```
678  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
7269  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  43896  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  867
741  86743  86743  86743  86743  86743  86743  86743  86743  435
543  98798  98754  98754  98754  98754  29867  67543  67986  867
76  87698  69876  87698  69876  87612  12341  34867  86798  632
67  43298  65656  56756  56123  32143  14321  32143  14321  321
12787  58765  76587  58765  76587  58765  76587  58756  765
36543  54365  36543  54365  36543  54365  36543  5
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Numbers & Oddities

a.k.a. The Spooks Newsletter

Edition #185, February 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

The Numbers Station: John Cusack, Malin Akerman under siege in new trailer
http://www.digitalspy.co.uk/movies/news/a458417/numbers-station-john-cusack-malin-akerman-under-siege-in-new-trailer.html

The film stars John Cusack as a disaffected CIA agent who is givenvone last chance to prove himself. He is given the task of protecting Katherine (Malin Akerman), the operator of a top secret Numbers Station that broadcasts encrypted messages to operatives. When the station is compromised, the pair must work together to prevent a global disaster.

Kasper Barfoed has directed the film from the script by F. Scott Frazier.

New numbers stations book
http://associazioneitalia.blogspot.it/2013/02/spionaggio-in-onde-corte-lincredibile.html

Spionaggio in onde corte - L'incredibile storia delle Numbers Stations e delle radiotrasmissioni di messaggi segreti dalla Guerra Fredda ai giorni nostril (Spying on shortwave - The incredible story of Numbers Stations and radio transmissions of secret messages from the Cold War to the present day) is the title of a new book about numbers stations. It is in Italian and is accompanied by a CD with 25 rare recordings of Numbers Stations. The book has 180 pages and is for sale for EUR 26,-

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VOICE STATIONS

E07

Spectre noticed that E07a appears to have changed its 3 figure code key format to a 4 figure code key format, much like some or most M12 stations. The last 2 messages from the station, one on Saturday 23rd 0900 UTC, Wednesday 27th 2100 UTC and Thursday 28th 0530 UTC all had a 4 figure code key instead of a 3 figure code key. Maybe they have updated their decoding software to a standardised format. Time will tell if that is the case.

E07a, 5864/5164/4564 kHz, 20-02, 2100/2120/2140 UTC:	815 1 62421 326 69
	24887 91749 00775 94382 71776 29486 77143 30357 61336 66139
	98412 67721 49005 64900 31274 14063 20133 88524 31477 19298
	67843 55073 37000 68119 33396 00247 27647 28344 61973 26807
	99770 40863 16820 38019 48804 02940 85957 27149 02426 10724
	31091 28598 92399 40554 10817 53567 81370 86088 32030 79069
	03329 22768 16597 39241 11100 36038 80998 80801 34395 12180
	78262 22273 17488 30141 03775 98656 90643 26469 75223
	000 000

E07a, 11053/12153/13553 kHz, 23-02, 0900/0920/0940 UTC:	015 1 65855 2200 51
	48302 89433 69448 04628 70837 05701 96042 67268 80959 21786
	64915 21841 37990 59571 15198 10542 88392 00957 94537 13100
	86349 76838 84315 94145 3199217149 52817 20694 41232 77673
	09493 14208 80531 50128 41886 04283 16352 75916 54751 04450
	56797 47345 97411 06299 88956 49157 16144 37703 53604 56127
	36321
	000 000

E07a, 5146/5846/6846 kHz, 21-02, 0530/0550/0610 UTC:	188 1 62421 326 69
	24887 91749 00775 94382 71776 29486 77143 30357 61336 66139
	98412 67721 49005 64900 31274 14063 20133 88524 31477 19298
	67843 55073 37000 68119 33396 00247 27647 28344 61973 26807
	99770 40863 16820 38019 48804 02940 85957 27149 02426 10724
	31091 28598 92399 40554 10817 53567 81370 86088 32030 79069
	03329 22768 16597 39241 11100 36038 80998 80801 34395 12180
	78262 22273 17488 30141 03775 98656 90643 26469 75223
	000 000

E07, 7724/6924/5824 kHz, 25-02, 2000/2020/2040 UTC: E07, 7724/6924/5824 kHz, 27-02, 2000/2020/2040 UTC:	798 1 176 96
	46348 81785 01893 66529 24372 43920 51292 21451 23383 14148
	26501 01649 60861 73508 35987 53120 01689 48493 29617 86897
	27969 76349 02275 91134 52967 03527 78891 59543 33308 31036
	04323 84708 57472 47796 14361 10823 78488 32595 26171 45083
	73707 09964 05359 83855 85099 34716 47341 71119 41993 57402
