJ K
R QSA 2 AS
LKVG AR VV
3CB2 K
R OK AS VV
DLJ3 K
R OK AS VV
7D4E K
R OK AS V
2UB8 K
R OK AS VV
6S7F K
R OK AS VV
JT86 K
R OK AS VV
3KMJ K
R OK AS
HR E GA CYHR WK
NR 45193774 45193774 E
NR 1460/EX1640 EEEE RMKS CQ = J6/N5 AR
E NR 1460/EX1640 ……
E nr 1460/EX1640 RMKS CQ = J./N. AR
VV
3CB2 K
R OK AS VV
DLJ3 K
R OK AS VV
7D4. K
R OK AS VV
6S7F K
R OK AS VV
JT86 K
R OK AS VV
3KMJ K
R OK HR CQ MSG GA CY
MSG NR 1461 CK 71 75 0518 1630 RMKS CQ =
A5U7 5T.. (Cont'd)
AR
3CB2 K
R OK AS VV
DLJ3 K
R OK AS VV
7D4E K
NO K AS VV
2U68 K
R OK AS VV
6S7F K
R OK AS VV
JT86 K
R OK AS VV
3KMJ K
R OK AS AS
ALL STN ALL STN HR NIL SK SK
203 203

9055 kHz, 19-05, 1215 JUTC:

446 34A NUD 77. 437TT577 3N44 5 AA.
3U73 5AU4 T353 4AA3 3T5N 3D4A5 44 63..
35AU 4T34 34AA 44T6 336N 3U77 A437
(Cont'd - hand sent - running letters together)
AR AR (Silent - 1218z)

11356 kHz, 18-05, 0904 UTC:

R GA
R RPT 10W
R RPT 75 K
OKQSL 1714 QSL 1714 K
AS
MSG CY
MSG NR 2706 CK 75 29 0518 1700 RMKS Z257 TO 254
R =
703 3714 6150 7DN5 6NAD 5643 (Cont'd)
RPT CY RPT CY
MSG NR 2706 CK 75 34 0518 1700 RMKS Z257 TO 7254 K
R =
A7N5 D63T U63T 3U5A D735 D5T3 754D (Cont'd)
AR K
RPT
R RPT 10W = 1423 AR = 1423 AR K
QSL 1721K
GA
RPT NR
GA
RPT 10W
QSL 1726 QSL 1726 K
R
MSG NR 2708 CK 75 14 0518 170
0 RMKS Z257 TO Z253K
= A3DT U7D4 A56T (Cont'd)

11163 kHz, 18-05, 1306 UTC:

NR 6253 CK 69 17 0518 0900
MSG NR 6253 CK 69 17 0518 0900 =
557A 336N N.DU 337N 3TTA NT44 44ND DNN5 (Cont'd)
= 55T4 K
= 55T4 K
= 566D K
= 566D K
= TTTN K
= NN6A K
= 4655 K
= 4677 K
R GT
RPT TZS QSD ?
K GM GA GA GA GA

5784 kHz, 20-05, 1705 UTC:

EE NR 4419/EX .103 = A.E9/=L./CLF9 AR K
R K
EE NR 4419/EX 0103 = AAE9/=L9 AR K (Silent - 1707z)

5696 kHz, 20-05, 1713 UTC:

MSG NR 3346 CK 79 48 0521 0100 ..KS 5763029 TO 5773.20 K = =
UDA3 4D75 N3TU DU7A D547 AD73 (Cont'd)
AR (Silent - 1718z)

5656 kHz, 20-05, 1719 UTC:

HR MSG GA
NR 736. CK 75 8. 0521 0100 RMKS L930 TO L9Y7 =
6AD. UVT MU73T AT76 5AN3 5... (Cont'd - 1720z)

11318 kHz, 20-05, 1018 UTC:

U7D6 N3D4 67U5 UAN4 (Cont'd)
AR K
OK OK (Silent - 1022z)

8070 kHz, 20-05, 1027 UTC:

AR
R 23W = T46U T46U K
60W = 63U4 63U4 K
R =
OK QSL 0833 K
OK

6886 kHz, 20-05, 1057 UTC:

QSL 1842 QSL 1842 K K K
QSA 2 UD. QS.... QSL ...
QSL 1842 K K   QSL 1842 K K
MSG NR 22. CK 61 ..1840 =
MSG NR .2. CK . 52.. =
MSG NR ... 73 18 02697 NY
64UN ..... (Cont'd)

6862 kHz, 20-05, 1642 UTC:

NR .05/EX 0040 RMKS CQ = 2UJ1/.3HW AR /BO1C AR
NR 1805/EX 0040 RMKS CQ = 2UJ7/L3HW/BO1C AR
NR 805/ESX 0040 RMKS CQ = 2UJQ/L35W/BO1. AR
CQ T6
SQTB DE 4MHG K
R 8EHC 8HIC DE 4MSG K
ISMN F.QX DE 4MHG K
R R GWM. GW7B GW7B DE 4MHG
KR.. AS5S AS5. AS5T I EEE AEEEE
AS5T AI5T AS5T DE 4MHG (1646z)
KRRRR
HRMSG GA
HR MSG GA HR MSG GA
MSG NR 1806 CK 81 48 052. 002. RMKS CQ 4.87 =
5U7D 37T5 ..73 DNA3 DUTA (Cont'd)
AR
SQTB SQTB DE 4MHG K
NR
8EHC 8ESC 8ESC DE 4MHG K
R
FVQX FVQX ISMN DE 4MHG K
R R
GW7B GW7B DE 4MHG K
NPT K EEE RPT K R R R
MSG NR 1.06 CK .1 4. 0521 0.5 K
NR MSG NR 1806 CK 81 48 0521 0025 K
AS5T DE 4MHG
KRR SK (Silent - 1655z)

6832 kHz, 20-05, 1657 UTC:

NUD7 ND7T U3TN U3.. (Cont'd)
AR
FT6D DE .... K (Very noisy)
.... DE AXN8 K
RNIL ... GB ..

5632 kHz, 20-05, 1727 UTC:

7G NR 1257 CK .1 98 0521 0100 RMKS 57.3.2 TO 57.383.8 K
= = ..DN A64U 4T.. DAU7 (Cont'd)

5669 kHz, 20-05, 1722 UTC:

MSG NR 4.2 CK
MSG NR 4422 CK ..80 05 1 0100 RMKS 1404 TO
= = ENT5 TA4N 547T N5AT UNT4 3A7N (Cont'd)
AR

6938 kHz, 20-05, 1040 UTC:

CK 7 EE 7GS CK 7GS
VV CK (Both stations on same freq)
R R CK 7GN CK
VVV VVV YZ. VVVV Q
VVV YZZ9 K
QSA .
7G TO U
R AS AS
NNK
7GS K
VVV MNGY K   VVV JKTS ZK K   VVV JKDZ K K
VVV OKDZ K K   VVV W....KK   VVV JK.Z K K
VVV JKDY K K   VVV JKDZ K K   VVV .KM   VVV JKDZ K
BEO KDZ . QSA 2 K QSA .
R 7G TO U
R 7GS
CK CK 311 T CK 311 K
R R = AS AS
TO U GA
R R
7G NR 323 CK 311 CLS 49 O520 1730
R M.
GA J73O
R R = AR
206D TO ......
AS AS TTT AS AS 8.93 TO 7G 19 =
3A3A .4T6 5U5 A5U3 T5UN (Cont'd)
(Still in tfc - 1119z)

5669 kHz, 20-05, 1731 UTC:

QSL 0128 0128
MSG MSG NR 4423 CK 69 8 0521 0100 RMKS 1404 TO 1401 AR
= = 356U .NT3 4AN7 5UD6 T3AU (Cont'd)
AR
NW 3 = OK OK (Silent - 1736z)

1757 4485 kHz, 20-05, 1755 UTC:

MSG NR 1702 CK .1 13 0521 0150 =
= = ..4U. DU75T ... (Cont'd - very weak - 1756z)

4237 kHz, 20-05, 1758 UTC:

FM 31260170 =
B T K K
NR NR MSG NR
MSG NR 4042 NR 79 45 0521 0150 ..1260173 TO 1260170 K K
= = AD65 4T.A T6UA AUD5 D3N. 46.7 74TD (Cont'd)
AR AR K K
NR NPT NPT = =
1865 1865 AR AR K K
NR GA GA

4665 kHz, 20-05, 1837 UTC:

NPT ..W K
NR . QSL 0238 0238 K
NR R. T6 GB GB SK

4939 kHz, 20-05, 1744 UTC:

RMKS 577348 FM 357732 AR
= = =
U6T7 T65D N7D3 4D3A 7N3U 37DA (Cont'd)
AR K
NPT K
= 7N3U 7N3U = 7N3U 7N3U
NR NSK SK

8051 kHz, 20-05, 2003 UTC:

845/EX 0403 = ..0/NB9 AR
NR 1845/EX 0403 = VB0/NB9 AR
NR 1845/EX 0403 = VB0/NB9 AR
QSY 82 QSY 82 V V V

(Another M89 station is active on 8075)

5588 kHz, 22-05, 1400 UTC: 2SLC switches to msg – handsent – horrible CW

VVV EEE CQ6 RMKS 8504 TO 8729 ..
/8.9 =
VV M64/87/ =
64/8729/22.0/237N/8504 AR
= 84464/.729/22.0/237//8504 =
/85.4W
(Return to roundslip – 1402z)

5555 kHz, 22-05, 1407 UTC:

CK 79 13 0522 2103
050 ...
TTTT 7NTAUAN35T7D T ? T ? 6UT7 3A6N (Silent - 1414z)

10866 kHz, 22-05, 2015 UTC:

6/EX 0412 = 68C2T/Q2Q4 AR
NR 1956/EX 0412 = 68C2T/Q2Q4 S AR
NR 1956/ESX 0412 = B8C2T/Q2Q4 S AR
QSY LW QSY LW VVV

8136 kHz, 22-05, 2025 UTC:

NR 3703/EX 0424 = V7M8/K9W J AR
NR 3703/EX 0424 = V7M8/K9W 1 AR
QSY 75 QSY 75 VVV

11126 kHz, 22-05, 2038 UTC:

/EX0436 .. CQ = SD9 =
EEEE = SD9/4T AR
NR 1113/EX 0436 RMKS CQ = SD9/40 AR
VVV 4RF5 K
UKP VVV
8UHB 8UHB K
QSA ? K
 R K U KP
VV
YSJ7 YHJ7 K
OK U VV
3ED. K
OK U K P
VV
TGSTY TGHY K

10168 kHz, 24-05, 1706 UTC:

DE 2JYT K
R K K
OK
X... DE 2JYT K
R K (Silent - 1707z)

10120 kHz, 23-05, 1402 UTC:

D6T4 75DN TDA5 TA5D A543 (Cont'd)
(Two other M89 stations in traffic on 10128 and 10131)
AR
RPT 24 = UDA4 AR
R R PT 41W = N573 AR K
R R S7G EEE RUGA GA S
R GA S R GA S
S QSL 2212 QSL 2212 S
NR 2220 CK 79 61 0523 2 EEE 2240 K
= = =
5D63 .T7A 7UDT D3.6 TA57 64D5 AN5U (Cont'd)
SSU7G ..
S GA S
SSI
R R 4W K
AS
RPT .0 K K
R RPT 35 UM
S RPT 46W K
R RPT 60W K
R RPT 071 U K
R QSL 2225 QSL 2225 K
R 7G GA K
R 7G GA NR 2211 CK 79 EEEE 21 CK 79 56 0523 2240 = =

10955 kHz, 24-05, 1641 UTC:

5743 465D N637 547A 35N4 N.7U 3ND7 4D7N A7D6 (Cont'd)
R OK AS VV
DLJ3 DLJ3 K
R OK AS VV
7D4E 7D4E K
R OK AS AS (Silent – 1645z)

11126 kHz, 24-05, 1652 UTC:

3DU3 UN3D D5N6 376N D.A7 A7TN (Cont'd)
AR
VV
4RF5 ... K
QSL 0053 K
VV
8USB 8USB K
RPT ..
VV
JM.. JMNU K
OK SP
VV
5TGY 5TGY K
R QSL ? K
OK RP VV
YHJ7 YHJ7 K (1655z)
R... VV
3EDF 3EDF K
OK
.... TGHY K
OK HR WU NR 1641 8688 HR WU NR 1641 8688 K (Silent - 1657z)
SU

10641 kHz, 24-05, 1703 UTC:

RMKS 9687 TO 9689 K K
R R =
56ND (Stopped – 1703z)

10336 kHz, 24-05, 1712 UTC:

R (In chat - 1712z)
MSG NR 6. AGN
MSG NR 6.67 CK

10479 kHz, 24-05, 1717 UTC:

D76A DUNA D54T T45U A57T T7U (Cont'd)
K
R = UTAN AR K
R R R R = = AT7U AR K
R R = 463U K
R R = A7DN AR K
R R RR GA K
R GA K
R R NH PT 75W K
R R RPT 75W K
R R QSL 0126 K
R R MSG NR 6340 CK 80 37 0525 0100 = K
R R RMKS 3128720 TO 3128729 =
=
D736 5U6D N3.. (Cont'd)
K
R R = AU34 CK
R R = = ATN4 AR K
R R = 7AD3 AR K
R R = = ATN. AR K
R R R (Silent - 1734z)

5500 kHz, 29-05, 1600 UTC:

ZZF3/H8 I3 AR
NR 6329/..09 =
Z7F3/S8 I3 AR
QSY 01 QSY 01 VV (Silent - 1601z)
(Normally QV5B uses this frequency)

5500 kHz, 30-05, 2028 UTC:

NR 716/EX = 264W0F6/H.K 0 AR
SK SK (Silent – 2029z)

2048 5348 kHz, 30-05, 2045 UTC:

AD36 3NDA DUA7 ND.. 436 4.. (Cont'd)
AR
R (Silent - 2048z)

8056 kHz, 31-05, 1447 UTC:

3A54 6T7. 43A6 37.. (Cont'd)
AR
QS. ? K (Silent - 1448z)
MSG NR .... 18.4791 TO 186EEE RMKS 1864791 TO 1864291 =
43DA D..3 A364 ... (Cont'd)

5500 kHz, 30-05, 2017 UTC:

HHY4/HIJ1 AR
NR 6478/EX 0415 = H5Y4/H8JJ AR
QSY 05 QSO EEEE QSY 05 VV

10953 kHz, 31-05, 1428 UTC:

T3A6 NT.4 UT76 T3.N T5D3 A4U5 DU3. (Cont'd)
AR K
R OK .S
R GA R GA
R AS AS
QSL ...
GB

VARIOUS MODES

M42 & X06

Russian Government & Intelligence

Modes:
Various digital modes, CW,
Tones (Мазелка / Mazielka)

16320	07-05	0150	FSK 200/1000	Russian Intel.
16320	06-05	0150	FSK 200/1000	Russian Intel.
16320	08-05	0150	FSK 200/1000	Russian Intel.
6867	07-05	1115	CW / Baudot 50/450	Russian Gov. w7ad de ti4o k. ok k. Then RTTY: ryryryry 038 117 7 1100 8943 10917 11203 28304 07218 44364 90062 70654 35004 12263 53125 69438 89322 26163 ...
15944	09-05	0810	FSK 200/1000	Russian Intel. 23 blocks, link 16405, msg 155, msg type 07145, 142 groups, 50636 28096 34286 15235 05092 03746 48004 14272
13453	09-05	0820	FSK 200/1000	Russian Intel. 23 blocks, link 16405, msg 155, msg type 07145, 142 groups, 50636 28096 34286 15235 05092 03746 48004 14272
8033.8	08-05	2344	CROWD-36	Russian diplo
16320	09-05	0150	FSK 200/1000	Russian Intel.

16320	14-05	0150	FSK 200/1000		**Russian Intel.**
16320	16-05	0150	FSK 200/1000		**Russian Intel.**
16320	17-05	0150	FSK 200/1000		**Russian Intel. Message Size 32 blocks**
16320	20-05	0150	FSK 200/1000		**Russian Intel.**
16320	21-05	0150	FSK 200/1000		**Russian Intel. 34 blocks**
16320	22-05	0150	FSK 200/1000		**Russian Intel. 50 blocks**
16320	23-05	0150	FSK 200/1000		**Russian Intel.**
17424	22-05	1222	FSK 200/1000		**Russian Intel., Moscow**
16320	24-05	0150	FSK 200/1000		**Russian Intel.**
16309	31-05	0720	FSK 200/1000		**Russian Intel..**
20187	31-05	0700	FSK 200/1000		**Russian Intel.. i.p. 835 53 92888 87464 35124 36. 859 54 92154 20235 46475 103. 878 55 87948 77081 08539 76. 874 56 04702 54311 43543 57 72057 91168 00000 +++++ 178**
16320	31-05	0150	FSK 200/1000		**Russian Intel. Total Message Size 2 blocks**
16320	30-05	0150	FSK 200/1000		**Russian Intel. Total Message Size 58 blocks**
16320	28-05	0150	FSK 200/1000		**Russian Intel.**
11428	28-05	2105	FSK 200/1000		**Russian Intel.**
16320	29-05	0150	FSK 200/1000		**Russian Intel.**
13388	01-05	1700			**Mazielka. Sequence: 1--6--**
14763	01-05	1622			**Mazielka. Sequence: 1----6**
10161	06-05	0653			**Mazielka. Sequence: 165324**
12152	06-05	0832			**Mazielka. Sequence: 432516**
13985	08-05	0853			**Mazielka. Sequence: 134265**
16116	08-05	0853			**Mazielka. Sequence: 134265**
19405	09-05	0605			**Mazielka. Sequence: 352416**
16115	15-05	0840			**Mazielka. Sequence: 215346**
16276	16-05	0713			**Mazielka. Sequence: 436512**
16320	17-05	0646			**Mazielka. Sequence: 241563**
15677	20-05	1659			**Mazielka. Sequence: 231654**
13419	22-05	0758			**Mazielka. Sequence: 465132**

North Korean diplomatic stations

16888.5 kHz, 04-05, 0909 UTC, DPRK-ARQ 600/600:   North Korean diplo
19418.4 kHz, 11-05, 0945 UTC, DPRK-ARQ 600/600:   North Korean diplo

Egyptian diplomatic stations

Modes: SITOR-A 100/170 & Codan-9001

19646.0 kHz, 02-05, 0750 UTC, Codan-16 USB: Messages from MFA Cairo to Embassies
19647.7 kHz, 02-05, 0745 UTC, Sitor-A 100/170:   MFA Cairo Egypt. Messages in presumed Arabic
14531.0 kHz, 04-05. 1818 UTC, Sitor-A 100/170:   MFA Cairo calling XBVP Rome
16026.7 kHz, 04-05, 1004 UTC, Sitor-A 100/170:   MFA Cairo calling XBVM Bonn
16086.7 kHz, 11-05, 0936 UTC, Sitor-A 100/170:   MFA Cairo calling KKVU Accra

Sudanese diplomatic stations

11350 kHz, 01-05, 1657 UTC, USB/Pactor-1:Sudanese Diplo - 2x OM/Arabic in plain voice tfc + Pactor-I

Chinese diplomatic stations

6800	02-05	4+4 LSB	Chinese diplo 4FGs
7830	01-05	4+4 LSB	Chinese diplo 4FGs
7896	01-05	4+4 LSB	Chinese diplo 4FGs
9194	01-05	4+4 LSB	Chinese diplo 4FGs
9198	01-05	4+4 LSB	Chinese diplo 4FGs
10206	01-05	4+4 LSB	Chinese diplo 4FGs
10464	01-05	4+4 LSB	Chinese diplo 4FGs
10779	01-05	4+4 LSB	Chinese diplo 4FGs
10854	02-05	4+4 LSB	Chinese diplo 4FGs
13383	01-05	4+4 LSB	Chinese diplo 4FGs
18352	04-05	4+4 LSB	Chinese diplo "XYXYXYXYXYXYXYXYXYXY CY MSG OK QSL2032"
18562	04-05	4+4 LSB	Chinese diplo "NPLV" repeats "GTMI GTMI GTMI DE NLPV NLPV NLPV QSA3 OK SK"

UTILITY ROUND-UP

Unid stations

Below the May unids. As always we need your help to identify them. Anyone??

3845 kHz, 07-05, 1435 UTC, CW: Unid sending continuously BSM2 AR. No break between letters, so call can be a combination of these 4 characters

10170.5 kHz, 06-05, 0151 UTC, MFSK-16: Unid repeats "PARIS ON TOP 5R x 5C PARIS ON TOP 5R x 5C PARIS ON TOP 5R x 5C PARIS ON TOP 5R x 5C PARIS ON TOP 44 23 14 51 85 44 23 14 31 44 45 26 52 21 44 44 40 44 31 12 14 15 53 14 51 15 41 42 14 93 22 24 35 42 15 37 52 13 24 35 62 13 13 41 23 00 51 43 54 12 31 24 95 42 41 77 52 14 52 44 45 18 42 14 24"

8881 kHz, 10-05, 1820 UTC, CW: Unid sending "attention attention the coffee is ready" over and over again. Stopped at 2036 UTC. Egil copied this odd one. An exercise???

6811 kHz, 23-05, 2002 UTC, CW: Unid in progress: ...5M/GI6 PW1151 2040 VESM/GI5 + NR 11 613 EX 6..ETT = ... 6 + QSY 2 ? ..J/+ + (nothing further)

❓ _Unid 10-minutes net_

Many thanks to JPL who submitted most of the logs of the still unid net.