	27527 32355 22934 14078 68733 24058 39461 97670 81932 35807
	33465 63608 07327 16583 73513 13285 47946 77838 91677 62052
	53871 76241 68699 06667 43067 14229 37874 98047 95723 20332
	88749 04464 45244 75319 60842 93395 17478 51845 44252 37656
	08012 90023 28933 56580 21719 80065
	000 000

E07a, 5864/5164/4564 kHz, 27-02, 2100/2120/2140 UTC:	815 1 14834 7337 54
	85606 84250 02974 45679 21100 08901 59688 87926 48228 35841
	73312 73385 70029 28944 69085 72616 98722 30111 08483 01358
	57145 75980 33913 79146 39366 29891 81610 66281 70834 98064
	23386 18147 71986 58491 52763 96964 11584 67904 08824 28299
	04207 09646 78613 57347 62924 87068 82575 82160 60283 46219
	649014 46060 15925 64128
	000 000

E07a, 5146/5846/6846 kHz, 28-02, 0530/0550/0610 UTC:	188 1 14834 7337 54
	85606 84250 02974 45679 21100 08901 59688 87926 48228 35841
	73312 73385 70029 28944 69085 72616 98722 30111 08483 01358
	57145 75980 33913 79146 39366 29891 81610 66281 70834 98064
	23386 18147 71986 55491 52763 96964 11584 67904 08824 28299
	04207 09646 78613 57347 62924 87068 82575 82160 60283 46219
	64901 46060 15952 64128
	000 000

E11/ E11a

6923 kHz, 01-02, 1710 UTC:	953 30 Attention
	08022 27281 98622 86848 74238 59675 58888 21316 92083 98170
	27920 16090 43761 96152 00155 96706 74707 56771 82252 11094
	86798 35824 02492 15665 29920 16064 29718 97241 63115 56776
	Attention (Repeats groups) Out

7317 kHz, 11-02, 0820 UTC:	430/37 Attention
	38597 19114 57280 11360 18819 59245 35542 08459 93022 45950
	28764 74132 89103 08874 53435 91115 65866 64762 65829 78437
	33761 55469 74974 49609 29858 98108 36576 35341 97772 60265
	39304 67733 49330 67093 74014 82591 61309
	Attention (Repeats groups) Out

8091 kHz, 12-02, 1045 UTC:	460/38 Attention 07661 48564 90468 42455 12863 02541 31669 31104 59935 49005 36935 61200 65354 53072 11155 68041 98936 67578 19211 44903 72651 11808 00403 66319 03546 31707 31614 98436 74902 91728 50149 18927 08581 43616 17548 81125 41627 62584 Attention (Repeats groups) Out
7840 kHz, 19-02, 0645 UTC:	519/34 Attention 86481 39865 18420 32157 43545 43030 13874 54263 18027 36424 27327 13989 87534 09303 43697 33000 45872 34338 60097 34393 86012 22636 10744 13323 08610 99161 81229 31007 43984 01238 49002 16622 37977 55870 Attention (Repeats groups) Out
6923 kHz, 15-02, 1710 UTC:	953/25 Attention 39323 51116 90658 80438 57081 95099 52326 40108 17361 91529 63531 82142 18817 72592 98928 31803 64960 28422 70049 78690 46278 51804 82980 45002 37630 Attention (Repeats groups) Out
6923kHz, 22-02, 1710 UTC:	953/21 Attention 30434 71706 80796 26268 44344 75807 75058 38921 19308 69899 37437 35147 16297 43556 59312 65605 74513 07140 46513 52312 82863 Attention (Repeats groups) Out

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E25

6140 kHz, 27-01, 0926 UTC:	YL. 353 1 353 1 353 1 353… END OF MESSAGE END OF TRANSMISSION
9450 kHz, 04-02, 1137 UTC:	Music 275 270
9450 kHz, 04-02, 1217 UTC:	835 MESSAGE (3x) 1070 5548 5362 0774 6707 5540 7277 REBEAT (3x) EOM EOT
6140 kHz, 14-02, 0929 UTC:	YL. 133 133 133 133 133 133 133 133 133 133 133 133 133 133 133 MESSAGE MESSAGE MESSAGE 4153 8248 7351 7772 4775 2864 6162 9034 3095 REBEAT REBEAT REBEAT 4153 8248 7351 7772 4775 2864 6162 9034 3095 EOM EOT
6140 kHz, 15-02, 0925 UTC:	YL. 35 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 135 32 MESSAGE MESSAGE MESSAGE REBEAT REBEAT REBEAT END OF MESSAGE END OF TRANSMISSION 135 32 135
9450 kHz, 17-02, 1211 UTC:	Enta Omri. YL. 8 long pause 830 5 END OF MESSAGE END OF TRANSMISSION
6140 kHz, 18-02, 0830 UTC:	YL. 701 701 701 701 701 701 701 701 701 701 701 701 701 701 701 MESSAGE MESSAGE MESSAGE 7811 5440 2001 6593 6470 6710 9757 4846 2339 5440 BEAT BEAT BEAT (clipped) 7811 5440 2001 6593 6470 6710 9757 4846 2339 5440 END OF MESSAGE
9450 kHz, 22-02, 1219 UTC:	Song. YL. 830 6.. 835.. MESSAGE 4021 8510 5346 6695 9356 1534 0031 5940 5872 8296 8510 7375 REBEAT 4021 8510 5346 6695 9356 1534 0031 5940 5872 8296 8510 7375 EOM EOT

EV02 - US military voice loop

I completely forgot to mention this one last month. The station was heard by a number of dxers in the USA. The transmissions had a strong resemblance to the former Yosemity Sam station. I wonder if there is a connection of Homer, Yosemity Sam and the military loop transmissions (EV02).