3567 kHz, 07-05, 1120-1130 UTC: NZO6	3505 kHz, 02-05, 2040-2050 UTC: WF3A
4065 kHz, 07-05, 1120-1130 UTC: NZO6	4225 kHz, 02-05, 2040-2050 UTC: WF3A
3567 kHz, 07-05, 1720-1730 UTC: NZO6	
4065 kHz, 07-05, 1720-1730 UTC: NZO6	6954 kHz, 09-05, 1040-1050 UTC: ZUBW
4065 kHz, 09-05, 1020-1030 UTC: NZO6	5834 kHz, 17-05, 1040-1050 UTC: ZUBW
4064 kHz, 17-05, 1120-1130 UTC: NZO6	6954 kHz, 17-05, 1040-1050 UTC: ZUBW
4064 kHz, 17-05, 1150-1200 UTC: NZO6	5843 kHz, 19-05, 0605-0615 UTC: ZUBW
3568 kHz, 17-05, 1120-1130 UTC: NZO6	6954 kHz, 19-05, 0605-0615 UTC: ZUBW
3568 kHz, 17-05, 1150-1200 UTC: NZO6	
3568 kHz, 23-05, 1850-1900 UTC: NZO6	3314 kHz, 18-05, 1905-1915 UTC: S3DN
	3959 kHz, 18-05, 1905-1915 UTC: S3DN
	3314 kHz, 18-05, 1935-1945 UTC: S3DN
	3959 kHz, 18-05, 1935-1945 UTC: S3DN

Latest database update:

Schedule 1 Time slot	Schedule 2 Time slot	Callsign	Frequencies +/- 1 kHz
15-25	45-55	4KUE	3285, 3958
15-25	45-55	KTR4	3207, 3860
15-25	45-55	L6YC	3207, 3860
15-25	45-55	POCI	3700, 4136
20-30	50-00	B4NR	4036
20-30	50-00	MWKJ	3343
20-30	50-00	NZO6	3567, 4065
20-30	50-00	U34D	3241
25-35	55-05	Q7JN	3265
25-35	55-05	U34D	3420
25-35	55-05	UXUO	3700, 4136
25-35	55-05	VTI8	3700
25-35	55-05	VTID	3178, 3802
05-15	35-45	DJEF	3753
05-15	35-45	S3DN	3314, 3959
05-15	35-45	SFO3	3698
05-15	35-45	ZJL4	3809
05-15	40-50	ZUBW	5834, 6954
10-20	40-50	IGAE	3698
10-20	40-50	L6YC	3205
10-20	40-50	NELC	3517, 3700
10-20	40-50	WF3A	3505, 4225

Intelligence profile
Botswana

BACKGROUND

Formerly the British protectorate of Bechuanaland, Botswana adopted its new name upon independence in 1966. Four decades of uninterrupted civilian leadership, progressive social policies, and significant capital investment have created one of the most dynamic economies in Africa. Mineral extraction, principally diamond mining, dominates economic activity, though tourism is a growing sector due to the country's conservation practices and extensive nature preserves. Botswana has one of the world's highest known rates of HIV/AIDS infection, but also one of Africa's most progressive and comprehensive programs for dealing with the disease.

GENERAL

Country name:	Republic of Botswana (Botswana)
Former name:	Bechuanaland
Capital:	Gaborone
9 Districts:	Central, Ghanzi, Kgalagadi, Kgatleng, Kweneng, North East, North West,South East, Southern
5 Town councils:	Francistown, Gaborone, Jwanen, Lobatse, Selebi-Pikwe

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MILITARY BRANCHES

Botswana Defense Force (BDF): Ground Forces Command, Air Arm Command, Defense Logistics Command, Special Forces Group

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INTELLIGENCE & SECURITY

Botswana Police Service
Directorate of Intelligence Security (DIS)
Military Intelligence (MI)

Directorate of Intelligence and Security

According to Chapter 23:02 of the Intelligence and Security Service Act, the functions of the DIS include:

a)   investigate, gather, coordinate, evaluate, correlate, interpret, disseminate and store information, whether inside or outside Botswana, for the purposes of detecting and identifying any threat or potential threat to national security, advising the President and the Government of any threat or potential threat to national security, taking steps to protect the security interests of Botswana whether political, military or economic;

b)   gather ministerial intelligence at the request of any Government ministry, department or agency and, without delay, to evaluate and transmit as appropriate to that ministry, department or agency, such intelligence and any other intelligence at the disposal of the Directorate which constitutes ministerial intelligence;

c)   regulate, in cooperation with any Government ministry, department or agency entrusted with any aspect of the maintenance of national security, the flow of intelligence and security, and the coordination between the Directorate and that ministry, department or agency of functions relating to such intelligence;

d)   advise Government, public bodies and statutory bodies on the protection of vital installations and classified documents;

e)   carry out security vetting investigations for the security clearance of persons who have or may have access to any sensitive or classified information;

f)   make recommendations to the President in connection with policies concerning intelligence and security, intelligence and security priorities, and security measures in Government ministries, departments or agencies;

g) provide personal protection to the former President, the former President's immediate family, the President, the President's immediate family, the Vice President, the Vice President's immediate family, visiting dignitaries and such other persons as the President may determine; and

h) subject to any other written law, perform such other duties and functions as may, from time to time, be determined by the President to be in the national interest.

Divisions of the Directorate:

Internal Intelligence Division: responsible for gathering domestic intelligence

External Intelligence Division: responsible for gathering

(a) foreign intelligence and counter intelligence including information otherwise unobtainable;

(b) intelligence on political, economic, sociological and technical aspects of foreign intelligence affecting national security;

(c) intelligence in relation to organised crime.

Crime Intelligence Branch (CRIB) is a Branch of the Botswana Police Service that is at the forefront of the fight against serious and organised crime in Botswana. It provides a number of services to operational law enforcement to enhance the development of criminal intelligence on serious criminality. The Branch has offices/units at the district level and strategic and specialist units based at the headquarters.

As a national centre of expertise on serious and organised crime, CRIB also conducts research and analysis on a range of specialist areas, producing strategic intelligence.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

Botswana government: http://www.gov.bw

Police: www.police.gov.bw

Intelligence profile
Kuwait

BACKGROUND

Britain oversaw foreign relations and defense for the ruling Kuwaiti AL-SABAH dynasty from 1899 until independence in 1961. Kuwait was attacked and overrun by Iraq on 2 August 1990. Following several weeks of aerial bombardment, a US-led, UN coalition began a ground assault on 23 February 1991 that liberated Kuwait in four days. Kuwait spent more than $5 billion to repair oil infrastructure damaged during 1990-91. The AL-SABAH family has ruled since returning to power in 1991 and reestablished an elected legislature that in recent years has become increasingly assertive. The country witnessed the historic election in May 2009 of four women to its National Assembly. Since 2006, the Amir has dissolved the National Assembly on five occasions (the Constitutional Court dissolved the Assembly once in June 2012) and reshuffled the cabinet 12 times, usually citing political stagnation and gridlock between the legislature and the government.

GENERAL

Country name: Dawlat al Kuwayt (State of Kuwait)
Short name: Al Kuwayt (Kuwait)
Capital: Kuwait City
6 Governorates: Al Ahmadi, Al 'Asimah, Al Farwaniyah, Al Jahra', Hawalli, Mubarak al Kabir

MILITARY BRANCHES

Kuwaiti Land Forces (KLF), Kuwaiti Navy, Kuwaiti Air Force (Al-Quwwat al-Jawwiya al-Kuwaitiya; includes Kuwaiti Air Defense Force, KADF), Kuwaiti National Guard (KNG)

INTELLIGENCE & SECURITY

National Police

The **National Police** is directly responsible to the Emir and the Ministry of the Interior. It consists of the following departments:
- **The Criminal Security Directory includes the Criminal Investigation Department; the Department of Criminal Evidence; and the Narcotics Prevention Department.**
- **The Public Security Directory includes Airport Security and Port Security.**
- **The Nationality and Passports Directory includes the General Directorate for the Investigation of Immigration; and the General Department of Central Operations.**
- **The Special Security Forces is a paramilitary unit responsible for the protection of important buildings and installations.**
- **State Security investigates security-related offenses.**

The **Kuwaiti National Guard** is the main internal and border security force.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

Ministery of Interior	**http://www.moi.gov.kw**
Kuwait Government Online	**http://www.e.gov.kw**
Ministry of Defense	**http://www.mod.gov.kw/**
US Dept of State	**http://www.state.gov/**
National Guard	**http://www.kng.gov.kw/**
CIA World Factbook	**https://www.cia.gov/library/publications/the-world-factbook/**

Intelligence profile
Montenegro

BACKGROUND

The use of the name Montenegro began in the 15th century when the Crnojevic dynasty began to rule the Serbian principality of Zeta; over subsequent centuries Montenegro was able to maintain its independence from the Ottoman Empire. From the 16th to 19th centuries, Montenegro became a theocracy ruled by a series of bishop princes; in 1852, it was transformed into a secular principality. After World War I, Montenegro was absorbed by the Kingdom of Serbs, Croats, and Slovenes, which became the Kingdom of Yugoslavia in 1929; at the conclusion of World War II, it became a constituent republic of the Socialist Federal Republic of Yugoslavia. When the latter dissolved in 1992, Montenegro federated with Serbia, first as the Federal Republic of Yugoslavia and, after 2003, in a looser union of Serbia and Montenegro. In May 2006, Montenegro invoked its right under the Constitutional Charter of Serbia and Montenegro to hold a referendum on independence from the state union. The vote for severing ties with Serbia exceeded 55% - the threshold set by the EU - allowing Montenegro to formally declare its independence on 3 June 2006.

GENERAL

Country name:	Crna Gora (Monte Negro)
Former name:	People's Republic of Montenegro, Socialist Republic of Montenegro, Republic of Montenegro
Capital:	Podgorica
21 Municipalities:	Andrijevica, Bar, Berane, Bijelo Polje, Budva, Cetinje, Danilovgrad, Herceg Novi, Kolasin, Kotor, Mojko-vac, Niksic, Plav, Pljevlja, Pluzine, Podgorica, Rozaje, Savnik, Tivat, Ulcinj, Zabljak

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MILITARY BRANCHES

Armed Forces of the Republic of Montenegro: Army of Montenegro (includes Montenegrin Navy (Mornarica Crne Gore, MCG)), Air Force

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INTELLIGENCE & SECURITY

Agencija za Nacionalnu Bezbjednost (ANB) / National Security Agency
Department for intelligence, counterintelligence and security

The ANB is responsible for the performance of national security activities aimed at the protection of the constitutional order, independence, sovereignty, territorial integrity and security of Montenegro, human rights and freedoms guaranteed by the Constitution, as well as other duties of interest for the national security of Montenegro. The Agency is a security-intelligence service that forms an integral part of the security system of Montenegro.
It is pursuant to the Law on the National Security (Official Gazette of Montenegro, No. 28/05 of 5 May 2005), that the National Security Agency of Montenegro has been established as a separate state authority which, in the capacity of a legal successor, has inherited all assets of the former State Security Service of the Ministry of Interior of Montenegro, taking over its personnel, as well as archives and official documentation.

The Military Intelligence Service within the Ministry of Defence is operationally responsible to the ANB, that performs tasks related to intelligence and counterintelligence. As specified in the Law on Defence, this unit -unlike other ANB departments- is authorised to gather only information related to the defence of Montenegro. Furthermore, it may gather such intelligence only within the territory of Montenegro.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

ANB	http://www.anb.me/
Government	http://www.gov.me/
CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/

Intelligence profile
Qatar

BACKGROUND

Ruled by the Al Thani family since the mid-1800s, Qatar transformed itself from a poor British protectorate noted mainly for pearling into an independent state with significant oil and natural gas revenues. During the late 1980s and early 1990s, the Qatari economy was crippled by a continuous siphoning off of petroleum revenues by the Amir, who had ruled the country since 1972. His son, the current Amir HAMAD bin Khalifa Al Thani, overthrew him in a bloodless coup in 1995. In 2001, Qatar resolved its longstanding border disputes with both Bahrain and Saudi Arabia. As of 2007, oil and natural gas revenues had

enabled Qatar to attain the highest per capita income in the world. Qatar has not experienced the level of unrest or violence seen in other Near Eastern and North African countries in 2010-11, due in part to its immense wealth. Qatar's international image is bolstered in part by the Doha-based Al Jazirah news network, which has provided comprehensive coverage of the Near East and North African Arab revolutions. Additionally, Qatar played a significant role in the Libyan revolution by pressing the Gulf Cooperation Council and the Arab League to assist the Libyan rebel movement.

GENERAL

Country name:	Dawlat Qatar (Sate of Qatar)
Short name:	Qatar
Capital:	Doha
7 Municipalities:	Dawhah, Al Khawr wa adh Dhakhirah, Al Wakrah, Ar Rayyan, Ash Shamal, Az Za'ayin, Umm Salal

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MILITARY BRANCHES

Qatari Emiri Land Force (QELF), Qatari Emiri Navy (QEN), Qatari Emiri Air Force (QEAF)

INTELLIGENCE & SECURITY

Internal Security Force (Lekhwiya)
Rescue Police (Al-Fazaa)
Coasts and Borders Security Department
Qatar Security Forces Institute
Institute of Administrative Development (IAD)

The security forces are controlled by the Interior Ministry, consisting of the Rescue Police (Al-Fazaa), Coasts and Borders Security Department, Civil Defense and the Internal Security Force (Lekhwiya). The latter reports directly to the Amiri Diwan and performs internal security investigations, gathers intelligence, and has primary responsibility for sedition and espionage cases. The civilian authorities maintained effective control of the security forces.

Internal Security Force Lekhwiya was established in 2004 and its responsibilities include:
  – **Assisting and supporting concern state agencies in maintaining security and stability.**
  – **Responding to terrorist acts and any other acts that may jeopardize internal security.**
  – **Ensuring the safety of dignitaries, leader, and guests of the Qatar.**
  – **Dealing with riots and securing conferences, meetings and other events.**
In executing these duties the ISF often collaborates with other agencies such as the Ministry of Interior, Civil Defence, Coast Guard, and national Police traffic and patrol units.

The Qatar Security Forces Institute is the police trainings institute.

The Institute of Administrative Development [IAD] is one of the official hubs of expertise in the State of Qatar. It provides training programs, research studies / projects and consultations aimed at developing the Qatari society. The IAD also offers training programs for the Lakhwia.

The Rescue Police "Al Fazaa" started its operation from Sunday, 15 March2009 in all areas of the Doha city. The initiative comes in the framework of the Ministry of Interior's efforts to spread security in general through organizing and running security patrols that will provide security and stability and would extend helps and supports for citizens and expatriates in addition to offering humanitarian and social services for the community individuals.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

Ministry of Interior	http://www.moi.gov.qa
CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/
IAD	http://www.iad.gov.qa

LOGS SECTION

The logs are sorted on code, date and frequency.

frequency	date	UTC	enigma	mode	day	remarks	contributor
13404	1-5-2013	0707	---	CW	Wed	Unid station sending five letter groups	(EW)
3505	2-5-2013	2040	---	CW	Thu	Unid 10-minute net: WF3A. Silent at 2050 UTC //4225 kHz	(JPL-Sib)
4225	2-5-2013	2040	---	CW	Thu	Unid 10-minute net: WF3A. Silent at 2050 UTC //3505 kHz	(JPL-Sib)
11105	2-5-2013	1119	---	CW	Thu	Unid station sending cut number groups	(EW)
7777	6-5-2013	1832	---	CW	Mon	QSA4 QSA? QRV? K. = 182 100 6 1802 0138 = 11888 00323 92880 84480 42501 14673 71446 83370 89430 25478 = K. CFM NIL QRU? K. QRV K. K. R 123 1828 K. SK. Slow, hand-keyed, short zeros. Time prob UTC.	(MPJ)
3567	7-5-2013	1654	---	CW	Tue	Unid 10-minutes station c/s NZO6 //4065 kHz	(JPL-Sib)
3567	7-5-2013	1720	---	CW	Tue	Unid 10-minutes station c/s NZO6 //4065 kHz	(JPL-Sib)
3845	7-5-2013	1435	---	CW	Tue	Unid sending continuously BSM2 AR	(JPL)
4065	7-5-2013	1654	---	CW	Tue	Unid 10-minutes station c/s NZO6 //3567 kHz	(JPL-Sib)
4065	7-5-2013	1720	---	CW	Tue	Unid 10-minutes station c/s NZO6 //3567 kHz	(JPL-Sib)
4605	7-5-2013	1129	---	CW	Tue	Unid 10-minutes net. c/s NZO6 (Silent 1130z)	(JPL-Sib)
4500	8-5-2013	2306	---	CW	Wed	144 404 144 404 144 144 1 404 1 4O4	(LG2)
4065	9-5-2013	1030	---	CW	Thu	Unid 10-minutes station c/s NZO6, ends at 1030 UTC	(JPL-Sib)
6954	9-5-2013	1040	---	CW	Thu	Unid 10-minutes station c/s ZUBW	(JPL-Sib)
3568	17-5-2013	1122	---	CW	Fri	Unid 10-minutes net. NZO6 in time slot 1120-1130 UTC //4064	(JPL-Sib)
3568	17-5-2013	1150	---	CW	Fri	Unid 10-minutes net. NZO6 in time slot 1150-1200 UTC //4064	(JPL-Sib)
4064	17-5-2013	1122	---	CW	Fri	Unid 10-minutes net. NZO6 in time slot 1120-1130 UTC //3568	(JPL-Sib)
4064	17-5-2013	1150	---	CW	Fri	Unid 10-minutes net. NZO6 in time slot 1150-1200 UTC //3568	(JPL-Sib)
5834	17-5-2013	1040	---	CW	Fri	Unid 10-minutes net. ZUBW in time slot 1040-1050 UTC //6954	(JPL-Sib)
6954	17-5-2013	1040	---	CW	Fri	Unid 10-minutes net. ZUBW in time slot 1040-1050 UTC //5834	(JPL-Sib)
3314	18-5-2013	1915	---	CW	Sat	Unid 10-minutes net. S3DN in time slot 1905-1915 UTC //3959	(JPL-Sib)
3314	18-5-2013	1935	---	CW	Sat	Unid 10-minutes net. S3DN in time slot 1935-1945 UTC //3959	(JPL-Sib)
3959	18-5-2013	1915	---	CW	Sat	Unid 10-minutes net. S3DN in time slot 1905-1915 UTC //3314	(JPL-Sib)
3959	18-5-2013	1935	---	CW	Sat	Unid 10-minutes net. S3DN in time slot 1935-1945 UTC //3314	(JPL-Sib)
5843	19-5-2013	0605	---	CW	Sun	Unid 10-minutes net. ZUBW in time slot 0605-0615 UTC //6954	(JPL-Sib)
6954	19-5-2013	0605	---	CW	Sun	Unid 10-minutes net. ZUBW in time slot 0605-0615 UTC //5843	(JPL-Sib)
3568	23-5-2013	1854	---	CW	Thu	Unid 10-minutes net: NZO6	(MPJ)
7830	1-5-2013	1203	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
7896	1-5-2013	1158	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
9194	1-5-2013	1025	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
9198	1-5-2013	1038	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
10206	1-5-2013	1138	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
10464	1-5-2013	1124	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
10779	1-5-2013	1119	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
13383	1-5-2013	1203	CHN	4+4 LSB	Wed	Chinese diplo 4FGs	(EW)
6800	2-5-2013	1150	CHN	4+4 LSB	Thu	Chinese diplo 4FGs	(EW)
10854	2-5-2013	1905	CHN	4+4 LSB	Thu	Chinese diplo 4FGs	(EW)
18352	4-5-2013	0017	CHN	4+4 LSB	Sat	Chinese diplo "XYXYXYXYXYXYXYXYXYXY CY MSG OK QSL2032"	(MCO)
18562	4-5-2013	1148	CHN	4+4 LSB	Sat	Chinese diplo "NPLV" repeats "GTMI GTMI GTMI DE NLPV NLPV NLPV QSA3 OK SK"	(MCO)
16888.5	4-5-2013	0909	DPRK	DPRK-ARQ 600/600	Sat	N. Korean diplo	(PPA)
19418.4	11-5-2013	0945	DPRK	DPRK-ARQ 600/600	Sat	North Korean diplo	(PPA)
5948	2-5-2013	2030	E06	AM	Thu	724 059 15 = 18473	(HFD)
14460	3-5-2013	0500	E06	AM	Fri	460 973 101 = 87024	(HFD)
16170	3-5-2013	0600	E06	AM	Fri	460 973 101 = 87024	(HFD)
13885	14-5-2013	1503	E06	USB	Tue	239 169 43 81021...	(FMB)

frequency	date	UTC	enigma	mode	day	remarks	contributor
14460	16-5-2013	0508	E06	USB+carrier	Thu	i.p. 89801 35864 80837 37045 89946 14571 67324 etc	(FYM)
14839	16-5-2013	1400	E06	USB	Thu	239 655 47 73520...	(FMB)
16170	16-5-2013	0609	E06	USB+carrier	Thu	i.p. 35819 09319 75984 07311 89801 35864 80837 37045 etc.	(FYM)
13385	17-5-2013	1507	E06	USB	Fri	(ip) 907 907 41 41 00000	(FMB)
10547	2-5-2013	2031	E07	AM	Thu	553 0	(HFD)
11539	2-5-2013	2010	E07	AM	Thu	553 0	(HFD)
13412	6-5-2013	1920	E07	AM	Mon	845 0	(HFD)
14812	6-5-2013	1900	E07	AM	Mon	845 0	(HFD)
8173	8-5-2013	2000	E07	AM	Wed	147 147 147 000	(JBL)
14812	8-5-2013	1900	E07	AM	Wed	845 845 845 000	(AB/JBL)
13363	12-5-2013	1720	E07	AM	Sun	731 1	(HFD)
14763	12-5-2013	1700	E07	AM	Sun	731 0	(HFD)
13412	15-5-2013	1920	E07	AM	Wed	OM EE 845 845 845 000	(JBL)
11082	17-5-2013	1530	E07	AM	Fri	101 101 101 000	(FN)
12182	17-5-2013	1510	E07	AM	Fri	101 101 101 000	(FN)
11512	27-5-2013	1940	E07	AM	Mon	845 1 328 111 29219 62208......12951 05992 000 000	(Dan)
11512	29-5-2013	1940	E07	AM	Wed	845 1 msg 000	(FG)
13412	29-5-2013	1920	E07	AM	Wed	845 1 msg 000	(FG)
10547	30-5-2013	2030	E07	AM	Thu	553 ... 000	(FG/Dan)
11539	30-5-2013	2010	E07	AM	Thu	553 ... 000	(FG)
12177	4-5-2013	0800	E07a	USB	Sat	148 0	(HFD)
13477	4-5-2013	0820	E07a	USB	Sat	148 0	(HFD)
10182	24-5-2013	1550	E07a	USB	Fri	101 1 60007	(HFD)
11082	24-5-2013	1530	E07a	USB	Fri	101 1 60007	(HFD)
12172	24-5-2013	1510	E07a	USB	Fri	101 1 60007 6607 91 = 98232	(HFD)
12177	25-5-2013	0800	E07a	USB	Sat	148 148 148 1 60007, 6607 91, 98232 35339 72953 40473 76472 ... 000 000	(FYM)
13477	25-5-2013	0820	E07a	USB	Sat	148 148 148 1 60007, 6607 91, 98232 35339 72953 40473 76472 ... 000 000	(FYM)
5773	29-5-2013	2040	E07a	USB	Wed	147 1 32915 ... 000	(FG)
7473	29-5-2013	2020	E07a	USB	Wed	147 1 32915 ... 000	(FG)
13427	1-5-2013	0900	E11	USB	Wed	534/00	(HFD)
8088	2-5-2013	1730	E11	USB	Thu	416/00	(HFD)
12924	3-5-2013	0830	E11	USB	Fri	649/00	(HFD)
14753	3-5-2013	0710	E11	USB	Fri	633/00	(HFD)
16335	5-5-2013	1540	E11	USB	Sun	228/00	(HFD)
6280	6-5-2013	0820	E11	USB	Mon	438/00	(HFD)
10800	6-5-2013	0450	E11	USB	Mon	416/00	(HFD)
16335	6-5-2013	1540	E11	USB	Mon	228/00	(HFD)
13424	7-5-2013	0645	E11	USB	Tue	514/34 = 19662	(HFD)
15632	7-5-2013	0745	E11	USB	Tue	335/00	(HFD)
13424	8-5-2013	0545	E11	USB	Wed	348/00	(HFD)
9200	10-5-2013	2000	E11	USB	Fri	576/00	(HFD)
9202	10-5-2013	2000	E11	USB	Fri	576/00	(AB)
13427	13-5-2013	0855	E11	USB	Mon	534/00	(BCI)
4909	15-5-2013	1445	E11	USB	Wed	YL EE 287/22, no msg included. Out	(JBL)
13427	15-5-2013	0900	E11	USB	Wed	534/00	(FYM)
8088	16-5-2013	1730	E11	USB	Thu	416/00	(FYM)
15632	16-5-2013	0745	E11	USB+carrier	Thu	335/00	(FYM)
4909	18-5-2013	0900	E11	USB	Sat	248/00	(HFD)
4909	18-5-2013	1445	E11	USB	Sat	287/00	(HFD)
9610	22-5-2013	1045	E11	USB	Wed	469/00	(HFD)
4909	25-5-2013	0900	E11	USB	Sat	248/00	(FYM)
16335	1-5-2013	1155	E11a	USB	Wed	712/31 = 60583	(HFD)
16335	2-5-2013	1155	E11a	USB	Wed	712/31 = 60583	(HFD)
10487	3-5-2013	1710	E11a	USB	Fri	959/20 = 91###	(HFD)

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frequency	date	UTC	enigma	mode	day	remarks	contributor
16388	3-5-2013	1110	E11a	USB	Fri	958/31 = 72480	(HFD)
14518	4-5-2013	1810	E11a	USB	Sat	986/10 = 65468	(HFD)
10487	6-5-2013	1710	E11a	USB	Mon	955/28 Attention 48637 34682 82999...32852 (R) Out	(JBL-HOL)
13427	6-5-2013	0900	E11a	USB	Mon	533/35 56617 48891 84031 etc.	(FYM)
14518	7-5-2013	1810	E11a	USB	Tue	982/12 Attention 86987 25698 45879...22147 (R) out out out out	(JBL)
10487	10-5-2013	1710	E11a	USB	Fri	953/32 Attention! 87724 47225 79724...25785 (R) Out	(JBL)
10487	13-5-2013	1710	E11a	USB	Mon	957/20 A 36148 49754 25356 etc ..	(FYM)
10487	13-5-2013	1710	E11a	USB	Mon	957/22 "Attention! 36148 49754 25356...52553" (R) Out	(JBL-HOL)
14769	13-5-2013	0417	E11a	USB	Mon	i.p.	(MCO)
16388	13-5-2013	1110	E11a	USB	Mon	958/31	(FYM)
6280	16-5-2013	0820	E11a	USB	Thu	438/36 Attention 70290 39135 20033 etc	(FYM)
16388	17-5-2013	1110	E11a	USB	Fri	955/20 A 63140 46670 80455 71130 86723 79570 etc.	(FYM)
14518	25-5-2013	1810	E11a	USB	Sat	987/10 Attention 52953 14658 85603 77518 51715 73504 76485 09616 42778 21007 Attention, rpt msg, Out	(AB)
13722	28-5-2013	1400	E11a	USB	Tue	982/10 = 30594	(HFD)
12850	2-5-2013	0810	E17z	USB	Thu	674	(HFD)
16780	2-5-2013	0800	E17z	USB	Thu	674 209 5 = 46062	(HFD)
12850	16-5-2013	0810	E17Z	USB+carrier	Thu	repeat of E17z message of 0800z	(FYM)
16780	16-5-2013	0800	E17Z	USB+carrier	Thu	674 902 5 89562 15864 76184 95264 30567	(FYM)
9450	12-5-2013	1115	E25	AM	Sun	YL. 315 MESSAGE 4588 6370 7021 1287 2051 8874 5681 6356 2883 2742 6370 2364 REBEAT 4588 6370 7021 1287 2051 8874 5681 6356 2883 2742 6370 2364	(AIK)
9450	12-5-2013	1149	E25	AM	Sun	Spider solitaire sounds	(AIK)
9450	12-5-2013	1158	E25	AM	Sun	Carrier, "spider solitaire" sounds	(MG)
9450	12-5-2013	1201	E25	AM	Sun	YL "8" onlyc	(MG)
9450	12-5-2013	1214	E25	AM	Sun	Music: Enta Omri. YL. 8 830 830 6 830 6 ESSAGE MESSAGE MESSAGE	(AIK)
6140	14-5-2013	0830	E25	AM	Tue	YL. 672 MESSAGE 2022 6021 7629 8209 3158 9096 4514 5329 2829 7739 (see N&O 188)	(AIK)
6140	14-5-2013	1034	E25	AM	Tue	YL. 672 MESSAGE 2022 6021 7629 8209 3158 9096 451- 5329 2829 7739 REBEAT 2022 6021 7629 8209 3158 9096 451- 5329 2829 7739 END OF MESSAGE	(AIK)
6140	16-5-2013	0838	E25	AM	Thu	Epic movie soundtrack	(AIK)
6140	16-5-2013	0912	E25	AM	Thu	OM. 550 or 950 (14x) MESSAGE 5051 1932 0380 8086 1701 2518 9817 9557 9241 5552 5639 1954 2550 9140 0380 REBEAT 5051 1932 0380 8086 1701 2518 9817 9557 9241 5552 5639 1954 2550 9140 0380 EOM EOT	(AIK)
9450	18-5-2013	1218	E25	AM	Sat	YL. 830 7 830 7 830 7 EOM EOT	(AiR)
6140	19-5-2013	0045	E25	AM	Sun	YL. 350 35 MESSAGE 1945 441 4440 5001 8183 2781 8200 2594 1040 4897 4440 etc	(AIK)
6140	19-5-2013	0859	E25	AM	Sun	YL. 111 111 111 MESSAGE 1093 0150 6061 5543 2810 5852 8775 etc	(AIK)
6140	20-5-2013	0812	E25	AM	Mon	YL. 185 185 185 MESSAGE 4909 2250 5602 7525 4342 2716 4295 7115 etc	(AIK)
6140	27-5-2013	0717	E25	AM	Mon	Epic music movie	(AIK)
6140	8-5-2013	0933	E25a	AM	Wed	YL. 22 2 3 135 MESSAGE REBEAT END OF MESSAGE END OF TRANSMISSION. Spider solitaire sounds	(AIK)
9450	12-5-2013	1215	E25a	AM	Sun	YL txm ended with "Message", Windows "click" sounds, brief Arabic OM ending with the word "jihad"	(MG)
6140	20-5-2013	0856	E25a	AM	Mon	YL. 200 5 200 5 MESSAGE REBEAT EOM 200 5 200 5 2	(AIK)
6140	21-5-2013	0813	E25a	AM	Tue	YL. 187 23 187 23 MESSAGE REBEAT EOM	(AIK)
19646	2-5-2013	0750	EGY	Codan-16 USB	Thu	Messages from MFA Cairo to Embassies	(EW)
19647.7	2-5-2013	0745	EGY	SITOR-A 100/170	Thu	MFA Cairo Egypt. Messages in presumed Arabic	(EW)
14531.7	4-5-2013	1818	EGY	SITOR-A 100/170	Sat	MFA Cairo clg XBVP Rome	(PPA)
16026.7	4-5-2013	1004	EGY	SITOR-A 100/170	Sat	MFA Cairo clg XBVM Bonn	(PPA)

frequency	date	UTC	enigma	mode	day	remarks	contributor
16086.7	11-5-2013	0936	EGY	Sitor-A 100/170	Sat	MFA Cairo calling KKVU Accra	(PPA)
9269	3-5-2013	2000	G06	USB	Fri	239 239 239 00000	(FMB)
11424	3-5-2013	1903	G06	USB	Fri	239 239 239 00000	(FMB)
6948	6-5-2013	0800	G06	AM	Mon	215 0	(HFD)
5942	10-5-2013	1929	G06	USB	Fri	567/15 97501 86593 04483...81837 567 567 15 15 00000	(JBL-HOL)
5943	10-5-2013	1930	G06	AM	Fri	218 567 15 = 97501	(HFD)
5784	13-5-2013	1800	G06	USB	Mon	(ip) 369 369 22 22 00000	(FMB)
9268	17-5-2013	2000	G06	AM	Fri	239 0	(HFD)
11424	17-5-2013	1900	G06	AM	Fri	239 0	(HFD)
6887	23-5-2013	1830	G06	AM	Thu	842 146 15 = 43554	(HFD)
3815	3-5-2013	2000	G11	CW	Fri	262/00	(HFD)
5815	5-5-2013	1755	G11	USB	Sun	270/00	(HFD)
05815	7-5-2013	1755	G11	USB	Tue	270/00 Achtung 05252 88892 59252...02963 (R) ende	(JBL)
5815	10-5-2013	1325	G11	USB	Fri	299/00	(JBL)
5815	14-5-2013	1755	G11	USB	Tue	270/00	(FYM)
5815	14-5-2013	1755	G11	USB	Tue	270/00	(JBL)
5815	18-5-2013	1325	G11	USB	Sat	299/00	(HFD)
5815	18-5-2013	1325	G11a	USB	Sat	299/32	(FYM)
14375	30-4-2013	0640	HM01	AM/RDFT		Coded messages and RDFT modem traffic	(PPA)
9155	1-5-2013	1035	HM01	AM/RDFT	Wed	Cuba. Lady reading 5LGs + RDFT msg	(EW)
11530	1-5-2013	2300	HM01	AM/RDFT	Wed	68526 34465 71674 07132 68264 76683	(Dan)
12120	2-5-2013	0500	HM01	AM/RDFT	Thu	68526 34465 71674 07132 68264 76683	(Dan)
17540	2-5-2013	2300	HM01	AM/RDFT	Thu	68526 34465 71674 07132 68264 76683	(Dan)
10345	3-5-2013	0643	HM01	AM/RDFT	Fri	i.p.	(EW)
17540	4-5-2013	2300	HM01	AM/RDFT	Sat	68526 34465 71674 07132 68264 76683	(Dan)
12120	7-5-2013	0500	HM01	AM/RDFT	Tue	68526 34465 71674 07132 68264 76683	(Dan)
16180	7-5-2013	2146	HM01	AM/RDFT	Tue	YL SS in progress with 5fg's and RDFT data	(JBL)
17480	7-5-2013	2200	HM01	AM/RDFT	Tue	YL SS in progress with 5fg's and RDFT data	(JBL)
17540	7-5-2013	2257	HM01	AM/RDFT	Tue	YL SS starting early "34465 71674 07132 68264 76683 68526" + RDFT	(JBL)
10715	8-5-2013	2158	HM01	AM/RDFT	Wed	YL SS already in progress	(JBL)
11530	8-5-2013	2257	HM01	AM/RDFT	Wed	YL SS "34465 71674 07132 68264 76683 68526" + RDFT	(JBL)
11635	8-5-2013	2058	HM01	AM/RDFT	Wed	YL SS already in progress	(JBL)
11635	9-5-2013	1031	HM01	AM/RDFT	Thu	i.p.	(Steve)
12120	9-5-2013	0930	HM01	AM/RDFT	Thu	Spanish calling and then followed by data bursts	(JS)
12180	9-5-2013	1000	HM01	AM/RDFT	Thu	Spanish calling and then followed by data bursts	(JS)
17480	9-5-2013	2158	HM01	AM/RDFT	Thu	Synthesized Female Voice in Spanish with a series of 5FGs followed by RDFT	(Steve)
9063	10-5-2013	0928	HM01	AM/RDFT	Fri	I/p Spanish yl 5FGs strong signal	(LG2)
10715	10-5-2013	2158	HM01	AM/RDFT	Fri	YL SS 34465 70674 07032 68264 76683 68526 + RDFT	(JBL)
10345	13-5-2013	0633	HM01	AM/RDFT	Mon	YL/SS voice with digital numbers	(quan)
12120	14-5-2013	0930	HM01	AM/RDFT	Tue	Spanish calling and then followed by data bursts	(JS)
12180	14-5-2013	1000	HM01	AM/RDFT	Tue	Spanish calling and then followed by data bursts	(JS)
11530	17-5-2013	2300	HM01	AM/RDFT	Fri	34465 71674 07132 68264 96683 68526	(Dan)
16180	18-5-2013	2140	HM01	AM/RDFT	Sat	Cuban Intel YL/SS voice with digital numbers	(quan)
12180	23-5-2013	1000	HM01	AM/RDFT	Thu	34465 71674 07132 68264 76683 68526	(Dan)
11530	24-5-2013	2300	HM01	AM/RDFT	Fri	34465 71674 07132 68264 76683 68526	(Dan)
11530	29-5-2013	2300	HM01	AM/RDFT	Wed	34465 71674 07132 68264 76683 68526	(Dan)
11530	31-5-2013	2300	HM01	AM/RDFT	Fri	34467 71676 07134 68266 76685 43541	(Dan)
4905	2-5-2013	2000	M01	CW	Thu	025 813/30 = 08985	(HFD)
5280	2-5-2013	1800	M01	CW	Thu	025 510 30 = 05324	(HFD)
6780	5-5-2013	0700	M01	CW	Sun	025 ### 30 = 41898	(HFD)
6434	11-5-2013	1500	M01	CW	Sat	025 0#1 30 = 11811	(HFD)
4906	14-5-2013	2000	M01	CW	Tue	025 391 30, 16460 95985 53599 46352 16266 etc	(FYM)
5281	14-5-2013	1800	M01	CW	Tue	025 227 30, 46597 27519 83635 89622 29769 etc	(FYM)
5280	16-5-2013	1800	M01	CW	Thu	025 qsb 30, 90636 82872 57616 02298 75388 91370 etc	(FYM)

frequency	date	UTC	enigma	mode	day	remarks	contributor
9086	23-5-2013	1850	M01	CW	Thu	(ip)t9351(x2)== 786 786 34 34 ttt	(FMB)
5065	2-5-2013	1942	M01b	CW	Thu	936 786 34 = 24178 //5805	(HFD)
5095	2-5-2013	1832	M01b	CW	Thu	815 786 34 = 24178 //5760	(HFD)
5760	2-5-2013	1832	M01b	CW	Thu	815 786 34 = 24178 //5095	(HFD)
5805	2-5-2013	1942	M01b	CW	Thu	936 786 34 = 24178 //5065	(HFD)
5340	3-5-2013	2010	M01b	CW	Fri	467 786 34 = 24178	(HFD)
5465	3-5-2013	1902	M01b	CW	Fri	336 786 34 = 24178	(HFD)
5810	3-5-2013	1515	M01b	CW	Fri	158 632 30 = 80797	(HFD)
5125	21-5-2013	1810	M01b	CW	Tue	364 786 34 = 24178 //5735	(HFD)
5150	21-5-2013	1915	M01b	CW	Tue	858 786 34 = 24178 //5475	(HFD)
5475	21-5-2013	1915	M01b	CW	Tue	858 786 34 = 24178 //5150	(HFD)
5735	21-5-2013	1810	M01b	CW	Tue	364 786 34 = 24178 //5125	(HFD)
5940	30-5-2013	1510	M01b	CW	Thu	i.p. 39941 29595 58780 85551 82032 01302	(FYM)
7837	2-5-2013	1320	M03	CW	Thu	432 35 = 76154	(HFD)
6524	14-5-2013	1535	M03	CW	Tue	797/33 = 88299	(HFD)
6524	14-5-2013	1535	M03	CW	Tue	797/33 88299 50510 51621 85381 17636 etc	(FYM)
7837	14-5-2013	1115	M03	CW	Tue	272/00	(HFD)
6524	25-5-2013	1535	M03	CW	Sat	798/00	(FYM)
7541	1-5-2013	2120	M12	CW	Wed	258 0	(HFD)
9241	1-5-2013	2100	M12	CW	Wed	258 0	(HFD)
12126	1-5-2013	1540	M12	CW	Wed	344 1	(HFD)
13392	1-5-2013	1520	M12	CW	Wed	344 1	(HFD)
14492	1-5-2013	1500	M12	CW	Wed	344 1	(HFD)
8116	2-5-2013	1840	M12	CW	Thu	124 1	(HFD)
9264	2-5-2013	1820	M12	CW	Thu	124 1	(HFD)
10343	2-5-2013	1800	M12	CW	Thu	124 1	(HFD)
12126	4-5-2013	1330	M12	CW	Sat	919 0	(HFD)
12179	4-5-2013	2150	M12	CW	Sat	851 1 Note the "79"!	(HFD)
13569	4-5-2013	2130	M12	CW	Sat	851 1	(HFD)
13926	4-5-2013	1310	M12	CW	Sat	919 0	(HFD)
14869	4-5-2013	2110	M12	CW	Sat	851 1	(HFD)
6904	6-5-2013	1940	M12	CW	Mon	257 1 7220 75 30389	(FN)
7931	6-5-2013	1920	M12	CW	Mon	257 1 7220 75 30389	(FN)
9176	6-5-2013	1900	M12	CW	Mon	257 1 7220 75 30389	(FN)
11472	6-5-2013	1340	M12	CW	Mon	344 1 9868 149 59905	(FN)
13472	6-5-2013	1320	M12	CW	Mon	344 1 9868 149 59905	(FN)
14372	6-5-2013	1300	M12	CW	Mon	344 1 9868 149 59905	(FN)
7541	8-5-2013	2120	M12	CW	Wed	258 258 258 000	(FN)
9241	8-5-2013	2100	M12	CW	Wed	258 258 258 000	(FN)
12126	8-5-2013	1540	M12	CW	Wed	344 1 9868 149 59905	(FN)
12169	8-5-2013	2150	M12	CW	Wed	851 1 9425 133 40012	(FN)
13392	8-5-2013	1520	M12	CW	Wed	344 1 9868 149 59905	(FN)
13569	8-5-2013	2130	M12	CW	Wed	851 1 9425 133 40012	(FN)
14492	8-5-2013	1500	M12	CW	Wed	344 1 9868 149 59905	(FN)
14869	8-5-2013	2110	M12	CW	Wed	851 1 9425 133 40012	(FN)
7984	9-5-2013	0630	M12	CW	Thu	911 0	(HFD)
7984	9-5-2013	0630	M12	CW	Thu	911 911 911 000	(FN)
8116	9-5-2013	1840	M12	CW	Thu	124 1 3336 70 65488	(FN)
9184	9-5-2013	0650	M12	CW	Thu	911 0	(HFD)
9184	9-5-2013	0650	M12	CW	Thu	911 911 911 000	(FN)
9264	9-5-2013	1820	M12	CW	Thu	124 1 3336 70 65488	(FN)
10343	9-5-2013	1800	M12	CW	Thu	124 1 3336 70 65488	(FN)
12126	9-5-2013	1330	M12	CW	Thu	919 919 919 000	(FN)
13926	9-5-2013	1310	M12	CW	Thu	919 919 919 000	(FN)
12169	11-5-2013	2150	M12	CW	Sat	851 1 9425 133 40012	(FN)
13569	11-5-2013	2130	M12	CW	Sat	851 1 9425 133 40012	(FN)

frequency	date	UTC	enigma	mode	day	remarks	contributor
14869	11-5-2013	2110	M12	CW	Sat	851 1 9425 133 40012	(FN)
6904	13-5-2013	1740	M12	CW	Mon	257 1 7772 78 62146	(FN)
6904	13-5-2013	1840	M12	CW	Mon	257 1 6645 64 45534	(FN)
6904	13-5-2013	1940	M12	CW	Mon	257 1	(HFD)
6904	13-5-2013	1940	M12	CW	Mon	257 1 5775 73 83936	(FN)
7931	13-5-2013	1720	M12	CW	Mon	257 1 7772 78 62146	(FN)
7931	13-5-2013	1820	M12	CW	Mon	257 1 6645 64 45534	(FN)
7931	13-5-2013	1920	M12	CW	Mon	257 1	(HFD)
7931	13-5-2013	1920	M12	CW	Mon	257 1 5775 73 83936	(FN)
9176	13-5-2013	1700	M12	CW	Mon	257 1 [... 22347 07636 000 000	(JBL-HOL)
9176	13-5-2013	1700	M12	CW	Mon	257 1 7772 78 62146	(FN)
9176	13-5-2013	1800	M12	CW	Mon	257 1 6645 64 45534	(FN)
9176	13-5-2013	1900	M12	CW	Mon	257 1	(HFD)
9176	13-5-2013	1900	M12	CW	Mon	257 1 5775 73 83936	(FN)
11472	13-5-2013	1340	M12	CW	Mon	344 1	(HFD)
11472	13-5-2013	1340	M12	CW	Mon	344 1 6349 191 63995	(FN)
12162	13-5-2013	1600	M12	CW	Mon	546 1 ...	(FN)
13472	13-5-2013	1320	M12	CW	Mon	344 1	(HFD)
13472	13-5-2013	1320	M12	CW	Mon	344 1 6349 191 63995	(FN)
14372	13-5-2013	1300	M12	CW	Mon	344 1	(HFD)
14372	13-5-2013	1300	M12	CW	Mon	344 1 6349 191 63995	(FN)
8116	14-5-2013	1910	M12	CW	Tue	124 1	(HFD)
9264	14-5-2013	1850	M12	CW	Tue	124 1	(HFD)
10343	14-5-2013	1830	M12	CW	Tue	124 1	(HFD)
5788	15-5-2013	1740	M12	CW	Wed	463 1	(HFD)
5788	15-5-2013	1740	M12	CW	Wed	463 1 2520 97 04047	(FN)
6802	15-5-2013	1720	M12	CW	Wed	463 1	(HFD)
6802	15-5-2013	1720	M12	CW	Wed	463 1 2520 97 04047	(FN)
6841	15-5-2013	2140	M12	CW	Wed	258 1 519 89 05195	(FN)
7541	15-5-2013	2120	M12	CW	Wed	258 1 519 89 05195	(FN)
8047	15-5-2013	1700	M12	CW	Wed	463 1	(HFD)
8047	15-5-2013	1700	M12	CW	Wed	463 1 2520 97 04047	(FN)
9241	15-5-2013	2100	M12	CW	Wed	258 1 519 89 05195	(FN)
9327	15-5-2013	1910	M12	CW	Wed	938 1 3478 57 84737	(FN)
10598	15-5-2013	1850	M12	CW	Wed	938 1 3478 57 84737	(FN)
11435	15-5-2013	1830	M12	CW	Wed	938 1 3478 57 84737	(FN)
12126	15-5-2013	1540	M12	CW	Wed	344 1 6349 191 63995	(FN)
12179	15-5-2013	2150	M12	CW	Wed	851 1 9676 75 98928	(FN)
13392	15-5-2013	1520	M12	CW	Wed	344 1 6349 191 63995	(FN)
13392	15-5-2013	1520	M12	CW	Wed	344 1 6349 191á63995 22183...52704 000 000	(JBL)
13569	15-5-2013	2130	M12	CW	Wed	851 1 9676 75 98928	(FN)
14492	15-5-2013	1500	M12	CW	Wed	344 1 6349 191 63995	(FN)
14869	15-5-2013	2110	M12	CW	Wed	851 1 9676 75 98928	(FN)
6904	16-5-2013	1740	M12	CW	Thu	257 1	(HFD)
6904	16-5-2013	1740	M12	CW	Thu	257 1 5596 95 61185	(FN)
6904	16-5-2013	1940	M12	CW	Thu	257 1 5681 69 09637	(FN)
7931	16-5-2013	1720	M12	CW	Thu	257 1	(HFD)
7931	16-5-2013	1720	M12	CW	Thu	257 1 5596 95 61185	(FN)
7931	16-5-2013	1920	M12	CW	Thu	257 1 5681 69 09637	(FN)
7984	16-5-2013	0630	M12	CW	Thu	911 911 911 000	(FN)
8116	16-5-2013	1740	M12	CW	Thu	124 1	(HFD)
8116	16-5-2013	1740	M12	CW	Thu	124 1 4675 74 91041	(FN)
8116	16-5-2013	1840	M12	CW	Thu	124 1 7823 78 78190	(FN)
9176	16-5-2013	1700	M12	CW	Thu	257 1	(HFD)
9176	16-5-2013	1700	M12	CW	Thu	257 1 5596 95 61185	(FN)
9176	16-5-2013	1700	M12	CW	Thu	257 257 257 5596 1	(FYM)