The station transmitted a loop recording of Homer Simpson and was heard on three frequencies: 8051.5, 12088.5, 13570 and 17461.5 kHz. I read on HF Underground that it was also heard in June 2012 on 8051.5 kHz. The

  8051.5 kHz, 06-01, 1653 UTC, USB
12088.5 kHz, 07-01, 1625 UTC, USB
13570.0 kHz, 07-01, 1428 UTC, USB
17461.5 kHz, 07-01, 1632 UTC, USB
Heard until at least 1600 UTC

Transmission:
A loop recording of Homer Simpson saying "What the hell are you reading books for?"

G11

4441 kHz, 01-02, 2000 UTC:	260/36 Achtung 41466 75297 30779 79653 43735 00241 11820 52730 79980 25655 78949 93897 63679 25169 14431 13173 24351 75386 47128 60926 56076 50017 14977 12599 73729 72582 81275 81815 29156 83779 08815 42547 56158 51375 27368 45253 Achtung (Repeats groups) Ende
6433 kHz, 09-02, 1325 UTC:	299/33 Achtung 38409 63173 24895 35371 11054 00378 00851 53481 84079 24979 86361 65534 41925 80520 57465 68822 94648 85429 44778 00636 27644 05640 74808 34948 32250 03308 42506 94768 83826 75417 01551 96594 16712 Achtung (Repeats groups) Ende
4441 kHz, 10-02, 2000 UTC:	266/32 Achtung 19410 83678 26074 82040 16220 09793 98276 81226 41742 46782 73379 66572 48242 68231 68933 83166 49912 49656 32109 27119 28247 31290 02357 40731 36459 46302 30623 87611 15246 69294 41483 64880 Achtung (Repeats groups) Ende
6433 kHz, 24-02, 1755 UTC:	279/31 Achtung 66108 02828 41156 09034 95251 89090 56234 15207 22624 56842 01510 47496 04465 80879 36074 86883 88277 52836 21635 93477 20465 93883 17275 92765 85798 82417 89090 05877 50346 32671 50064 Achtung (Repeats groups) Ende

S11a

7504 kHz, 05-03, 0915 UTC:	**484/30 Vnimanie** **89722 91499 48992 35438 46779 68015 43613 04752 67635 15942** **82046 13798 24391 95138 17788 15813 61161 75617 84907 87806** **33519 53624 77986 79391 73819 93420 97402 74967 90855 99384** **Vnimanie (Repeats groups) Konec**
7504 kHz, 15-02, 0945 UTC:	**485/36 Vnimanie** **89564 71504 96199 55306 86397 35619 85936 72135 05941 91488** **05450 53902 32351 13336 67821 67999 45034 18640 25727 23417** **89699 59146 99283 49904 91650 17764 34921 24535 21146 07298** **91194 63128 70033 22304 49528 40644** **Vnimanie (Repeats groups) Konec**
12530 kHz, 18-02, 1015 UTC:	**479/30** **31226 18458 80618 39179 82782 68924 27390 19331 74505 84494** **83601 54853 06819 39461 34275 00058 89022 50047 32171 16822** **66219 77060 25004 34783 52709 19218 81823 46497 89431 13023** **Vnimanie (Repeats groups) Konec**

S28 - The Buzzer

Mode: USB
Frequency: 4625 kHz

|	
06-02, 0913 UTC:	MDZhB 38 146 NEUMNYJ ?6 87 44 59
07-02, 1354 UTC:	MDZhB 58 094 TsETRARIJ 68 70 56 76
07-02, 1321 UTC:	MDZhB 15 156 METROKIN 88 59 58 14
13-02, 1330 UTC:	MDZhB 24 529 METIATsIL 88 51 82 22
13-02, 1338 UTC:	MDZhB 28 493 PETELShChIK 30 29 20 09
13-02, 1340 UTC:	MDZhB 67 931 NETVERDYJ 28 21 06 48
13-02, 1350 UTC:	MDZhB 61 030 PETALIT 24 77 40 31
14-02, 0702 UTC:	MDZhB 72 508 METAKSIT 34 11 62 95
14-02, 0729 UTC:	MDZhB 76 539 NESUShChIJ 56 61 62 96
14-02, 0816 UTC:	MDZhB 28 691 FESTUKA 46 12 98 44
20-02, 1328 UTC:	MDZhB 13 133 FIGIT 50 88 56 52
24-02, 1834 UTC:	Audible on 5 frequencies: 4625//4667//4709//4752//4795 kHz
27-02, 1504 UTC:	MDZhB 29 638 BEKAChINYJ 53 43 72 00

Dauntless copied the Buzzer on 1545 kHz, 01-02, 1728 UTC.