frequency	date	UTC	enigma	mode	day	remarks	contributor
9176	16-5-2013	1900	M12	CW	Thu	257 1 5681 69 09637	(FN)
9184	16-5-2013	0650	M12	CW	Thu	911 911 911 000	(FN)
9264	16-5-2013	1720	M12	CW	Thu	124 1	(HFD)
9264	16-5-2013	1720	M12	CW	Thu	124 1 4675 74 91041	(FN)
9264	16-5-2013	1820	M12	CW	Thu	124 1 7823 78 78190	(FN)
10343	16-5-2013	1700	M12	CW	Thu	124 1	(HFD)
10343	16-5-2013	1700	M12	CW	Thu	124 1 4675 74 91041	(FN)
10343	16-5-2013	1702	M12	CW	Thu	124 124 124 1	(FYM)
10343	16-5-2013	1800	M12	CW	Thu	124 1 7823 78 78190	(FN)
10926	16-5-2013	1350	M12	CW	Thu	919 1 1992 117 66964	(FN)
10926	16-5-2013	1350	M12	CW	Thu	919 919 919	(FYM)
12126	16-5-2013	1330	M12	CW	Thu	919 1 1992 117 66964	(FN)
13926	16-5-2013	1310	M12	CW	Thu	919 1 1992 117 66964	(FN)
8116	17-5-2013	1840	M12	CW	Fri	124 1 1051 84 06596	(FN)
9264	17-5-2013	1820	M12	CW	Fri	124 1 1051 84 06596	(FN)
10343	17-5-2013	1800	M12	CW	Fri	124 1 1051 84 06596	(FN)
6857	20-5-2013	0430	M12	CW	Mon	850 850 850 000	(FN)
6904	20-5-2013	1740	M12	CW	Mon	257 1 8954 70 96091	(FN)
6904	20-5-2013	1840	M12	CW	Mon	257 1 7747 65 99949	(FN)
6904	20-5-2013	1940	M12	CW	Mon	257 1 7780 80 96829	(FN)
7931	20-5-2013	1720	M12	CW	Mon	257 1 8954 70 96091	(FN)
7931	20-5-2013	1820	M12	CW	Mon	257 1 7747 65 99949	(FN)
7931	20-5-2013	1920	M12	CW	Mon	257 1 7780 80 96829	(FN)
9176	20-5-2013	1700	M12	CW	Mon	257 1 8954 70 96091	(FN)
9176	20-5-2013	1800	M12	CW	Mon	257 1 7747 65 99949	(FN)
9176	20-5-2013	1900	M12	CW	Mon	257 1 7780 80 96829	(FN)
10711	20-5-2013	1640	M12	CW	Mon	546 1 6548 96 73881	(FN)
11472	20-5-2013	1340	M12	CW	Mon	344 1 8188 139 57453	(FN)
11472	20-5-2013	1340	M12	CW	Mon	344 344 344 1 8188 139 8188 139 57453 98344 10939 17151 47521 83319 36367 58030 16986 81514 … 51379 000 000	(JU)
11566	20-5-2013	1620	M12	CW	Mon	546 1 6548 96 73881	(FN)
12162	20-5-2013	1600	M12	CW	Mon	546 1 6548 96 73881	(FN)
13472	20-5-2013	1320	M12	CW	Mon	344 1 8188 139 57453	(FN)
13472	20-5-2013	1320	M12	CW	Mon	344 344 344 1 8188 139 8188 139 57453 98344 10939 17151 47521 83319 36367 58030 16986 81514 … 51379 000 000	(JU)
14372	20-5-2013	1300	M12	CW	Mon	344 1 8188 139 57453	(FN)
6857	21-5-2013	0430	M12	CW	Tue	850 0	(HFD)
7557	21-5-2013	0450	M12	CW	Tue	850 0	(HFD)
8116	21-5-2013	1910	M12	CW	Tue	124 1 8356 68 01757	(FN)
9264	21-5-2013	1850	M12	CW	Tue	124 1 8356 68 01757	(FN)
10343	21-5-2013	1830	M12	CW	Tue	124 1 8356 68 01757	(FN)
10711	21-5-2013	1640	M12	CW	Tue	546 1	(HFD)
11561	21-5-2013	1620	M12	CW	Tue	546 1	(HFD)
12162	21-5-2013	1600	M12	CW	Tue	546 1	(HFD)
5788	22-5-2013	1740	M12	CW	Wed	463 1 1915 98 93553	(FN)
6802	22-5-2013	1720	M12	CW	Wed	463 1 1915 98 93553	(FN)
7541	22-5-2013	2120	M12	CW	Wed	258 258 258 000	(FN)
8047	22-5-2013	1700	M12	CW	Wed	463 1 1915 98 93553	(FN)
9241	22-5-2013	2100	M12	CW	Wed	258 258 258 000	(FN)
9327	22-5-2013	1910	M12	CW	Wed	938 1	(HFD)
9327	22-5-2013	1910	M12	CW	Wed	938 1 5636 64 25651	(FN)
10598	22-5-2013	1850	M12	CW	Wed	938 1	(HFD)
10598	22-5-2013	1850	M12	CW	Wed	938 1 5636 64 25651	(FN)
11435	22-5-2013	1830	M12	CW	Wed	938 1	(HFD)
11435	22-5-2013	1830	M12	CW	Wed	938 1 5636 64 25651	(FN)
12126	22-5-2013	1540	M12	CW	Wed	344 1 8188 139 57453	(FN)

frequency	date	UTC	enigma	mode	day	remarks	contributor
12179	22-5-2013	2150	M12	CW	Wed	851 1 2422 93 01629	(FN)
13392	22-5-2013	1520	M12	CW	Wed	344 1 8188 139 57453	(FN)
13569	22-5-2013	2130	M12	CW	Wed	851 1 2422 93 01629	(FN)
14492	22-5-2013	1500	M12	CW	Wed	344 1 8188 139 57453	(FN)
14869	22-5-2013	2110	M12	CW	Wed	851 1 2422 93 01629	(FN)
6904	23-5-2013	1740	M12	CW	Thu	257 1 8062 91 42735	(FN)
6904	23-5-2013	1940	M12	CW	Thu	257 1 3342 68 52620	(FN)
7931	23-5-2013	1720	M12	CW	Thu	257 1 8062 91 42735	(FN)
7931	23-5-2013	1920	M12	CW	Thu	257 1 3342 68 52620	(FN)
7984	23-5-2013	0630	M12	CW	Thu	911 911 911 000	(FN)
8116	23-5-2013	1740	M12	CW	Thu	124 1 1049 74 66064	(FN)
8116	23-5-2013	1840	M12	CW	Thu	124 1 3340 93 01809	(FN)
9176	23-5-2013	1700	M12	CW	Thu	257 1 8062 91 42735	(FN)
9176	23-5-2013	1900	M12	CW	Thu	257 1 3342 68 52620	(FN)
9184	23-5-2013	0650	M12	CW	Thu	911 911 911 000	(FN)
9264	23-5-2013	1720	M12	CW	Thu	124 1 1049 74 66064	(FN)
9264	23-5-2013	1820	M12	CW	Thu	124 1 3340 93 01809	(FN)
10343	23-5-2013	1700	M12	CW	Thu	124 1 1049 74 66064	(FN)
10343	23-5-2013	1800	M12	CW	Thu	124 1 3340 93 01809	(FN)
12126	23-5-2013	1330	M12	CW	Thu	919 919 919 000	(FN)
13926	23-5-2013	1310	M12	CW	Thu	919 919 919 000	(FN)
8116	24-5-2013	1840	M12	CW	Fri	124 1 209 51 49336	(FN)
9264	24-5-2013	1820	M12	CW	Fri	124 1 209 51 49336	(FN)
10343	24-5-2013	1800	M12	CW	Fri	124 1 209 51 49336	(FN)
12126	25-5-2013	1330	M12	CW	Sat	919 919 919 000	(FN)
12179	25-5-2013	2150	M12	CW	Sat	851 1 2422 93 01629	(FN)
13569	25-5-2013	2130	M12	CW	Sat	851 1 2422 93 01629	(FN)
13926	25-5-2013	1310	M12	CW	Sat	919 919 919 000	(FN)
13926	25-5-2013	1310	M12	CW	Sat	919 919 919 000	(FYM)
14869	25-5-2013	2110	M12	CW	Sat	851 1 2422 93 01629	(FN)
6856	14-5-2013	1820	M14	CW	Tue	163 265 15 = 53675	(HFD)
5936	15-5-2013	1920	M14	CW	Wed	417	(HFD)
11487	22-5-2013	0600	M14	CW	Wed	534(R3) 89t 89t 62 62 == 94t52(x2)...	(FMB)
8166	29-5-2013	1836	M14	CW	Wed	(ip) ... 65328== 924 924 63 63 ttttt	(FMB)
4073	2-5-2013	1514	M18	CW	Thu	1918 1918 etc.	(JPL-Sib)
4073	3-5-2013	1953	M18	CW	Fri	0156 0156 0156 0157 etc.	(AB)
4073	5-5-2013	2059	M18	CW	Sun	Russian Military Time marker 0059 0059	(VL)
4503	20-5-2013	1753	M18	CW	Mon	0411 0411 0411 ... etc.	(JPL-Sib)
4503	20-5-2013	1926	M18	CW	Mon	0543 0543 0543 ... etc.	(FN)
4503	22-5-2013	1209	M18	CW	Wed	0419 0419 etc.	(JPL-Sib)
4503	23-5-2013	2014	M18	CW	Thu	0015 0015 0015 etc.	(AB)
4503	24-5-2013	1125	M18	CW	Fri	1726 1727 1727 etc.	(AB)
5752	6-5-2013	2027	M21	CW	Mon	Russian Air Defence =992327??8?????	(MPJ)
5752	12-5-2013	2011	M21	CW	Sun	Russian Air Defence =990011??8????? etc.	(MPJ)
4331	21-5-2013	2019	M21	CW	Tue	4XZ: IN Haifa ISR 2019 CW = VVV DE 4XZ 4XZ =	(WP3)
4595	21-5-2013	2015	M21	CW	Tue	4XZ: IN Haifa ISR 2015 CW = VVV DE 4XZ 4XZ =	(WP3)
4987.5	31-5-2013	1646	M21	CW	Fri	=991646?T?????	(Token)
4594	4-5-2013	2357	M22	CW	Sat	4XZ IDF/Israeli Navy Haifa ISR VVV DE 4XZ	(LG2)
2860	5-5-2013	0130	M22	CW	Sun	4XZ IDF/Israeli Navy Haifa ISR 32EO4MW DT9M GEN 03 ==A R AR VVV DE 4XZ 4XZ	(LG2)
4331	5-5-2013	0024	M22	CW	Sun	4XZ IDF/Israeli Navy Haifa ISR i.p. 5LGs== NR IUEEJ1 C V NK2D 53224DTEM GR 03 =VVV DE 4XZ=	(LG2)
4331	20-5-2013	1945	M22	CW	Mon	4XZ Haifa. VVV DE 4XZ =	(AB)
7668	16-5-2013	1804	M23	CW	Thu	747	(FMB)
5410	13-5-2013	1830	M24	CW	Mon	441 9t5 62==39254...	(FMB)
8116	13-5-2013	1812	M24	CW	Mon	ip	(FMB)

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9073	14-5-2013	1453	M24	CW		Tue	ip...ttttt	(FMB)
8095	17-5-2013	1843	M24	CW		Fri	(ip) ==956 956 1t3 1t3 ttttt	(FMB)
8098	24-5-2013	1838	M24	CW		Sat	.. 92624 22650 = 902 116 00000	(FN)
8099	24-5-2013	1845	M24	CW		Fri	i(ip)== 9t2 9t2 116 116 ttttt	(FMB)
5410	27-5-2013	1830	M24	CW		Mon	441 832 67 182.2 ...	(FMB)
8116	27-5-2013	1800	M24	CW		Mon	441 832 67 182.2 ...	(FMB)
5380	28-5-2013	1830	M24	CW		Tue	441 832 67 182.2 ...	(FMB)
7041	2-4-2013	1823	M32	CW			A9XR de 7NWN QTC	(IARUMS)
7117.5	4-4-2013	1903	M32	CW			N5GU de FFQN K.	(IARUMS)
18107	9-4-2013	0956	M32	CW			RDL F1A RDL 65673 03711 k	(IARUMS)
7041	10-4-2013	1701	M32	CW			7NWN C K	(IARUMS)
21057	14-4-2013	1325	M32	CW			KUMOL 6864 8524 K	(IARUMS)
18107	15-4-2013	0841	M32	CW			RGT77 F1A XXX RGT77 42501 00936 GWAuLOWYJ	(IARUMS)
18107	15-4-2013	0856	M32	CW			RDL F1A XXX RDL 38667 69266 DEREWaNNYJ	(IARUMS)
3334	30-4-2013	2250	M32	CW			4XEO wkg H1WB	(BCI)
10457	1-5-2013	0852	M32	CW		Wed	= 19125 ...... 45567 25523 93678 .2090 .62.8 09507 67854 57090 01010 AR	(JPL-FNL)
8622	4-5-2013	1939	M32	CW		Sat	Russian mil. D6N6 de 1MBT QTC ZOD => 1MBT 018 80 4 2330 018 = ZOD 998 = 16565	(PPA)
5144	5-5-2013	1906	M32	CW		Sun	KYDF: Russian Mil. Comms checks with at least ...8, 6PEC & S3IK	(MPJ)
14411	5-5-2013	1711	M32	CW		Sun	RDL Russian Navy Smolensk I/p 5FGs ?3577 54783 TGE93T95116 58823 4491MT E 87748 92748 26 K	(LG2)
4419	6-5-2013	1901	M32	CW		Mon	MVSL: Russian Mil. 5LGs in progress. chKO.– VSSLH ... MVSL = chJLQ. chGchEI. MVSL = chGEOH LMÍGI ... (ends) 465 RPT AL K. MVSL C K.	(MPJ)
4419	6-5-2013	1908	M32	CW		Mon	MVSL: Russian Mil. MWND de MVSL QTC K. MVSL 501 19 2206 501 = 206 = SWZEP MMMMM SAKWV chAMME UchVYJ ... YTBCX IXM–M SAKWV chWVMV PYP–Y _65 RPT AL K. MVSL C K.	(MPJ)
6846	6-5-2013	2000	M32	CW		Mon	Russian Mil. ZJJ4 de OLVR K. R K	(MPJ)
8138	6-5-2013	2008	M32	CW		Mon	5QE8: Russian Mil. ... ZDG ZNV ZNX ZNR ZNC ZNN QSW3 K. OK AS. 5QE8 R K	(MPJ)
8138	6-5-2013	2010	M32	CW		Mon	Russian Mil. MWDH K.	(MPJ)
4085	7-5-2013	1701	M32	CW		Tue	R K R K. N K. R K. 3IY6 3IY6 QTC AA. 3IY6 002 7 31 00 002 = 0280 = DDDDD KHK.. (ContÆd)	(JPL-Sib)
5838	7-5-2013	1401	M32	CW		Tue	i.p. PO RAJONAM 67 68 73 GU... PO RAJONAM 672 673 674 675 K (Into scrambler mode)	(JPL)
7588	7-5-2013	1405	M32	CW		Tue	XXX XXX HIEL HIEL GUBKA 2 PO RAJONAM 67 68 73 GUBKA 3 PO RAJONAM 672 673 674 675 K	(JPL)
7633	7-5-2013	1408	M32	CW		Tue	18 719 ITI6 655 18 7 17 50 655 K. 0EEE ITI6 = T56K ITI6 = PPPPP BOHGR K	(JPL)
10984	7-5-2013	1814	M32	CW		Tue	BHOS wkg CPLH. QTC ZDX .. 4 61672 JE T6946 = ZDX 888 = PPPPP K	(LG2)
10984	7-5-2013	1824	M32	CW		Tue	PSGI wkg NZ3G BHSM 1ISR J2VA 7SBL as soon as BHOS traffic ended	(LG2)
6184	9-5-2013	1356	M32	CW		Thu	DE YXNF K. R K. S.2 DE YXNF K. .PLN DE YXNF K. H3FK DE YXNF K. R K	(JPL-FNL)
10428	9-5-2013	1402	M32	CW		Thu	7TDZ DE 1XKN QSA ? K. QSA 3 K. R K. E5WM DE 1XKN QSA ? K (see N&O 188)	(JPL-FNL)
10535	9-5-2013	1347	M32	CW		Thu	XXX XXX WEGI WEGI 76688 20187 BEZLESXE 7518 1.52 K	(JPL-FNL)
5157	11-5-2013	1545	M32	CW		Sat	i.p. 99189 .0142 16393 .6573 32750 58113 06740 ..54 .605. 81242 12108 K. NF.X R 738 K. RPT K. NF4X R 738 K. V RPT K	(JPL-FNL)
7639	11-5-2013	1528	M32	CW		Sat	XXX XXX WEGI WEGI 19854 TURNE 3564 8.95 LANODOPA 6485 3390 K	(JPL-FNL)
8131	11-5-2013	1534	M32	CW		Sat	XXX XXX WEGI WEGI 19854 TURNE 3564 8.95 LANODOPA 6485 3390 K	(JPL-FNL)
4419	12-5-2013	2006	M32	CW		Sun	EAVA: Russian Military NCS comms check with at least KAMZ, S7ET and 6NSD.	(MPJ)

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5596	12-5-2013	2020	M32	CW	Sun	LUXD: Russian Mil NCS MV2V (collective) QTC AR (rptd) MV2V QTC 970 26 13 0020 970 = 043 = euarg zecuc eizic gi÷hc ÷ihic ... rpt qln k	(MPJ)
5596	12-5-2013	2020	M32	CW	Sun	LUXD: Russian Military NCS Nr 811 5LG msg i.p. zeuaz euz÷i zduzk zpn÷e rzdip etc. (contains very many Zs) ... acdue zarkz geark caczg õepwt rpt qln k. Requests QSL from LOZI and PVAN.	(MPJ)
8345	13-5-2013	1820	M32	CW	Mon	Russian Navy AO Lena. rcv de rko81 517 20 13 2200 517 = for rjh45 rjd38 rje73 = 13181 99359 10182 41698 23108 10200 40106 52027 70100 82120 22263 00190 29904 30000 88000 80000 13016 = + rko81 k	(WP3)
8816	13-5-2013	----	M32	CW	Mon	Russian Naval Air Transport. rjf94 rcb de 63182 qto 0737 qrd XLLV XMKK qre 1030 qah 5800 qbd 4400 k - qth 5836 2058 qtr 0830 qah 5200 qbd 3200 k - qth 6003 2700 qtr 0934 qal XLLV 1002 qah 5800 qbd 2500 k - qqm XLLV 1007 sk	(WP3)
8816	13-5-2013	----	M32	CW	Mon	Russian Naval Air Transport. rjf94 rcb de 63182 qto 1225 qrd XUMO XLLV qre 1425 qah 5800 qbd 4400 k	(WP3)
8816	13-5-2013	----	M32	CW	Mon	Russian Naval Air Transport. rjf94 rjc38 de 10492 qto 0641 qrd XLWF XLMV qre 0900 qbd 13500 - qql ULPE 0740 qbg 3950 k - qay XLPB 0815 qre XLWF 0900 k - qqm XLWF 0859 sk	(WP3)
8816	13-5-2013	----	M32	CW	Mon	Russian Naval Air Transport. rjf94 rjc38 de 10492 qto 1031 qrd XUMO XLWF qre 1135 qbd 16000 k - qqm XUMO 1140 sk	(WP3)
9134	13-5-2013	0504	M32	CW	Mon	DPKQ: Russian Mil.	(BCI)
7813	14-5-2013	0557	M32	CW	Tue	DPZM: Russian Mil.	(BCI)
7817	17-5-2013	0631	M32	CW	Fri	Russian Mil. XXX XXX XXX 5J7Q 5J7Q 39506 PRIPE TATKA 6866 3070 K	(BCI)
6831	20-5-2013	1104	M32	CW	Mon	L43R DE MP8W QSA? K. NTJB DE MP8W QSA? K. MP8W DE NTJB K. QSA? K. QSA3 K. QSA3 QAP K. OK QAP K	(JPL-Sib)
12741	20-5-2013	1342	M32	CW	Mon	XXX XXX RGT77 RGT77 77969 31385 UDERV 1172 4552 SDE-LOOeNYJ 1474 1186	(JU)
14842	20-5-2013	1333	M32	CW	Mon	XXX XXX RGT77 RGT77 31385 UDERV 1172 4552 SDELOOeNYJ 1474 1186	(JU)
14842	20-5-2013	1333	M32	CW	Mon	XXX XXX VN6B VN6B 1QRF 1QRF 82130 'EDEREN 2902 2618	(JU)
7005	21-5-2013	1930	M32	CW	Tue	Russian Mil. PBUAD UKZCM −J.KX = K	(IARUMS)
7779.5	21-5-2013	1649	M32	CW	Tue	Russian Mil. BQ1C DE VI4B K K QSS3 QSA K	(BCI)
9148	21-5-2013	1109	M32	CW	Tue	Russian mil. nh4v nh4v nh4v de cfpv cfpv qls qyt4 k	(WP3)
5226	23-5-2013	2004	M32	CW	Thu	ESAE: Russian Mil.	(BCI)
7011	30-5-2013	1849	M32	CW	Thu	Russian Mil. GIV6 de C67Z K	(IARUMS)
4303	31-5-2013	1726	M32	CW	Fri	Russian Mil simplex channel i.p. QTC2 K. QRV K. H9WP 774 48 31 1000 774 = AAAAA BBBBB ZZZHH HGGGH HHWWW \O\O\OTT T\U\U\UQ QQNNN KVSAS (ConÆt). (The / before a letter denotes a "barred letter")	(JPL-FNL)
8345	31-5-2013	2017	M32	CW	Fri	Russian Mil. RCV DE RHL80 QL. 7F3 K. RCV DE RHL80 QLL 753 K. RHL80 AS? RHL80 QRW K	(JPL-FNL)
14108	31-5-2013	0821	M32	CW	Fri	Russian Mil. GPVD de QRDO QBE QYT9 k. GPVD de 1R9D QYT9 k	(IARUMS)
14108	31-5-2013	1017	M32	CW	Fri	Russian Mil. QLMQ de QRDO QBE QYT6 k. QLMQ de QRDO QYT9 k	(IARUMS)
21438	12-4-2013	0838	M32a	CW		RCV bulletin	(IARUMS)
21438	15-4-2013	1322	M32a	CW		RKZ DE RCV 834 157 15 1526 834 =	(IARUMS)
8345	1-5-2013	0545	M32a	CW	Wed	Russian Navy. rcv de rhl80 qyt4 qsx 9852 k - qyt4 qsx 9192 k - qyt4 qsx 9192 k - qyt4 qsa no k	(WP3)
8345	1-5-2013	0602	M32a	CW	Wed	Russian Navy AO Lena. rcv de rko81 869 20 2 1000 869 = for rjh45 rjd38 rje73 = 02061 99363 10351 41998 20303 10230 40079 54000 70200 82021 22200 00210 20000 30000 88000 80000 02016 = + rko81 k	(WP3)
8345	1-5-2013	0605	M32a	CW	Wed	Russian Navy AO Lena. rcv de rko81 794 20 1 1000 794 = for rjh45 rjd38 rje73 = 01061 99363 10351 41998 10003 10350 40106 54000 70200 81030 22200 00220 20000 30000 88000 80000 01016 = + rko81 k	(WP3)
8345	1-5-2013	2158	M32a	CW	Wed	VVV RCV DE RBES QSA? QTC. RBES 588 87 2 0150 588 = FOR	(TR2)

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						RMP = 11111 36273 87008 22294 (continues)	
12464	1-5-2013		M32a	CW	Wed	Russian Navy Tug Sliva (SB-921). rcv de rbes qsa 2 qrv k - qsl 867 k - 1042z 937 28 1 1438 937 = sml for rmp = 11111 86032	(WP3)
12464	1-5-2013	0810	M32a	CW	Wed	Russian Navy LS Azov. rcv de rir96 qru ?	(WP3)
8345	2-5-2013	0002	M32a	CW	Thu	VVV RCV DE RKO81 QSA? QTC. RKO81 455 20 2 0400 455 = FOR RJH45 RJD38 RJE73 = 02001 99363 10351 22200	(TR2)
8345	2-5-2013	1802	M32a	CW	Thu	RCV DE RKO QSA? QTC. RKO81 50? 20 2 2200 50? = FOR RJH45 RJD38 RJE73 = (2182) 99363 10351 222??(faded so not found)	(TR2)
8345	3-5-2013	0003	M32a	CW	Fri	VVV RCV DE RKO81 QSA? QTC. RKO81 552 20 3 0400 552 = FOR RJH45 RJD38 RJE73 = 03001 99363 10351 22200	(TR2)
7861	5-5-2013	0110	M32a	CW	Sun	Russian Navy NCS RUS TR BL71A BL71A RAL2 IRAL2 QSA?K	(LG2)
12464	6-5-2013	0808	M32a	CW	Mon	Russian Navy VAdm Kulakov (400) "riw de rgr35 186 17 6 1200 186 = 02053 63003 41402. 00001 01218 41012. 00002 01218 _0012. 00005 01218 70018. 00006 01218 60037. 00102 ar rgr35 k"	(WP3)
8345	7-5-2013	1811	M32a	CW	Tue	Russian Navy AO Lena. rmp de rko81 442 20 7 2200 442 = for rjh45 rjd38 rje73 = 07181 99345 10310 41697 43004 10220 40079 57006 70312 85421 22272 00220 29901 30000 88000 80000 07016 = + rko81 k	(WP3)
8345	7-5-2013	1811	M32a	CW	Tue	Russian Navy Tug Sliva (SB-921). rcv de rbes 337 33 7 0020 337 = for rmp rcv = 11111 81863 74022 97486 22094	(WP3)
4245	8-5-2013	1645	M32a	CW	Wed	Russian Navy. REO DE RMP QTC 889 158 8 1958 889 = SML = PROGNOZ POGODY S 18 æLSTOW 09 MAÆA DO 18 GASOW 11 MAÆA BALTIJSKOE MORE	(JPL-FNL)
4527	8-5-2013	1803	M32a	CW	Wed	Russian Navy net (see N&O 188)	(JPL-FNL)
8345	8-5-2013	1809	M32a	CW	Wed	Russian Navy AO Lena. rcv de rko81 478 20 8 2200 478 = for rjh45 rjd38 rje73 = 08181 99359 10253 41698 62701 10200 40099 54000 70352 8652/ 22273 00210 29901 30000 88000 80000 08016 = + rko81 k	(WP3)
9192	8-5-2013	1619	M32a	CW	Wed	RCV Russian Navy Sevastapol 5LGs	(LG2)
8345	13-5-2013	1836	M32a	CW	Mon	RIT DE RGR35 QYT4 QSA?. RGR35 OK QYT4 QSX 15468. RIT DE RGR35 QYT4 QSA? (lots of test tones)	(TR2)
8345	16-5-2013	0003	M32a	CW	Thu	VVV RCV DE RKO81 QSA? QTC. RKO81 389 20 16 0400 389 = FOR RJH45 RJD38 RJE73 = 16001 99358 10148 22200	(TR2)
8345	16-5-2013	1805	M32a	CW	Thu	Russian Navy AO Lena. rcv de rko81 262 20 16 2200 262 = for rjh45 rjd38 rje73 = 16181 99358 10148 42597 62506 10200 49986 52008 74444 86811 22200 00180 29903 312// 88000 80000 16016 = + rko81 k	(WP3)
12464	16-5-2013	1805	M32a	CW	Thu	Russian Navy. rit de ral46 - riw de ral46 144 18 16 2110 144 = for ___ ___ 16181 99673 10087 41497 71604 10100 40100 51028 73222 76// 72253 4___1 313// 40__2 5//// 16015 ? + ral46 k	(WP3)
8345	17-5-2013	1808	M32a	CW	Fri	Russian Navy AO Lena. rcv de rko81 241 20 14 2200 241 = for rjh45 rjd38 rje73 = 14181 99358 10148 41998 22305 10190 40132 54000 70200 82011 22200 00190 29901 330// 88000 80000 14016 = + rko81 k	(WP3)
12464	17-5-2013	0715	M32a	CW	Fri	Russian Navy. rcv de rfe70 qyt4 qwh 11836/13775	(WP3)
8345	18-5-2013	0605	M32a	CW	Sat	Russian Navy AO Lena. rcv de rko81 571 20 18 1000 571 = for rjh45 rjd38 rje73 = 18061 99358 10148 41997 10604 10190 40119 53024 71010 81001 22200 00180 20000 339// 88000 80000 18016 = + rko81 k	(WP3)
12464	19-5-2013	1022	M32a	CW	Sun	RIW DE RGR35 OK QYT9 QCM. VVV RIW DE RGR35 QSA?. RIW DE RGR35 OK RGR35 QYT4	(TR2)
8345	21-5-2013	1928	M32a	CW	Tue	Russian Navy unid RUS 1928 CW rcv de rfe70 qyt4 qsx 3358	(WP3)
11000	21-5-2013	0535	M32a	CW	Tue	Russian Navy HQ Moscow. rgr35 de raa ok	(WP3)
12464	21-5-2013	1716	M32a	CW	Tue	Russian Navy. rit de ral46 356 17 21 2115 356 = for rjh74 rjh45 = 21181 99667 10082 41196 91708 10090 40011 84001 74344 89/// 22213 20401 318// 41002 21014 = + ral46	(WP3)
12464	21-5-2013	1800	M32a	CW	Tue	Russian Navy VA Kulakov. vvv raa raa raa de rgr35 rgr35 qsa? k	(WP3)
12464	21-5-2013	1916	M32a	CW	Tue	Russian Navy. rcv de rir96 qyt4 qsa? k - ok qyt4 qls k	(WP3)

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12464	22-5-2013	0529	M32a	CW	Wed	Russian Navy VA Kulakov. vvv raa de rgr35 qyt4 qls k	(WP3)
12464	22-5-2013	0535	M32a	CW	Wed	Russian Navy. rcv de rhy47 qyt4 qsa? k	(WP3)
10904	24-5-2013	1643	M32a	CW	Fri	Russian Navy. RGV82 DE RIW K	(JPL-Sib)
8345	25-5-2013	0008	M32a	CW	Sat	RKO81 903 2 25 0400 903 = FOR RJH45 RJD38 RJE73 = 25001 99353 10195 22233	(TR2)
8345	25-5-2013	0107	M32a	CW	Sat	RCV DE RFX56	(TR2)
12464	25-5-2013	1631	M32a	CW	Sat	VVV RCV DE RIR96 QSA? VVV RCV DE RKO81 QSA? QTC. RKO81 608 20 25 2200 608 = FOR RJH45 RJD38 RJE73 = 25181 99347 10226 22232	(TR2)
8345	26-5-2013	0002	M32a	CW	Sun	VVV RCV DE RKO81 QSA? QTC. RKO81 650 20 26 0400 650 = FOR RJH45 RJD38 RJE73 = 25002 99346 10237 22232	(TR2)
8345	28-5-2013	0602	M32a	CW	Tue	Russian Navy AO Lena. rcv de rko81 853 20 28 1000 853 = for rjh45 rjd38 rje73 = 28121 99357 10326 41998 23402 10230 40106 54000 70200 82070 22212 00200 29902 330// 88000 80000 28016 = + rko81 k	(WP3)
8816	15-5-2013	1924	M32b	CW	Wed	RJD94 RCB DE 63182 QTC QQM XMDK 1923 RPT	(TR2)
8816	17-5-2013	----	M32b	CW	Fri	Russian Naval Air Transport. rjf94 rjc38 de 10492 qto 0600 qrd XUMO XRKE qre 0830 qbd 17000 k - qth 4932 4028 qtr 0656 qbg 7300 k - qth 5223 3856 qtr 0734 qre XUMO 0820 k - qqm XUMO 0820 sk	(WP3)
8816	17-5-2013	----	M32b	CW	Fri	Russian Naval Air Transport. rjf94 rjc38 de 10492 qto 1030 qrd XLMV XUMO qre 1340 qbd 13500 k - qql ULWC 1131 qbg 3950 k - qql ULPE 1240 qbd 8000 qre XLMV 1345 k - qqm xlmv 1353 sk	(WP3)
12464	17-5-2013	0609	M32b	CW	Fri	Russian Navy AO Lena. rcv de rko81 222 20 17 1000 222 = for rjh45 rjd38 rje73 = 17061 99358 10148 41997 63110 10180 40520 52013 70342 86010 22200 00180 29903 399// 88000 80000 17016 = + rko81 k	(WP3)
8816	18-5-2013	0755	M32b	CW	Sat	Russian Naval Air Transport. rjf94 rjc38 de 52860 qto 0740 qrd XLLP XLMV qbd 4900 qre 1040 k - qql ULPE 0849 qbg 6100 k - qth 6112 3224 qtr 0950 qre XLLP 1035 k - qqm XLLP 1036 sk	(WP3)
8816	19-5-2013	1215	M32b	CW	Sun	Russian Naval Air Transport. rjf94 rjc38 de 52860 qto 1200 qrd XLMV XLLP qbd 4900 qre 1500 k - qql XLPB 1300 qbg 5500 k - qth 6622 3334 qtr 1400 qre XLMV 1500 k	(WP3)
8816	23-5-2013	1110	M32b	CW	Thu	Russian Naval Aviation. rjf94 rjc38 de 75100 qay ULPB 1106 qbd 9200 qre XLWF 1155 k	(WP3)
8816	23-5-2013	1155	M32b	CW	Thu	Russian Naval Aviation. rjf94 rjc38 de 52851 qay XLPB 1143 qre XLWF 1240 k	(WP3)
8816	24-5-2013	0628	M32b	CW	Fri	Russian Naval Aviation. rjf94 rcb de 63182 qto 0614 qrd XUMO XRKA qre 0930 qah 5500 qbd 4800 k - qay XRRI 0723 qah 5500 qbd 3800 k - qay XUWL 0820 qal XUMO 0901 qah 5500 qbd 3000 k - qqm XUMO 0903 sk	(WP3)
8816	24-5-2013	0738	M32b	CW	Fri	Russian Naval Aviation. rjf94 rjc38 de 10492 qto 0731 qrd XLWF XLMV qre 0950 qbd 13500 k - qql ULPE 0830 qbg 7000 k - qay XLPB 0909 qre XLWF 0955 k - qqm XLWF 0941 sk	(WP3)
8816	24-5-2013	1110	M32b	CW	Fri	Russian Naval Aviation. rjf94 rjc38 de 10492 qto 1101 qrd XLLV XLWF qre 1230 qbd 16000 k - qql ULST 1143 qbg 6100 qre XLLV 1225 k - qqm XLLV 1221 sk	(WP3)
8816	24-5-2013	1544	M32b	CW	Fri	Russian Naval Aviation. rjf94 rjc38 de 10492 qto 1536 qrd XLMV XLLV qre 1750 qbd 13000 k - qql XLPB 1621 qbg 3950 k - qql ULPE 1701 qre XLMV 1755 k - qqm XLMV 1758 sk	(WP3)
8816	24-5-2013	1725	M32b	CW	Fri	Russian Naval Aviation. rjf94 rjc38 de 52581 qto 0720 qrd XUMO XLWF qbd 4800 qre 0850 k - qth 5706 3742 qtr 0807 qre XUMO 0845 k - qqm XUMO 0945 (?) sk	(WP3)
8816	25-5-2013	1029	M32b	CW	Sat	Russian Naval Aviation. rjf94 rjc38 de 10492 qto 1020 qrd XUMO XLMV qre 1330 qbd 18000 k	(WP3)
8816	25-5-2013	1030	M32b	CW	Sat	Russian Naval Aviation. rjf94 rcb de 63182 qto 1020 qrd XLPB XUMO qre 1230 qah 5500 qbd 4600 k - qql ULWC 1126 qal XLPB 1225 qah 5500 qbd 3900 k	(WP3)
8816	25-5-2013	1120	M32b	CW	Sat	Russian Naval Aviation. rjf94 rjc38 de 10492 qql ULPE 1116 qbg 7000 k - qal XUMU 1325 k- qqm XUMU 1320 sk	(WP3)
8816	25-5-2013	1330	M32b	CW	Sat	Russian Naval Aviation. rjf94 rcb de 63182 qto 1318 qrd XMKK	(WP3)

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						XLPB qre 1620 qah 5500 qbd 4600 k - qay EETT 1445 qah 5500 qbd 3800 k - qay EVRR 1545 qal XMKK 1623 qah 5500 qbd 2900 k - qqm XMKK 1623 sk	
8816	28-5-2013	0824	M32b	CW	Tue	Russian Naval Aviation. rjf94 rcb de 63180 qto 0803 qrd XUMO XLLV qre 1000 qah 5800 qbd 4600 k - qql UUWR 0920 qal XUMO 1010 qah 5800 qbd 3800 k - qqm XUMO 1012 sk	(WP3)
12464	28-5-2013	0609	M32b	CW	Tue	Russian Naval Aviation. rit de rji63 879 17 28 1005 879 = sml for rjh45 rjh74 = 28061 99615 70039 41998 21419 10089 40040 54000 70110 82002 22253 00100 20306 28013 = + rji63 k	(WP3)
12464	28-5-2013	0854	M32b	CW	Tue	Russian Naval Aviation. riw de rcre ok qrr3 sk	(WP3)
8816	29-5-2013	0710	M32b	CW	Wed	Russian Naval Aviation. rjf94 rjc38 de 52851 qto 0655 qrd XRKE XUMO qbd 4700 qre 0955 k - qth 5143 4010 qtr 0810 qbg 5800 k - qth 4855 4024 qtr 0910 qre XRKE 1000 k	(WP3)
8816	29-5-2013	0801	M32b	CW	Wed	Russian Naval Aviation. rjf94 rcb de 63180 qto 0732 qrd XLAP XUMO qre 0955 qah 5800 qbd 3800 k - qql ULWC 0856 qal XLAP 0958 qah 5800 qbd 3000 k - qqm XLAP 0955 sk	(WP3)
8816	29-5-2013	1005	M32b	CW	Wed	Russian Naval Aviation. rjf94 rjc38 qto 0951 qrd XUMO XLMO (?) qbd 20000 k - qql ULPE 1043 qbg 7000 k - qay XLPB 1113 qbd 16000 k - qql XLWC 1154 qre XUMO 1255 k - qqm XUMO 1253 sk	(WP3)
8816	29-5-2013	1138	M32b	CW	Wed	Russian Naval Aviation. rjf94 rjc38 de 52851 qto 1125 qrd XUMO XRKE qbd 5200 qre 1425 k - qth 4931 4027 qtr 1223 qbd 6100 k - qth 5323 3855 qtr 1315 qre XUMO 1415 k - qqm XUMO 1407 sk	(WP3)
8816	29-5-2013	1351	M32b	CW	Wed	Russian Naval Aviation. rjf94 rcb de 63180 qto 1337 qrd XLPB XLAP qre 1435 qah 5500 qbd 5100 k - qqm XLPB 1443 sk	(WP3)
8816	29-5-2013	1515	M32b	CW	Wed	Russian Naval Aviation. rjf94 rjc38 qto 1507 qrd XLAA XUMO qre 1710 qbd 12000 k - qql ULWC 1607 qbg 7000 qre XLAA 1705 k - qqm XLAA 1706 sk	(WP3)
8816	29-5-2013	1601	M32b	CW	Wed	Russian Naval Aviation. rjf94 rcb de 63180 qto 1540 qrd XMKK XLPB qre 1850 qah 5500 qbd 4900 k - qay EETT 1713 qah 5500 qbd 3800 k	(WP3)
13479	11-5-2013	0841	M32c	CW	Sat	REA4 REA4 = 11080 99900 10140 73842 98115 80603 10104 20102 72163 86800 = REA4 RPT AL QLN K	(JU)
8816	16-5-2013	0500	M32c	CW	Thu	Russian Air Force. rjf94 rjc38 de 52851 qth 6622 3334 qtr 0455 qbg 6400 k - qay XLPB 0555 qbd 3400 k - qth 6001 3745 qtr 0630 qre XLWF 0655 k - qql XLWF 0651 sk	(WP3)
9271	1-5-2013	0710	M42	FSK 200/1000	Wed	Russian intel.	(FMB)
11164	1-5-2013	0700	M42	FSK 200/1000	Wed	Russian intel.	(FMB)
5787	2-5-2013	1920	M42	FSK 200/1000	Thu	FSK 200/500 8 01	(HFD)
8118	2-5-2013	1912	M42	FSK 200/1000	Thu	FSK 200/500 8 01	(HFD)
10767	2-5-2013	1900	M42	FSK 200/1000	Thu	FSK 200/500 8 01	(HFD)
13376	4-5-2013	1220	M42	FSK 200/1000	Sat	FSK 200/500 6 18	(HFD)
15827	4-5-2013	1210	M42	FSK 200/1000	Sat	FSK 200/500 6 18	(HFD)
17431	4-5-2013	1200	M42	FSK 200/1000	Sat	FSK 200/500 6 18	(HFD)
16320	6-5-2013	0150	M42	FSK 200/1000	Mon	Russian Intel.	(Dan)
6867	7-5-2013	1115	M42	CW / Baudot 50/450	Tue	Russian Gov. w7ad de ti4o k. ok k. Then RTTY: ryryryry 038 117 7 1100 8943á10917 11203 28304 07218 44364 90062 70654 35004 12263 53125 69438 89322 26163 ...	(WP3)
16320	7-5-2013	0150	M42	FSK 200/1000	Tue	Russian Intel.	(Dan)
8033.8	8-5-2013	2344	M42	CROWD-36	Wed	Russian diplo	(LG2)
16320	8-5-2013	0150	M42	FSK 200/1000	Wed	Russian Intel.	(Dan)
13453	9-5-2013	0820	M42	FSK 200/1000	Thu	Russian Intel. 23 blocks, link 16405, msg 155, msg type 07145, 142 groups, 50636 28096 34286 15235 05092 03746 48004 14272	(PPA)
15944	9-5-2013	0810	M42	FSK 200/1000	Thu	Russian Intel. 23 blocks, link 16405, msg 155, msg type 07145, 142 groups, 50636 28096 34286 15235 05092 03746 48004 14272	(PPA)
16320	9-5-2013	0150	M42	FSK 200/1000	Thu	Russian Intel	(Dan)
11116	12-5-2013	0920	M42	FSK 200/1000	Sun	Russian intel.	(FMB)

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13388	12-5-2013	0910	M42	FSK 200/1000	Sun	Russian intel.	(FMB)
16320	14-5-2013	0150	M42	FSK 200/1000	Tue	Russian Intel	(Dan)
13376	15-5-2013	1710	M42	FSK 200/1000	Wed	Russian intel.	(FMB)
11613	16-5-2013	1320	M42	FSK 200/1000	Thu	Russian intel.	(FMB)
13979	16-5-2013	1310	M42	FSK 200/1000	Thu	Russian intel.	(FMB)
14625	16-5-2013	1335	M42	FSK 200/1000	Thu	Russian intel.	(FMB)
15836	16-5-2013	1307	M42	FSK 200/1000	Thu	Russian intel.	(FMB)
16320	16-5-2013	0150	M42	FSK 200/1000	Thu	Russian Intel.	(Dan)
16320	17-5-2013	0150	M42	FSK 200/1000	Fri	Russian Intel. Message Size 32 blocks	(Dan)
12194	18-5-2013	0810	M42	FSK 200/1000	Sat	Russian intel.	(FMB)
13376	18-5-2013	1220	M42	Baudot 200/500	Sat	Russian intel. 0-msg	(FMB)
14563	18-5-2013	0910	M42	FSK 200/1000	Sat	Russian intel.	(FMB)
15827	18-5-2013	1210	M42	Baudot 200/500	Sat	Russian intel. 0-msg	(FMB)
16259	18-5-2013	0900	M42	FSK 200/1000	Sat	Russian intel.	(FMB)
17431	18-5-2013	1200	M42	Baudot 200/500	Sat	Russian intel. 0-msg	(FMB)
11414	20-5-2013	1015	M42	Baudot 200/500	Mon	Russian intel.	(FMB)
16320	20-5-2013	0150	M42	FSK 200/1000	Mon	Russian Intel.	(Dan)
7691	21-5-2013	2120	M42	Baudot 200/100	Tue	Russian intel. 0-msg	(FMB)
7811	21-5-2013	2320	M42	Baudot 200/100	Tue	Russian intel. 0-msg	(FMB)
9150	21-5-2013	2310	M42	Baudot 200/100	Tue	Russian intel. 0-msg	(FMB)
9257	21-5-2013	2110	M42	Baudot 200/100	Tue	Russian intel. 0-msg	(FMB)
11429	21-5-2013	2100	M42	Baudot 200/100	Tue	Russian intel. 0-msg	(FMB)
11445	21-5-2013	2300	M42	Baudot 200/100	Tue	Russian intel. 0-msg	(FMB)
16320	21-5-2013	0150	M42	FSK 200/1000	Tue	Russian Intel. 34 blocks	(Dan)
9317	22-5-2013	1025	M42	Baudot 200/500	Wed	Russian intel. 2 qtc 28bl. + 31 bl.	(FMB)
11162	22-5-2013	0700	M42	Baudot 200/100	Wed	Russian intel.	(FMB)
11414	22-5-2013	1015	M42	Baudot 200/500	Wed	Russian intel. 2 qtc 28bl. + 31 bl.	(FMB)
16320	22-5-2013	0150	M42	FSK 200/1000	Wed	Russian Intel. 50 blocks	(Dan)
17424	22-5-2013	1222	M42	FSK 200/1000	Wed	Russian Intel, Moscow	(MCO)
10766	23-5-2013	1900	M42	Baudot 200/500	Thu	Russian intel. 0-msg	(FMB)
16320	23-5-2013	0150	M42	FSK 200/1000	Thu	Russian Intel.	(Dan)
16320	24-5-2013	0150	M42	FSK 200/1000	Fri	Russian Intel.	(Dan)
11428	28-5-2013	2105	M42	FSK 200/1000	Tue	Russian Intel.	(Dan)
16320	28-5-2013	0150	M42	FSK 200/1000	Tue	Russian Intel.	(Dan)
10674	29-5-2013	1803	M42	Baudot 200/500	Wed	Russian intel. 49 bl.	(FMB)
16320	29-5-2013	0150	M42	FSK 200/1000	Wed	Russian Intel.	(Dan)
8142	30-5-2013	0250	M42	FSK 200/1000	Thu	Russian intel. 22 bl., 20., b5	(FMB)
10480	30-5-2013	0246	M42	FSK 200/1000	Thu	Russian intel. 22 bl., 20., b5	(FMB)
16320	30-5-2013	0150	M42	FSK 200/1000	Thu	Russian Intel. Total Message Size 58 blocks	(Dan)
16309	31-5-2013	0720	M42	FSK 200/1000	Fri	Russian Intel.	(EW)
16320	31-5-2013	0150	M42	FSK 200/1000	Fri	Russian Intel. Total Message Size 2 blocks	(Dan)
20187	31-5-2013	0700	M42	FSK 200/1000	Fri	Russian Intel. i.p. 835 53 92888 87464 35124 36. 859 54 92154 20235 46475 103. 878 55 87948 77081 08539 76. 874 56 04702 54311 43543 57 72057 91168 00000 +++++ 178	(EW)
5474	14-5-2013	1702	M45	FSK 200/1000	Tue	074 381 32 = 78597	(HFD)
5474	14-5-2013	1703	M45	CW	Tue	074 78597 59398 30913 52581 etc. Other cw station sending numbers on 5475.4 was interfering	(FYM)
5074	16-5-2013	1703	M45	CW	Thu	074 ...... 83 86 89 90 92 93 95 96 97 QRM from other CW station on 5704.5 kHz	(FYM)
5474	16-5-2013	1705	M45	CW	Thu	same as 5074 kHz	(FYM)
9212	3-5-2013	1728	M51	CW	Fri	ip	(FMB)
10240	6-5-2013	1859	M51	CW	Mon	ip	(FMB)
6825	7-5-2013	0956	M51	CW	Tue	FAV22 8Úme Regiment de Transmission AR MARDI-LECON 02TV1/4 VITESSE 600 CLAIR =	(LG2)
9191	8-5-2013	1908	M51	CW	Wed	ip	(FMB)
16264	8-5-2013	1902	M51	CW	Wed	ip	(FMB)
9191	9-5-2013	0211	M51	CW	Thu	i.p. 5LGs	(MCO)

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9191	9-5-2013	0555	M51	CW	Thu	ip	(FMB)
16242	9-5-2013	0555	M51	CW	Thu	ip	(FMB)
5453	12-5-2013	1726	M51	CW	Sun	ip	(FMB)
11574	13-5-2013	1527	M51	CW	Mon	ip	(FMB)
5055	14-5-2013	0527	M51	CW	Tue	ip	(FMB)
8016	14-5-2013	1833	M51	CW	Tue	ip	(FMB)
11608	14-5-2013	1900	M51	CW	Tue	ip	(FMB)
13472	14-5-2013	1437	M51	CW	Tue	ip	(FMB)
8016	15-5-2013	0702	M51	CW	Wed	ip	(FMB)
16263	16-5-2013	1305	M51	CW	Thu	ip	(FMB)
9213	20-5-2013	1713	M51	CW	Mon	ip	(FMB)
6853	21-5-2013	2110	M51	CW	Tue	ip	(FMB)
6853	22-5-2013	0514	M51	CW	Wed	ip	(FMB)
7535	22-5-2013	1732	M51	CW	Wed	ip	(FMB)
9213	22-5-2013	0610	M51	CW	Wed	ip	(FMB)
9191	26-5-2013	1122	M51	CW	Sun	ip	(FMB)
9213	27-5-2013	1653	M51	CW	Mon	ip	(FMB)
9202	28-5-2013	1715	M51	CW	Tue	ip	(FMB)
9212	28-5-2013	0735	M51	CW	Tue	ip	(FMB)
9424	29-5-2013	1538	M51	CW	Wed	ip	(FMB)
10518	29-4-2013	1943	M89	CW		V RXP7 RXP7 RXP7 DE CZT2 CZT2	(PPA)
3300	1-5-2013	1435	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3300	1-5-2013	1646	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3642	1-5-2013	1642	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	(JPL)
3797	1-5-2013	1431	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
3797	1-5-2013	1649	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
4225	1-5-2013	1429	M89	CW	Wed	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	(JPL)
4225	1-5-2013	1625	M89	CW	Wed	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	(JPL)
4590	1-5-2013	1433	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4860	1-5-2013	1620	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5230	1-5-2013	1642	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
5500	1-5-2013	1429	M89	CW	Wed	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
5500	1-5-2013	1625	M89	CW	Wed	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
5555	1-5-2013	1436	M89	CW	Wed	5A3D N3T7 D4AU NAAD U7A55 EE MSG NR 78 CK 78 78 78 30 E (see N&O 188)	(JPL)
6840	1-5-2013	1620	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7607	1-5-2013	1433	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	1-5-2013	1627	M89	CW	Wed	VVV HR SVC GA NR 17 0030 RMKS 5237 TO 5677/5299 =	(JPL)
8110	1-5-2013	1047	M89	CW	Wed	QV5B DE 7NPE	(EW)
10518	1-5-2013	1644	M89	CW	Wed	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3300	2-5-2013	1328	M89	CW	Thu	In tfc: /084/2200/237 NR/..4 AR	(JPL)
3456	2-5-2013	1630	M89	CW	Thu	In tfc: RMKS BT 7595 TO 706./70.4...95 AR (see N&O 188)	(JPL)
3642	2-5-2013	1512	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	(JPL)
3797	2-5-2013	1327	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	2-5-2013	1327	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	2-5-2013	1325	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4860	2-5-2013	1320	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5230	2-5-2013	1512	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
5230	2-5-2013	1518	M89	CW	Thu	D444 7777 N3NN N444 N5NN D333 D7DD 7555 A666 TDDD U44. TTTN 4555 (see N&O 188)	(JPL)
5325	2-5-2013	1010	M89	CW	Thu	In tfc: A7T6 DN5N 7DND ND.. U7T (Cont'd)	(JPL)
5325	2-5-2013	1142	M89	CW	Thu	In tfc: 7NN4 DD.7 TA3. 4634 NN6A (see N&O 188)	(JPL)
5336	2-5-2013	1542	M89	CW	Thu	In tfc: DT66 7U3A TDDD 4UD4 NNDN 4UN5 DD5U U47D 5AUU (see N&O 188)	(JPL)
5588	2-5-2013	0937	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
5801	2-5-2013	1335	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)

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6773	2-5-2013	0241	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6840	2-5-2013	0220	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
6840	2-5-2013	1320	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7607	2-5-2013	1325	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
8040	2-5-2013	0241	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8040	2-5-2013	0935	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
8101	2-5-2013	0940	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
10180	2-5-2013	0940	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //8101	(JPL)
10180	2-5-2013	1335	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
10518	2-5-2013	1003	M89	CW	Thu	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10640	2-5-2013	0220	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10779	2-5-2013	0230	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	2-5-2013	0933	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
11321	2-5-2013	1211	M89	CW	Thu	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
11321	2-5-2013	1337	M89	CW	Thu	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	3-5-2013	1045	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3682	3-5-2013	1108	M89	CW	Fri	In tfc: 5D4A D57A A6N3 N34A D3.A U.N5 III BT U4N. 6TA3 (see N&O 188)	(JPL)
5600	3-5-2013	1125	M89	CW	Fri	In tfc: BT 5U3N 45A. 7T5A 3N45 DU7T 5AU3 (Cont'd)	(JPL)
6773	3-5-2013	1028	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6774	3-5-2013	1031	M89	CW	Fri	In tfc: UU66 5T47 T65N T547 T75T 67U4 6NUD (see N&O 188)	(JPL)
6840	3-5-2013	1120	M89	CW	Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
8040	3-5-2013	0141	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
8040	3-5-2013	1028	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8789	3-5-2013	1048	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	3-5-2013	0134	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	3-5-2013	1026	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10518	3-5-2013	1057	M89	CW	Fri	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10640	3-5-2013	1120	M89	CW	Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //7840	(JPL)
10779	3-5-2013	0129	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	3-5-2013	1048	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
11312	3-5-2013	1827	M89	CW	Fri	V RXP7 RXP7 RXP7 DE CZT2 CZT2	(PPA)
3330	5-5-2013	1255	M89	CW	Sun	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	5-5-2013	2114	M89	CW	Sun	V 8CPZ (x3) DE XW6W (x2) (Cont'd) Note: 2SLC has changed callsign again! Has previously used this callsign.	(JPL)
3797	5-5-2013	1303	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
3797	5-5-2013	2112	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4225	5-5-2013	2108	M89	CW	Sun	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5550	(JPL)
4325	5-5-2013	1339	M89	CW	Sun	In tfc: = = = D4N3 73AD TAU3 67TA N637 4D5U UT45 (Cont'd – 1340z)	(JPL)
4357	5-5-2013	1347	M89	CW	Sun	In tfc: 3N3N D64 DT77A 3N44 65T3 T37T T3N5 TT3. D76A U74U 45UD NA.D 3N3T (Cont'd) R GA	(JPL)
4388	5-5-2013	1341	M89	CW	Sun	In tfc: R MSG GA R MSG NR 38 CK 91 .2 0505 2120 = (see N&O 188)	(JPL)
4512	5-5-2013	1303	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4512	5-5-2013	2112	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4860	5-5-2013	2120	M89	CW	Sun	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5500	5-5-2013	2108	M89	CW	Sun	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
5801	5-5-2013	1259	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
6840	5-5-2013	2120	M89	CW	Sun	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4869	(JPL)
7607	5-5-2013	1301	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
7607	5-5-2013	2110	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10180	5-5-2013	1259	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
11321	5-5-2013	1336	M89	CW	Sun	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	6-5-2013	1136	M89	CW	Mon	V 8CPZ (x3) DE XW6W (x2) (Cont'd)	(JPL)
3797	6-5-2013	1136	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4225	6-5-2013	1134	M89	CW	Mon	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	(JPL)

frequency	date	UTC	enigma	mode	day	remarks	contributor
4512	6-5-2013	1136	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
5230	6-5-2013	2140	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	(JPL)
5500	6-5-2013	1134	M89	CW	Mon	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
6840	6-5-2013	1921	M89	CW	Mon	vvv Q2M Q2M Q2M de NY NY	(FN)
6840	6-5-2013	2120	M89	CW	Mon	VVV (x3) Q2M DE NYZ (x2) QSA ? K	(JPL)
7582	6-5-2013	0235	M89	CW	Mon	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	(JPL)
7602	6-5-2013	1842	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
7602	6-5-2013	1917	M89	CW	Mon	v DKG6 DKG6 DKG6 de 3A7D 3A7D	(FN)
7602	6-5-2013	2140	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	(JPL)
7607	6-5-2013	1139	M89	CW	Mon	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
7607	6-5-2013	1844	M89	CW	Mon	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
8110	6-5-2013	0235	M89	CW	Mon	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	(JPL)
10180	6-5-2013	0242	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	6-5-2013	1141	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10779	6-5-2013	0237	M89	CW	Mon	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
11321	6-5-2013	1827	M89	CW	Mon	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
11321	6-5-2013	2118	M89	CW	Mon	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	7-5-2013	1114	M89	CW	Tue	V 8CPZ (x3) DE XW6W (x2) II = 4DNN (Silent - 1115z)	(JPL)
3330	7-5-2013	1425	M89	CW	Tue	XW6W in tfc: GA CQ63 RMKS 8504 TO 5973 UGT COMM ARS = (see N&O 188)	(JPL)
3330	7-5-2013	1647	M89	CW	Tue	V 8CPZ (x3) DE XW6W (x2) (Cont'd)	(JPL)
3330	7-5-2013	2010	M89	CW	Tue	V 8CPZ (x3) DE XW6W (x2) (Cont'd)	(JPL)
3642	7-5-2013	1649	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	(JPL)
3797	7-5-2013	1432	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
3797	7-5-2013	1651	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
3797	7-5-2013	2013	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4047	7-5-2013	1137	M89	CW	Tue	In tfc: T365 DN47 T53N DA6U T4UD NA53 (Cont'd) III = 76T5 AS. = ..3DAN U4.T 356A NU.. (Cont'd)	(JPL)
4388	7-5-2013	1458	M89	CW	Tue	In tfc: 3TNU A..U 6U5U AAD5 46N5 TN55 (see N&O 188)	(JPL)
4394	7-5-2013	1439	M89	CW	Tue	In tfc: R GA = A3NU NT. U3AU A356 NNUT (see N&O 188)	(JPL)
4512	7-5-2013	1432	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4512	7-5-2013	1651	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4512	7-5-2013	2013	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
5319	7-5-2013	1122	M89	CW	Tue	In tfc: 354. 34.T 56A6 ATTN NU4A 65.4 (Cont'd) AR K. R BT 5U66 = NR OK. Switch to voice	(JPL)
6312	7-5-2013	0311	M89	CW	Tue	In tfc: R CK 145 K. R QSL 1103 K (Both stations on same freq) See N&O 188	(JPL)
6468	7-5-2013	1104	M89	CW	Tue	In tfc: T734 D..U NTU4 33NU 65NT 6634 5 EEE 6D7A DTA6 7UUN (see N&O 188)	(JPL)
6773	7-5-2013	0309	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
6773	7-5-2013	1036	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6773	7-5-2013	2339	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6840	7-5-2013	1020	M89	CW	Tue	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7523	7-5-2013	1037	M89	CW	Tue	In tfc: 7U44 4NN5 436T AD7U N4D7 3U6U 8UU4 A5N3 73AU (see N&O 188)	(JPL)
7602	7-5-2013	1401	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
7602	7-5-2013	1649	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
7607	7-5-2013	1412	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
8040	7-5-2013	1036	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8040	7-5-2013	2339	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8789	7-5-2013	1018	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
8789	7-5-2013	2341	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	7-5-2013	0302	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	7-5-2013	1016	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	7-5-2013	1401	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	(JPL)
10640	7-5-2013	1020	M89	CW	Tue	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10779	7-5-2013	0300	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)

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10779	7-5-2013	1012	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	7-5-2013	1018	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
10779	7-5-2013	2341	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
11321	7-5-2013	1029	M89	CW	Tue	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
11321	7-5-2013	1414	M89	CW	Tue	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
11321	7-5-2013	2343	M89	CW	Tue	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	8-5-2013	1415	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2)	(JPL)
3330	8-5-2013	1427	M89	CW	Wed	2SLC in tfc: 29 UGT COMM = 84364/8729/2300/237NR/8504 AR = 843054/8729/2300/237NR/8504 AR = 84384/8729/2300/237NR/8504 AR AR	(JPL)
3797	8-5-2013	1418	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	8-5-2013	1418	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4860	8-5-2013	1420	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5588	8-5-2013	0957	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
5588	8-5-2013	1020	M89	CW	Wed	2SLC in tfc: II = 3T4 AR	(JPL)
6840	8-5-2013	1420	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
8040	8-5-2013	0939	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
8789	8-5-2013	0936	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
8789	8-5-2013	1417	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	8-5-2013	1045	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	8-5-2013	1425	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10779	8-5-2013	0936	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
10779	8-5-2013	1417	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
3330	9-5-2013	1125	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	9-5-2013	1245	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	9-5-2013	1242	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	9-5-2013	1242	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
5588	9-5-2013	1012	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
5588	9-5-2013	1100	M89	CW	Thu	2SLC in tfc: TDA5 N36T T6A3 NDUT 36AD 3A6D (see N&O 188)	(JPL)
5801	9-5-2013	1243	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
6773	9-5-2013	1014	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6829	9-5-2013	1033	M89	CW	Thu	In tfc: 337N 3UN5 5T4U .... K (see N&O 188)	(JPL)
6840	9-5-2013	0220	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
6840	9-5-2013	1020	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7607	9-5-2013	1240	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
8040	9-5-2013	1014	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8789	9-5-2013	1010	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	9-5-2013	0215	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	9-5-2013	1001	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	9-5-2013	1243	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
10518	9-5-2013	1056	M89	CW	Thu	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10640	9-5-2013	0220	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10640	9-5-2013	1020	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10779	9-5-2013	0211	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	9-5-2013	0959	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	9-5-2013	1010	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
10518	10-5-2013	2002	M89	CW	Fri	V RXP7 RXP7 RXP7 DE CZT2 CZT2	(PPA)
3330	11-5-2013	2013	M89	CW	Sat	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3642	11-5-2013	2008	M89	CW	Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
3797	11-5-2013	2012	M89	CW	Sat	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	11-5-2013	2012	M89	CW	Sat	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	11-5-2013	2010	M89	CW	Sat	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4860	11-5-2013	2020	M89	CW	Sat	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
6840	11-5-2013	2020	M89	CW	Sat	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7607	11-5-2013	2010	M89	CW	Sat	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	11-5-2013	2240	M89	CW	Sat	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)

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8040	11-5-2013	0247	M89	CW	Sat	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
10180	11-5-2013	0240	M89	CW	Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10779	11-5-2013	0237	M89	CW	Sat	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
3330	12-5-2013	1555	M89	CW	Sun	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	12-5-2013	1554	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
4140	12-5-2013	1558	M89	CW	Sun	In tfc: D4UD D3N6 NT.U UD. (see N&O 188)	(JPL)
4225	12-5-2013	2239	M89	CW	Sun	V 7NPE (x3) DE QV5B (x2) (Cont'd)	(JPL)
4590	12-5-2013	2237	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
5558	12-5-2013	1018	M89	CW	Sun	2SLC in tfc II = .5UA	(JPL)
6773	12-5-2013	2228	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6840	12-5-2013	1020	M89	CW	Sun	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7602	12-5-2013	1525	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
7602	12-5-2013	2231	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
8040	12-5-2013	2228	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8789	12-5-2013	1016	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	12-5-2013	1035	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10640	12-5-2013	1020	M89	CW	Sun	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10779	12-5-2013	1016	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
3330	13-5-2013	1057	M89	CW	Mon	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
4225	13-5-2013	1010	M89	CW	Mon	QV5B in tfc: 8 AR. VV TC6 = 1929/07 EEEE TC6. VV TC6 = = 1924/0900/56/8731 AR. TC7 VVV TC7 = = 1638/1440/96/8738 AR //5500	(JPL)
5500	13-5-2013	1010	M89	CW	Mon	QV5B in tfc: 8 AR. VV TC6 = 1929/07 EEEE TC6. VV TC6 = = 1924/0900/56/8731 AR. TC7 VVV TC7 = = 1638/1440/96/8738 AR //4225	(JPL)
5558	13-5-2013	1026	M89	CW	Mon	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
5801	13-5-2013	1025	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
6840	13-5-2013	1020	M89	CW	Mon	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7582	13-5-2013	0156	M89	CW	Mon	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	(JPL)
8040	13-5-2013	1017	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
8110	13-5-2013	0156	M89	CW	Mon	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	(JPL)
8789	13-5-2013	1018	M89	CW	Mon	V WITN (x3) DE GNXG (x2) (Cont'd) //10640	(JPL)
10180	13-5-2013	1025	M89	CW	Mon	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
10640	13-5-2013	1020	M89	CW	Mon	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10779	13-5-2013	0159	M89	CW	Mon	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	13-5-2013	1018	M89	CW	Mon	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
3797	14-5-2013	1051	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4225	14-5-2013	1343	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	(JPL)
4512	14-5-2013	1051	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	14-5-2013	1352	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4590	14-5-2013	2144	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
5500	14-5-2013	1343	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
5555	14-5-2013	1345	M89	CW	Tue	In tfc: MSG NR 7 CK ..3. 4 212. K 22724 ..2.. MSG NR .87. .05 042350 RMKS .82.... K. = =	(JPL)
5558	14-5-2013	0954	M89	CW	Tue	2SLC tfc: VVV GA CQ63RORE RO AS (see N&O 188)	(JPL)
5558	14-5-2013	1351	M89	CW	Tue	V MW3D (x3) DE 2SLC (x2)	(JPL)
6773	14-5-2013	2159	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6777	14-5-2013	1030	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8045	(JPL)
7582	14-5-2013	0950	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	(JPL)
7607	14-5-2013	1352	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	14-5-2013	2144	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
8040	14-5-2013	2159	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8045	14-5-2013	1030	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6777	(JPL)
8110	14-5-2013	0950	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	(JPL)
8789	14-5-2013	0952	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	14-5-2013	1028	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10779	14-5-2013	0952	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)

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10998	14-5-2013	2150	M89	CW	Tue	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3276	15-5-2013	1836	M89	CW	Wed	In tfc: MSG NR 364 CK 91 26 0516 0239 K (see N&O 188)	(JPL)
3330	15-5-2013	1806	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	15-5-2013	1801	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
4590	15-5-2013	1119	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4590	15-5-2013	1802	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4860	15-5-2013	1520	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5230	15-5-2013	1804	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
5340	15-5-2013	1825	M89	CW	Wed	In tfc: A57N N4DU 7ADT 35U4 57T3 TAUN N4U3 (see N&O 188)	(JPL)
5558	15-5-2013	1029	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
6773	15-5-2013	1027	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6773	15-5-2013	1125	M89	CW	Wed	DRV8 in tfc //8040 kHz. 310/1656/1636/05/.5/19../660/A/45/49 AR (see N&O 188)	(JPL)
6840	15-5-2013	1520	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
6840	15-5-2013	1825	M89	CW	Wed	vvv Q2M Q2M Q2M de NY NY	(FN)
7607	15-5-2013	1119	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	15-5-2013	1802	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	15-5-2013	1845	M89	CW	Wed	v WITN WITN WITN de GNXG GNXG	(FN)
8040	15-5-2013	1027	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8789	15-5-2013	1023	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	15-5-2013	1025	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10549	15-5-2013	1811	M89	CW	Wed	In tfc: 536T N35T T473 AUNT (see N&O 188)	(JPL)
10779	15-5-2013	1023	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
3330	16-5-2013	1216	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	16-5-2013	1220	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	16-5-2013	1220	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4860	16-5-2013	2220	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5801	16-5-2013	1209	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
6773	16-5-2013	2226	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6840	16-5-2013	2220	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
6848	16-5-2013	2200	M89	CW	Thu	In tfc: 3773 6.75 TD3T ..N6 AU37 63U6 A6TA T554 (N&O 188)	(JPL)
8040	16-5-2013	2226	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8789	16-5-2013	1213	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
8789	16-5-2013	2154	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	16-5-2013	1209	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
10779	16-5-2013	1213	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
10779	16-5-2013	2154	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
3300	17-5-2013	1159	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3300	17-5-2013	1906	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3596	17-5-2013	1127	M89	CW	Fri	In tfc: A4U4 7453 AT.6 7NUD TA64 NADU 73DD (see N&O 188)	(JPL)
3642	17-5-2013	1624	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
3642	17-5-2013	1903	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	(JPL)
4031	17-5-2013	1629	M89	CW	Fri	In tfc: R MSG NR 274 CK 91 10 0518 0030 RMKS 1474 TO W..14 1744 1784 K (see N&O 188)	(JPL)
4104	17-5-2013	1910	M89	CW	Fri	In tfc: VV K RPT 21W RPT 68W QSL 08 EEEE QSL 0310 K SK	(JPL)
4285	17-5-2013	1640	M89	CW	Fri	In tfc: DE Y3AK K GA UVVV WK8B DE Y3AK K (see N&O 188)	(JPL)
4373	17-5-2013	1700	M89	CW	Fri	In tfc: 010. RMKS 1534727 TO 1534725 K K (see N&O 188)	(JPL)
4394	17-5-2013	1714	M89	CW	Fri	In tfc: RMKS 1542524 TO 1542523 K = = UA3. T57A 7N63 T47N 3NU4 5DNT OK GA GA	(JPL)
4474	17-5-2013	1907	M89	CW	Fri	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
4590	17-5-2013	1905	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4889	17-5-2013	1923	M89	CW	Fri	In tfc: III = = N.5D T3TD D4UT U65A A76N 6 ? A76N ADT6 (see N&O 188)	(JPL)
5230	17-5-2013	1903	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
5409	17-5-2013	1518	M89	CW	Fri	In tfc: MSG NR3330 CK 60 87 0517 2240 AR K. R R MSG NR 3330 CK 60 87 0517 2140 = K = = A657 .U54 357T 4TD3 6UT4 (Cont'd)	(JPL)

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5410	17-5-2013	1523	M89	CW		Fri	In tfc: GU7J GU7J QSY 201 QSY QSY QSY 01 QSY 02 QSY 02 = = K (see N&O 188)	(JPL)
5424	17-5-2013	1444	M89	CW		Fri	In tfc: RGT9 FLW FLW3 RGT9 K. OK OK (see N&O 188)	(JPL)
5497	17-5-2013	1450	M89	CW		Fri	In tfc: .. 2249 BT RMKS 542523 .. 42525. MSG NR 6246 CK .6 7. 0517 2249 = UTT K (see N&O 188)	(JPL)
5588	17-5-2013	1012	M89	CW		Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
5801	17-5-2013	1225	M89	CW		Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
6773	17-5-2013	0300	M89	CW		Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6773	17-5-2013	1010	M89	CW		Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6825	17-5-2013	1053	M89	CW		Fri	In tfc: AR ??? A5T4 K. VV 8DJ EEE VV 8D7J DE J8NF K (see N&O 188)	(JPL)
6840	17-5-2013	1020	M89	CW		Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7132	17-5-2013	1045	M89	CW		Fri	In tfc: VVV VVV VVV MSG NR .. CK VVV MSG NR DIA CK IA AR I. GA = (see N&O 188)	(JPL)
7336	17-5-2013	1035	M89	CW		Fri	In tfc: 67.D UA65 D6.7 NA.7 36U. (Cont'd) AR QSL ? K R RPT K. R OK. R SK	(JPL)
7607	17-5-2013	1905	M89	CW		Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7753	17-5-2013	2143	M89	CW		Fri	In tfc: 64 96 0518 05 EEE HR MSG NR 6394 = 96 0518 8500 K = = .3TU5 7T3. DT43 T46U (Cont'd) AR	(JPL)
8040	17-5-2013	0300	M89	CW		Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8040	17-5-2013	1010	M89	CW		Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8069	17-5-2013	1106	M89	CW		Fri	In tfc: R MKS 4521 614 TO .521617 K K (see N&O 188))	(JPL)
8178	17-5-2013	1210	M89	CW		Fri	In tfc: /PBR3 AR. NR 152 1/ = .012 = C./045/PBL. AR (see N&O 188)	(JPL)
8279	17-5-2013	1112	M89	CW		Fri	In tfc: 15341 80 K K K. RA = RMKS MSG NR 2262 CK 75 94 0517 = (see M&O 188)	(JPL)
8789	17-5-2013	0202	M89	CW		Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
8789	17-5-2013	1007	M89	CW		Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10180	17-5-2013	0206	M89	CW		Fri	In chat: QSY TO 07 K K. 7 K. UUNKUMUMU.. SR 7..W AU (see N&O 188)	(JPL)
10180	17-5-2013	1018	M89	CW		Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10268	17-5-2013	1019	M89	CW		Fri	In tfc: DNA6 6A54 36.4 3ADT (Cont'd) AR K R R OK OK. (Switched to voice – 1023z)	(JPL)
10420	17-5-2013	0227	M89	CW		Fri	In tfc: MSG NR 3149 CK 79 58 0517 0950 = (see N&O 188)	(JPL)
10640	17-5-2013	1020	M89	CW		Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10779	17-5-2013	0202	M89	CW		Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
10779	17-5-2013	1007	M89	CW		Fri	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
11203	17-5-2013	0251	M89	CW		Fri	In tfc: NR 1539 CK 71 80 0517 1040 RMKS 6882 868 68072 865 K (see N&O 188)	(JPL)
11231	17-5-2013	0243	M89	CW		Fri	In tfc: A7N5 743T 5D74 6A5T (Cont'd). AR. - .... K. NR 33 .. 43 K. R 75W - A7N5 A7NR K. NR 50.. 53D .. K. OK ... GA	(JPL)
11244	17-5-2013	0247	M89	CW		Fri	In tfc: MSG NR 2239 CK 75 76 0517 1040 RMKS 6882 8616 8828 67 K (see N&O 188)	(JPL)
11263	17-5-2013	0253	M89	CW		Fri	In tfc: = AUND 3N4A A3TU 367D .DU4 UT56 AD.. (Cont'd). AR AR	(JPL)
11296	17-5-2013	0319	M89	CW		Fri	In tfc: AR R GA	(JPL)
3330	18-5-2013	1826	M89	CW		Sat	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	18-5-2013	2111	M89	CW		Sat	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	18-5-2013	1830	M89	CW		Sat	V H2FL (x3) DE DRV8 (x2) (Cont'd) (//4512	(JPL)
4474	18-5-2013	2115	M89	CW		Sat	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
4512	18-5-2013	1830	M89	CW		Sat	V H2FL (x3) DE DRV8 (x2) (Cont'd) (//3797	(JPL)
4590	18-5-2013	1825	M89	CW		Sat	V WITN (x3) DE GNXG (x2) (Cont'd) (//7607	(JPL)
4860	18-5-2013	2120	M89	CW		Sat	VVV (x3) Q2M DE NYZ (x2) QSA ? K (//6840	(JPL)
5801	18-5-2013	1300	M89	CW		Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (//10180	(JPL)
6840	18-5-2013	2120	M89	CW		Sat	VVV (x3) Q2M DE NYZ (x2) QSA ? K (//4860	(JPL)
7602	18-5-2013	1527	M89	CW		Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
7602	18-5-2013	1827	M89	CW		Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
7607	18-5-2013	1529	M89	CW		Sat	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)

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7607	18-5-2013	1825	M89	CW	Sat	V WITN (x3) DE GNXG (x2) (Cont'd) (//4590	(JPL)
10180	18-5-2013	0811	M89	CW	Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	18-5-2013	1300	M89	CW	Sat	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (//5801	(JPL)
10239	18-5-2013	0812	M89	CW	Sat	TK2E TK2E TK2E HFF NR 1700/EX1615 = S3/YJ9 AR QSY 19 NR QSY 19 NR VVV	(JPL)
10779	18-5-2013	0821	M89	CW	Sat	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10827	18-5-2013	0821	M89	CW	Sat	In tfc: 1621 = SC 1/C6 AR. E NR 1702/EX 1621 = SC1/C6 AR. QSY 17 QSY 17 VVV	(JPL)
11135	18-5-2013	1315	M89	CW	Sat	In tfc: R QSL 2115 QSL WC NR P K. R WK NR 10 K. R NIL SK. R NIL SK	(JPL)
11150	18-5-2013	0825	M89	CW	Sat	In tfc: 22 = UF1/B2 AR. E NR 1458/EX1622 = UF1/B2 AR. E NR 1458/EX1622 = UF1/B2 AR. QSY NR 19 QSY NR 19 VV	(JPL)
11155	18-5-2013	0827	M89	CW	Sat	CT5M wkg various stations (see N&O 188)	(JPL)
11163	18-5-2013	1306	M89	CW	Sat	In tfc: NR 6253 CK 69 17 0518 0900. MSG NR 6253 CK 69 17 0518 0900 = (see N&O 188)	(JPL)
11356	18-5-2013	0904	M89	CW	Sat	In tfc: R GA. R RPT 10W. R RPT 75 K. OK QSL 1714 QSL 1714 K (see N&O 188)	(JPL)
3330	19-5-2013	1450	M89	CW	Sun	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	19-5-2013	1711	M89	CW	Sun	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3642	19-5-2013	2210	M89	CW	Sun	DKG6 de 3A7D	(VL)
3777	19-5-2013	1455	M89	CW	Sun	In tfc: AR K. R RPT 37W 56AU 56AU K. R RPT 38 K EEEE RPT 38W N54A NN4A K. R RPT 77W 34DT 34DA K	(JPL)
3797	19-5-2013	1228	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
3797	19-5-2013	1709	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4225	19-5-2013	1703	M89	CW	Sun	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	(JPL)
4474	19-5-2013	2208	M89	CW	Sun	RXP7 de CZT2	(VL)
4512	19-5-2013	1228	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4512	19-5-2013	1709	M89	CW	Sun	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	19-5-2013	1705	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4860	19-5-2013	1720	M89	CW	Sun	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5230	19-5-2013	1707	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
5500	19-5-2013	1703	M89	CW	Sun	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
5588	19-5-2013	1226	M89	CW	Sun	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
6840	19-5-2013	1720	M89	CW	Sun	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7607	19-5-2013	1230	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
7607	19-5-2013	1705	M89	CW	Sun	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	19-5-2013	2203	M89	CW	Sun	WITN de GNXG	(VL)
9055	19-5-2013	1215	M89	CW	Sun	In tfc: 446 34A NUD 77. 437TT577 3N44 5 AA. (see N&O 188)	(JPL)
10180	19-5-2013	1212	M89	CW	Sun	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10979	19-5-2013	1726	M89	CW	Sun	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	20-5-2013	1809	M89	CW	Mon	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	20-5-2013	1834	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4237	20-5-2013	1758	M89	CW	Mon	In tfc: FM 31260170 = = K K (see N&O 188)	(JPL)
4485	20-5-2013	1755	M89	CW	Mon	In tfc: MSG NR 1702 CK .1 13 0521 0150 = = ..4U. DU75T ... (Cont'd)	(JPL)
4512	20-5-2013	1834	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4665	20-5-2013	1837	M89	CW	Mon	In tfc: NPT ..W K. NR QSL 0238 0238 K. NR R. T6 GB GB SK	(JPL)
4939	20-5-2013	1744	M89	CW	Mon	In tfc: RMKS 577348 FM 357732 AR = = = (see N&O 188)	(JPL)
5632	20-5-2013	1727	M89	CW	Mon	In tfc: 7G NR 1257 CK .1 98 0521 0100 RMKS 57.3.2 TO 57.383.8 K = = ..DN A64U 4T.. DAU7 (Cont'd)	(JPL)
5656	20-5-2013	1719	M89	CW	Mon	In tfc: HR MSG GA. NR 736. CK 75 8. 0521 0100 RMKS L930 TO L9Y7 = 6AD. UVT MU73T AT76 5AN3 5... (Cont'd)	(JPL)
5669	20-5-2013	1722	M89	CW	Mon	In tfc: MSG NR 4.2 CK. MSG NR 4422 CK ..80 05 1 0100 RMKS 1404 TO = = ENT5 TA4N 547T N5AT UNT4 3A7N (Cont'd) AR	(JPL)
5669	20-5-2013	1731	M89	CW	Mon	In tfc: QSL 0128 0128 MSG MSG NR 4423 CK 69 8 0521 0100 RMKS 1404 TO 1401 AR (see N&O 188)	(JPL)
5696	20-5-2013	1713	M89	CW	Mon	In tfc: MSG NR 3346 CK 79 48 0521 0100 ..KS 5763029 TO 5773.20 K = = UDA3 4D75 N3TU DU7A D547 AD73 (Cont'd) AR	(JPL)

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5784	20-5-2013	1705	M89	CW	Mon	In tfc: EE NR 4419/EX .103 = A.E9/BTL./CLF9 AR K. R K. EE NR 4419/EX 0103 = AAE9/BTL9 AR K	(JPL)
6773	20-5-2013	1031	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	(JPL)
6832	20-5-2013	1657	M89	CW	Mon	In tfc: NUD7 ND7T U3TN U3.. (Cont'd) AR. FT6D DE .... K. DE AX.8 K. .... DE AXN8 K. RNIL ... GB ..	(JPL)
6862	20-5-2013	1642	M89	CW	Mon	In tfc: NR .05/EX 0040 RMKS CQ BT 2UJ1/.3HW AR /BO1C AR (see N&O 188)	(JPL)
6886	20-5-2013	1057	M89	CW	Mon	In tfc: QSL 1842 QSL 1842 K K K. QSA 2 UD. QSL 1842 K K (see N&O 188)	(JPL)
6938	20-5-2013	1040	M89	CW	Mon	In tfc: R 7G TO U. CK 7 EE 7GS CK 7GS (see N&O 188)	(JPL)
8040	20-5-2013	1031	M89	CW	Mon	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	(JPL)
8051	20-5-2013	2003	M89	CW	Mon	In tfc: 845/EX 0403 = ..0/NB9 AR. NR 1845/EX 0403 = VB0/NB9 AR. NR 1845/EX 0403 = VB0/NB9 AR. QSY 82 QSY 82	(JPL)
8070	20-5-2013	1027	M89	CW	Mon	In tfc: AR. R 23W = T46U T46U K. 60W = 63U4 63U4 K. R = OK QSL 0833 K. OK	(JPL)
11318	20-5-2013	1018	M89	CW	Mon	In tfc: U7D6 N3D4 67U5 UAN4 (Cont'd) AR K. OK OK	(JPL)
3330	21-5-2013	1738	M89	CW	Tue	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	21-5-2013	2111	M89	CW	Tue	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3642	21-5-2013	1740	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	(JPL)
3642	21-5-2013	2115	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	(JPL)
3797	21-5-2013	1736	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4225	21-5-2013	1734	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4400	(JPL)
4225	21-5-2013	2117	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4400	(JPL)
4512	21-5-2013	1736	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	21-5-2013	1732	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4590	21-5-2013	2113	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
5500	21-5-2013	1734	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
5500	21-5-2013	2117	M89	CW	Tue	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	(JPL)
6840	21-5-2013	2120	M89	CW	Tue	VVV (x3) Q2M DE NYZ (x2) QSA ? K	(JPL)
7602	21-5-2013	1740	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
7602	21-5-2013	2115	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
7607	21-5-2013	1732	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	21-5-2013	2113	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
10998	21-5-2013	2119	M89	CW	Tue	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3797	22-5-2013	1357	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	22-5-2013	1357	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	22-5-2013	1352	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
5555	22-5-2013	1407	M89	CW	Wed	In tfc: CK 79 13 0522 2103. 050 ... TTTT 7NTAUAN35T7D T ? T ? 6UT7 3A6N	(JPL)
5588	22-5-2013	1025	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
5588	22-5-2013	1400	M89	CW	Wed	2SLC switch to msg – handsent – horrible CW: VVV EEE CQ6 RMKS 8504 TO 8729 .. (see N&O 188)	(JPL)
5801	22-5-2013	1354	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
6773	22-5-2013	2250	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2)(Cont'd)	(JPL)
6840	22-5-2013	1020	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7607	22-5-2013	1352	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
8136	22-5-2013	2025	M89	CW	Wed	In tfc: NR 3703/EX 0424 = V7M8/K9W J AR. NR 3703/EX 0424 = V7M8/K9W 1 AR. QSY 75 QSY 75 VVV	(JPL)
10180	22-5-2013	1354	M89	CW	Wed	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
10640	22-5-2013	1020	M89	CW	Wed	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10866	22-5-2013	2015	M89	CW	Wed	In tfc: 6/EX 0412 = 68C2T/Q2Q4 AR. NR 1956/EX 0412 = 68C2T/Q2Q4 S AR. NR 1956/ESX 0412 = B8C2T/Q2Q4 S AR. QSY LW QSY LW VVV	(JPL)
10998	22-5-2013	1355	M89	CW	Wed	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10998	22-5-2013	2017	M89	CW	Wed	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10998	22-5-2013	2253	M89	CW	Wed	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
11126	22-5-2013	2038	M89	CW	Wed	In tfc: /EX0436 .. CQ BT SD9 = EEEE = SD9/4T AR (see N&O 188)	(JPL)
3330	23-5-2013	1944	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)

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3642	23-5-2013	1849	M89	CW	Thu	V DKG6 de 3A7D loop	(MPJ)
3642	23-5-2013	1942	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
3797	23-5-2013	1947	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
5801	23-5-2013	1353	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	(JPL)
7607	23-5-2013	1934	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
8789	23-5-2013	0339	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	(JPL)
10120	23-5-2013	1402	M89	CW	Thu	In tfc: D6T4 75DN TDA5 TA5D A543 (see N&O 188)	(JPL)
10180	23-5-2013	0348	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10180	23-5-2013	1353	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	(JPL)
10779	23-5-2013	0339	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	(JPL)
3330	24-5-2013	1100	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	24-5-2013	1630	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3642	24-5-2013	1741	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7698	(JPL)
3797	24-5-2013	1107	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
3797	24-5-2013	1632	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	24-5-2013	1632	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
5588	24-5-2013	1059	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
6840	24-5-2013	1120	M89	CW	Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	(JPL)
7698	24-5-2013	1741	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	(JPL)
10168	24-5-2013	1706	M89	CW	Fri	2JYT in tfc: DE 2JYT K. R K K. OK. X... DE 2JYT K. R K	(JPL)
10180	24-5-2013	0348	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10336	24-5-2013	1712	M89	CW	Fri	2JYT in tfc: MSG NR 6. AGN. MSG NR 6.67 CK	(JPL)
10479	24-5-2013	1717	M89	CW	Fri	In tfc: D76A DUNA D54T T45U A57T T7U (see N&O 188)	(JPL)
10640	24-5-2013	1120	M89	CW	Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
10641	24-5-2013	1703	M89	CW	Fri	In tfc: RMKS 9687 TO 9689 K K. R R = 56ND (see N&O 188)	(JPL)
10779	24-5-2013	1105	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10779	24-5-2013	1638	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
10955	24-5-2013	1641	M89	CW	Fri	In tfc: 5743 465D N637 547A 35N4 N.7U 3ND7 4D7N A7D6 (Cont'd). R OK AS VV. DLJ3 DLJ3 K. R OK AS VV. 7D4E 7D4E K. R OK AS AS	(JPL)
10998	24-5-2013	1111	M89	CW	Fri	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10998	24-5-2013	1640	M89	CW	Fri	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
11126	24-5-2013	1652	M89	CW	Fri	In tfc: 3DU3 UN3D D5N6 376N D.A7 A7TN (see N&O 188)	(JPL)
3797	28-5-2013	1944	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	28-5-2013	1944	M89	CW	Tue	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4860	28-5-2013	1920	M89	CW	Tue	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
6840	28-5-2013	1920	M89	CW	Tue	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7602	28-5-2013	1946	M89	CW	Tue	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
7607	28-5-2013	1946	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	28-5-2013	1946	M89	CW	Tue	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
10998	28-5-2013	1948	M89	CW	Tue	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	29-5-2013	1605	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	29-5-2013	2045	M89	CW	Wed	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3797	29-5-2013	1606	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
3797	29-5-2013	2048	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	29-5-2013	1606	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4512	29-5-2013	2048	M89	CW	Wed	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	29-5-2013	1607	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4590	29-5-2013	2049	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
5500	29-5-2013	1600	M89	CW	Wed	In tfc: ZZF3/H8 I3 AR. NR 6329/..09 = Z7F3/S8 I3 AR. QSY 01 QSY 01 VV	(JPL)
7607	29-5-2013	1607	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	29-5-2013	2049	M89	CW	Wed	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
10998	29-5-2013	1608	M89	CW	Wed	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	30-5-2013	1710	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3330	30-5-2013	2011	M89	CW	Thu	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)

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3797	30-5-2013	1712	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd)	(JPL)
3797	30-5-2013	2013	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	30-5-2013	2013	M89	CW	Thu	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4590	30-5-2013	1714	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4590	30-5-2013	2017	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	(JPL)
4860	30-5-2013	1720	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
5230	30-5-2013	1716	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
5230	30-5-2013	2016	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
5230	30-5-2013	2016	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
5230	30-5-2013	2039	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	(JPL)
5348	30-5-2013	2045	M89	CW	Thu	In tfc: AD36 3NDA DUA7 ND.. 436 4.. (Cont'd) AR	(JPL)
5500	30-5-2013	2002	M89	CW	Thu	In tfc: QSY 01 QSY 01 VV	(JPL)
5500	30-5-2013	2017	M89	CW	Thu	In tfc: 15/ EEE = HHY4/HIJ1 AR. NR 6478/EX 0415 = H5Y4/H8JJ AR. QSY 05 QSO EEEE QSY 05 VV	(JPL)
5500	30-5-2013	2028	M89	CW	Thu	In tfc: NR 716/EX = 264W0F6/H.K 0 AR. SK SK	(JPL)
6840	30-5-2013	1720	M89	CW	Thu	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7602	30-5-2013	2039	M89	CW	Thu	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	(JPL)
7607	30-5-2013	1714	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
7607	30-5-2013	2017	M89	CW	Thu	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	(JPL)
10998	30-5-2013	1715	M89	CW	Thu	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
10998	30-5-2013	2015	M89	CW	Thu	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
3330	31-5-2013	2009	M89	CW	Fri	V MW3D (x3) DE 2SLC (x2) (Cont'd)	(JPL)
3642	31-5-2013	2025	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
3797	31-5-2013	2011	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	(JPL)
4512	31-5-2013	2011	M89	CW	Fri	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	(JPL)
4860	31-5-2013	2020	M89	CW	Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	(JPL)
6840	31-5-2013	2020	M89	CW	Fri	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	(JPL)
7607	31-5-2013	1342	M89	CW	Fri	V WITN WITN WITN DE GNXG GNXG	(DAU)
7607	31-5-2013	1441	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
7607	31-5-2013	1723	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
7607	31-5-2013	2027	M89	CW	Fri	V WITN (x3) DE GNXG (x2) (Cont'd)	(JPL)
8056	31-5-2013	1447	M89	CW	Fri	In tfc: 3A54 6T7. 43A6 37.. (Cont'd) AR QS. ? K. MSG NR .... 18.4791 TO 186EEE RMKS 1864791 TO 1864291 = 43DA D..3 A364 ...	(JPL)
10180	31-5-2013	1424	M89	CW	Fri	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	(JPL)
10953	31-5-2013	1428	M89	CW	Fri	in tfc: T3A6 NT.4 UT76 T3.N T5D3 A4U5 DU3. (Cont'd) AR K. R OK .S R GA. R GA. R AS AS. QSL ... GB	(JPL)
10998	31-5-2013	2013	M89	CW	Fri	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	(JPL)
5616.8	1-5-2013	1706	MX	CW	Wed	Beacon "L"	(AB)
6917.5	1-5-2013	1706	MX	CW	Wed	Beacon "L"	(AB)
8497.8	1-5-2013	1706	MX	CW	Wed	Beacon "L"	(AB)
13528	1-5-2013	0721	MX	CW	Wed	Beacon "C" Moscow	(EW)
13528.2	1-5-2013	0727	MX	CW	Wed	Beacon "F" Vladivostok	(EW)
13528.3	1-5-2013	0721	MX	CW	Wed	Beacon "K" Petropavlovsk	(EW)
13528.4	1-5-2013	0721	MX	CW	Wed	Beacon "M" Magadan	(EW)
16332	1-5-2013	0721	MX	CW	Wed	Beacon "C" Moscow	(EW)
16332.2	1-5-2013	0721	MX	CW	Wed	Beacon "F" Vladivostok	(EW)
16332.3	1-5-2013	0721	MX	CW	Wed	Beacon "K" Petropavlovsk	(EW)
4084	2-5-2013	1516	MX	CW	Thu	Beacon "V"	(JPL-Sib)
13528	2-5-2013	0954	MX	CW	Thu	Beacon "C"	(JPL-Sib)
13528.4	2-5-2013	0954	MX	CW	Thu	Beacon "M"	(JPL-Sib)
13527.7	2-5-2013	0954	MX	CW	Thu	Beacon "D"	(JPL-Sib)
4084	5-5-2013	1028	MX	CW	Sun	Beacon "V" Khiva	(VL)
4150	5-5-2013	1028	MX	CW	Sun	Beacon "V" Khiva	(VL)
4325.9	5-5-2013	1028	MX	CW	Sun	Beacon "R" Izhevsk	(VL)
5153.7	5-5-2013	1028	MX	CW	Sun	Beacon "D" Sevastopol	(VL)

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5153.9	5-5-2013	1028	MX	CW	Sun	Beacon "S" Severomorsk	(VL)
7038.7	5-5-2013	1028	MX	CW	Sun	Beacon "D" Sevastopol	(VL)
7038.9	5-5-2013	1028	MX	CW	Sun	Beacon "S" Severomorsk	(VL)
10872	5-5-2013	1028	MX	CW	Sun	Beacon "C" Moscow	(VL)
10871.7	5-5-2013	1028	MX	CW	Sun	Beacon "D" Sevastopol	(VL)
10871.9	5-5-2013	1028	MX	CW	Sun	Beacon "S" Severomorsk	(VL)
16332	5-5-2013	1028	MX	CW	Sun	Beacon "C" Moscow	(VL)
20047.7	5-5-2013	1028	MX	CW	Sun	Beacon "D" Sevastopol	(VL)
16332	6-5-2013	1457	MX	CW	Mon	Beacon "C" Moscow	(MPJ)
4084	7-5-2013	1643	MX	CW	Tue	Beacon "V" khiva	(JPL-Sib)
7027.5	7-5-2013	1909	MX	CW	Tue	Beacon "V"	(IARUMS)
7027.5	8-5-2013	1659	MX	CW	Wed	Beacon "V"	(IARUMS)
10309	8-5-2013	1004	MX	CW	Wed	Beacon "F"	(JPL-Sib)
10309	9-5-2013	1006	MX	CW	Thu	Beacon "F"	(JPL-Sib)
4325.9	10-5-2013	1903	MX	CW	Fri	Beacon "R"	(AB)
5153.8	11-5-2013	0007	MX	CW	Sat	Beacon "P" Kaliningrad, RUS	(LG2)
7027.5	13-5-2013	1728	MX	CW	Mon	Beacon "V"	(IARUMS)
4897.8	14-5-2013	1218	MX	CW	Tue	Beacon "L" Skt Peterburg	(MPJ)
10872	14-5-2013	1314	MX	CW	Tue	Beacon "C" Moscow	(MPJ)
10871.8	14-5-2013	1313	MX	CW	Tue	Beacon "P" Kaliningrad	(MPJ)
4150	16-5-2013	2108	MX	CW	Thu	Beacon "V" Khiva	(AB)
4325.9	16-5-2013	2105	MX	CW	Thu	Beacon "R" Izhevsk	(AB)
8497.8	16-5-2013	2107	MX	CW	Thu	Beacon "L" St Petersburg	(AB)
8497.8	18-5-2013	1728	MX	CW	Sat	Beacon "L"	(DS-HOL)
8497.8	18-5-2013	1913	MX	CW	Sat	Beacon "L"	(SW2)
4150	20-5-2013	1725	MX	CW	Mon	Beacon "V"	(AB)
4325.9	20-5-2013	1942	MX	CW	Mon	Beacon "R"	(AB)
7039.2	20-5-2013	1305	MX	CW	Mon	Beacon "F"	(AB-Sib)
7039.4	20-5-2013	1305	MX	CW	Mon	Beacon "M"	(AB-Sib)
8495.2	20-5-2013	1305	MX	CW	Mon	Beacon "F"	(AB-Sib)
8495.4	20-5-2013	1305	MX	CW	Mon	Beacon "M"	(AB-Sib)
8497.8	20-5-2013	1725	MX	CW	Mon	Beacon "L"	(AB)
10872.2	20-5-2013	1305	MX	CW	Mon	Beacon "F"	(AB-Sib)
4028	22-5-2013	2302	MX	CW	Wed	Beacon "V"	(JPL-Sib)
4325.9	23-5-2013	2016	MX	CW	Thu	Beacon "R"	(AB)
4325.9	23-5-2013	2044	MX	CW	Thu	Beacon "R" Izhevsk	(MPJ)
7027.5	23-5-2013	1900	MX	CW	Thu	Beacon "V"	(MPJ)
7027.5	23-5-2013	2134	MX	CW	Thu	Beacon "V"	(AB)
7038.7	23-5-2013	1912	MX	CW	Thu	Beacon "D"	(MPJ)
8497.8	23-5-2013	2044	MX	CW	Thu	Beacon "L" St Petersburg	(VL)
16332	23-5-2013	2044	MX	CW	Thu	Beacon "C" Moscow	(VL)
16332.2	23-5-2013	2044	MX	CW	Thu	Beacon "F" Vladivostok	(VL)
16331.9	23-5-2013	2044	MX	CW	Thu	Beacon "S" Severomorsk	(VL)
20047.7	23-5-2013	2044	MX	CW	Thu	Beacon "D" Sevastopol	(VL)
20047.9	23-5-2013	2044	MX	CW	Thu	Beacon "S" Severomorsk	(VL)
11360	23-5-2013	1347	RAv	USB	Thu	Acft 76754 (IL-76T) clg Korsar. Proselok answers and 76754 reports departure from Chakalova at 1720 MSK.	(RP-MD)
11360	23-5-2013	1420	RAv	USB	Thu	Korsar w/76634 reporting departure from Buntar (Orenburg AB) w/fuel 54 tons	(RP-MD)
11360	24-5-2013	1111	RAv	USB	Fri	Korsar w/76738 reporting landing at (sounded like Pskov) at 1313 MSK	(RP-MD)
7975	2-5-2013	1900	S06	AM	Thu	349 0	(HFD)
6984	6-5-2013	1905	S06	AM	Mon	349 0	(HFD)
6984	9-5-2013	1905	S06	AM	Thu	349 0	(HFD)
6984	13-5-2013	1905	S06	AM	Mon	349 0	(HFD)
13490	13-5-2013	1915	S06	AM	Mon	426	(HFD)

frequency	date	UTC	enigma	mode	day	remarks	contributor
13490	13-5-2013	1917	S06	USB+carrier	Mon	426 257 143, 72558 01556, etc 143 5fg's	(FYM)
15835	13-5-2013	1815	S06	AM	Mon	426 257 143 = 72558	(HFD)
6984	16-5-2013	1905	S06	AM	Thu	349 0	(HFD)
6974	21-5-2013	1905	S06	AM	Tue	349 0	(HFD)
7365	22-5-2013	0920	S06	USB	Wed	427 427 427 00000	(FMB)
9215	22-5-2013	0740	S06	USB	Wed	427 427 427 00000	(FMB)
10353	22-5-2013	0750	S06	USB	Wed	427 427 427 00000	(FMB)
11600	22-5-2013	0932	S06	USB	Wed	427 427 427 00000	(FMB)
14374	22-5-2013	0806	S06	USB	Wed	(ip) 00000	(FMB)
6984	23-5-2013	1905	S06	AM	Thu	349 0	(HFD)
13566	23-5-2013	0910	S06	USB	Thu	167	(FMB)
6772	25-5-2013	1935	S06	AM	Sat	426 0	(HFD)
6772	25-5-2013	1935	S06	AM	Sat	426 426 426 00000	(AB)
6984	27-5-2013	1905	S06	AM	Mon	349 0	(HFD)
7545	29-5-2013	1230	S06	AM	Wed	967 967 967 00000	(FG)
8220	29-5-2013	1240	S06	AM	Wed	967 967 967 00000	(FG)
12165	6-5-2013	1210	S06a	USB	Mon	831	(HFD)
15835	13-5-2013	1815	S06á	AM	Mon	426...257 143 72558 01556 01378...46543 257 143 00000	(JBL)
5835	1-5-2013	0830	S06s	USB	Wed	471	(HFD)
6755	1-5-2013	0820	S06s	USB	Wed	471 261 5 = 42140	(HFD)
7545	1-5-2013	1230	S06s	USB	Wed	967	(HFD)
8220	1-5-2013	1240	S06s	USB	Wed	967 452/8 = 53098	(HFD)
9670	1-5-2013	0850	S06s	USB	Wed	328	(HFD)
10120	1-5-2013	0840	S06s	USB	Wed	328	(HFD)
14580	1-5-2013	1000	S06s	USB	Wed	729 465 8 = 48521	(HFD)
14978	1-5-2013	0742	S06s	USB	Wed	745	(FMB)
16020	1-5-2013	1010	S06s	USB	Wed	729	(HFD)
12155	2-5-2013	1200	S06s	USB	Thu	425 809 6 = 79302	(HFD)
12952	2-5-2013	0900	S06s	USB	Thu	167 239 5 = 52401	(HFD)
13565	2-5-2013	0910	S06s	USB	Thu	167	(HFD)
14535	2-5-2013	1210	S06s	USB	Thu	425	(HFD)
7845	3-5-2013	0600	S06s	USB	Fri	196 107 5 = 64385	(HFD)
8720	3-5-2013	0600	S06s	USB	Fri	934 526 7 = 20534	(HFD)
9125	3-5-2013	0610	S06s	USB	Fri	196	(HFD)
9655	3-5-2013	0940	S06s	USB	Fri	516	(HFD)
10290	3-5-2013	0930	S06s	USB	Fri	516 497 8 = 47385	(HFD)
10415	3-5-2013	0610	S06s	USB	Fri	934	(HFD)
10250	4-5-2013	1210	S06s	USB	Sat	254	(HFD)
12460	4-5-2013	1200	S06s	USB	Sat	254 917/6 = 46062	(HFD)
8221	6-5-2013	0830	S06s	USB	Mon	371	(HFD)
9353	6-5-2013	0840	S06s	USB	Mon	371	(HFD)
10230	6-5-2013	1200	S06s	USB	Mon	831 905 6 = 23247	(HFD)
6780	7-5-2013	0715	S06s	USB	Tue	374	(HFD)
12935	7-5-2013	0810	S06s	USB	Tue	352	(HFD)
12935	7-5-2013	0810	S06s	USB+carrier	Tue	352 896 7	(FYM)
14373	7-5-2013	0800	S06s	USB	Tue	352 896 7 = 60583	(HFD)
14373	7-5-2013	0800	S06s	USB+carrier	Tue	352 896 7	(FYM)
15230	7-5-2013	0610	S06s	USB	Tue	438	(HFD)
16735	7-5-2013	0600	S06s	USB	Tue	438 297 5 = 88280	(HFD)
5835	8-5-2013	0840	S06s	USB+carrier	Wed	471 268 5	(FYM)
6755	8-5-2013	0820	S06s	USB+carrier	Wed	471 268 5	(FYM)
6666	14-5-2013	1500	S06s	USB	Tue	537 412 6 = 91826	(HFD)
6666	14-5-2013	1500	S06s	USB	Tue	537 412 6 91826 45630 92928 76843 22365 67564 412 6 00000	(JBL)
7444	14-5-2013	1510	S06s	USB	Tue	537 412 6 91826 45630 92928 76843 22365 67564 412 6 00000	(JBL)
7744	14-5-2013	1510	S06s	USB	Tue	537	(HFD)
14373	14-5-2013	0800	S06s	USB+carrier	Tue	352 896 7	(FYM)

frequency	date	UTC	enigma	mode	day	remarks	contributor
5835	15-5-2013	0830	S06s	USB+carrier	Wed	471 471 471 00000	(FYM)
6755	15-5-2013	0820	S06s	USB+carrier	Wed	471 471 471 00000	(FYM)
10120	15-5-2013	0840	S06s	USB+carrier	Wed	328 946 5 etc. Heavy QRM	(FYM)
14580	15-5-2013	1000	S06s	USB+carrier	Wed	729 463 5	(FYM)
16020	15-5-2013	1010	S06s	USB+carrier	Wed	729 463 5	(FYM)
7630	16-5-2013	0940	S06s	AM	Thu	314 920 5 86740 90867 32154 67534 90341	(FYM)
12952	16-5-2013	0900	S06s	AM	Thu	167 893 5	(FYM)
13565	16-5-2013	0910	S06s	AM	Thu	copy of 0900z message.	(FYM)
6666	21-5-2013	1500	S06s	USB	Tue	5FGs	(Steve)
7744	21-5-2013	1510	S06s	USB	Tue	5FGs	(Steve)
14373	21-5-2013	0800	S06s	USB+carrier	Tue	352 847 6, 60743 43943 88579 10544 89003 09532	(FYM)
10290	24-5-2013	0930	S06s	USB	Fri	516 824 7 47665 94092 48521 63888 92060 11749 70552 824 7 00000	(AB)
14835	27-5-2013	0910	S06s	USB	Mon	872	(HFD)
16830	27-5-2013	0900	S06s	USB	Mon	872 960 5 = 67423	(HFD)
10120	29-5-2013	0840	S06s	USB+carrier	Wed	328 328 328 00000	(FYM)
5815	25-5-2013	1020	S11	USB	Sat	221/00	(FYM)
5815	1-5-2013	1020	S11a	USB	Wed	221/00	(HFD)
16530	2-5-2013	1015	S11a	USB	Thu	475/00	(HFD)
8530	3-5-2013	0915	S11a	USB	Fri	487/31 = 27026	(HFD)
11581	3-5-2013	1020	S11a	USB	Fri	426/00	(HFD)
16530	6-5-2013	1015	S11a	USB	Mon	475/00	(FYM)
8530	7-5-2013	0915	S11a	USB	Tue	487/31	(FYM)
5815	15-5-2013	1020	S11a	USB	Wed	221/00	(KK2)
16530	16-5-2013	1015	S11a	USB	Thu	474/00	(FYM)
5815	18-5-2013	1020	S11a	USB	Sat	221/00	(FYM)
4973	2-5-2013	1742	S21	USB	Thu	973 381 32 = 78592 //5373	(HFD)
5373	2-5-2013	1742	S21	USB	Thu	973 381 32 = 78592 //4973	(HFD)
04973	7-5-2013	1742	S21	USB	Tue	OM Russian w/ "973" ident for 4 min, then 5fg's	(JBL)
4973	14-5-2013	1741	S21	USB+carrier	Tue	973 381 32 78597 59398 30 9or4 13 52581 70330 etc. QRM from a weak CW station on 4974.5 kHz. CW stopped at the same time as S21.	(FYM)
4973	14-5-2013	1742	S21	USB	Tue	381 32 78597 59398 30913...10352 381 32 000	(JBL)
5373	14-5-2013	1742	S21	USB+carrier	Tue	same transmission as 4973	(FYM)
4973	16-5-2013	1742	S21	USB+carrier	Thu	973 381 32 78597 59398 30 9or4 13 etc	(FYM)
4625	10-5-2013	2346	S28	USB	Fri	The Buzzer	(LG2)
4625	20-5-2013		S28	USB	Mon	MDZhB 00 289 MALOVETRIE 98 36 19 35 Priyom	(RK-Rs)
4625	20-5-2013		S28	USB	Mon	MDZhB 01 241 PASMYKA 41 36 63 31 Priyom	(RK-Rs)
4625	20-5-2013		S28	USB	Mon	MDZhB 09 ??6 KARTUZNYJ 71 48 85 00 Priyom	(RK-Rs)
4625	20-5-2013		S28	USB	Mon	MDZhB 91 756 BALOPTIKON 98 01 71 99 Priyom	(RK-Rs)
4625	20-5-2013		S28	USB	Mon	MDZhB 91 868 VALOHA 56 58 65 51 Priyom	(RK-Rs)
4625	20-5-2013	1119	S28	USB	Mon	MDZhB 24 317 TALOVKA 54 31 67 96 Priyom	(AB-EST)
4625	20-5-2013	1121	S28	USB	Mon	MDZhB 46 498 BALOBAN 92 20 23 53 Priyom	(AB-EST)
4625	20-5-2013	1325	S28	USB	Mon	MDZhB 22 186 SALMASh 41 32 04 18 ChALMA 72 02 88 56 Priyjom	(AB-EST)
3756	10-5-2013	2311	S30	CW	Fri	The Pip	(LG2)
11350	1-5-2013	1657	SDN	USB/Pactor-1	Wed	Sudanese Diplo - 2x om/aa in plain voice tfc + Pactor-I	(linkz)
7688	20-5-2013	1211	V13	USB	Mon	New Star in progress. Very weak	(AB-Sib)
9054	1-5-2013	0945	V26	USB	Wed	Chinese lady reading five letter groups	(EW)
10978	10-5-2013	1910	VC03	USB	Fri	Chinese military. Male voice with 4FG message	(PPA)
10161	6-5-2013	0653	X06	USB	Mon	Mazielka. Sequence: 165324	(AiR)
12152	6-5-2013	0832	X06	USB	Mon	Mazielka. Sequence: 432516	(HS2)
13985	8-5-2013	0853	X06	USB	Wed	Mazielka. Sequence: 134265	(AiR)
16116	8-5-2013	0853	X06	USB	Wed	Mazielka. Sequence: 134265	(AiR)
19405	9-5-2013	0605	X06	USB	Thu	Mazielka. Sequence: 352416	(BCI)
16115	15-5-2013	0840	X06	USB	Wed	Mazielka. Sequence: 215346	(AiR)

frequency	date	UTC	enigma	mode	day	remarks	contributor
16276	16-5-2013	0713	X06	USB	Thu	Mazielka. Sequence: 436512	(AB)
16320	17-5-2013	0646	X06	USB	Fri	Mazielka. Sequence: 241563	(AiR)
15677	20-5-2013	1659	X06	USB	Mon	Mazielka. Sequence: 231654	(AB)
11463	22-5-2013	0827	X06	USB	Wed	165423	(FMB)
13419	22-5-2013	0758	X06	USB	Wed	Mazielka. Sequence: 465132	(AiR)
14651	22-5-2013	1803	X06	USB	Wed		(FMB)
14971	22-5-2013	1802	X06	USB	Wed		(FMB)
10373	27-5-2013	0937	X06	USB	Mon		(FMB)
10203	29-5-2013	1754	X06	USB	Wed	215346	(FMB)
13388	1-5-2013	1700	X06a	USB	Wed	Mazielka. Sequence: 1--6--	(HS2)
14763	1-5-2013	1622	X06a	USB	Wed	Mazielka. Sequence: 1----6	(linkz)
9138	2-5-2013	1810	XPA	MFSK	Thu	msg	(HFD)
9938	2-5-2013	1750	XPA	MFSK	Thu	msg	(HFD)
10438	2-5-2013	1730	XPA	MFSK	Thu	msg	(HFD)
12168	4-5-2013	0620	XPA	MFSK	Sat	20/10/520 813 813 813 1 => 06362 00127 29283	(PPA)
10438	7-5-2013	1730	XPA	MFSK	Tue	491 1 88406 00023 99225...74512	(JBL)
10438	14-5-2013	1730	XPA	MFSK	Tue	Msg	(FYM)
10438	16-5-2013	1730	XPA	MFSK	Thu	2 min preamble, 1732 msg starts, 1732 msg ends	(FYM)
10438	14-5-2013	1730	XPA	MFSK	Tue	491 491 491 000 (R) + four 5fg's msg	(JBL)
6445	7-5-2013	0108	XSL	QPSK 1500	Tue	Japanese Self Defence Force	(LG2)

CONTRIBUTORS

AB	Ary Boender, Netherlands	JPL	JPL, Ontario, Canada
AB-EST	Ary Boender via remote rx Estonia	JPL-FNL	JPL via remote rx Finland
AB-SIB	Ary Boender via remote rx Siberia	JPL-HK	JPL via GlobalTuners Hong Kong
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