Possibly re-transmitted by a pirate
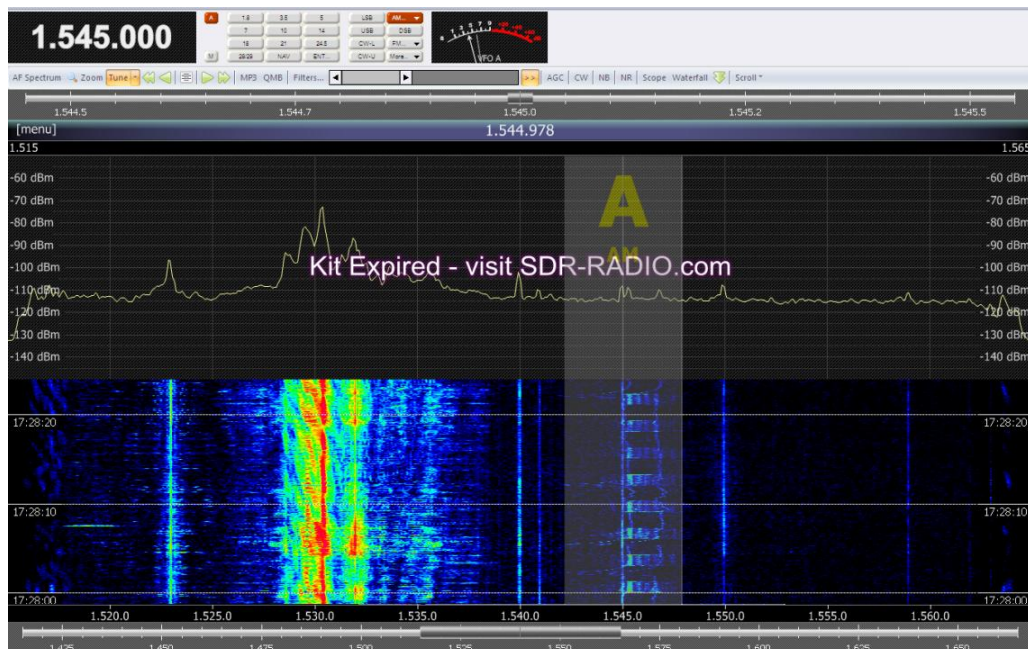
S32 - Squeaky *Wheel*

Mode: USB
Frequencies: 3838 kHz (night), 5473 kHz (day)

3828 kHz, 08-02, 1815 UTC: Dlya Rasa-64 Otpor-89 Dubler-68 Kovboj-39 Utes-94 Ryabina-38
                                            kak slyshno? kak slyshno? priyom
3828 kHz, 08-02, 1908 UTC: Dlya Fontan-34 Dzhigit-46 Sliba-94 Ruzh'e-26 Landysh-74 Bizon-64
                                            kak slyshno? kak slyshno? Priyom

3828 // 3793 kHz, 24-02, 2139 UTC. S32 on two freqs just like last month.

RMv/RNv/RNAv/RAv
Russian military stations
Frequency: various
Mode: USB / voice

RAv – Russian Air Force. Last month Geir copied these Russian military flights on 23-1, 1317-1425 UTC, 0n 8131 kHz. Thanks to Alex for the transcript.

64131, 64132 are Tu-95s
94981 is likely Il-78 tanker

Transcript:
64131, 64132 ? 94981 working with BALANS.
64132: take radio . Group : RAZDEL 235 807 836 818 131 889 930
94981 to BALANS radio: RAZDEL 860 798 479 632 460 374
64132 to BALANS radio: RAZDEL 874 168 890 996 464 144 460 285 847 060 118 Do svyazi (so long!)!
94981 , I am BALANS, please the connection!
64132 to BALANS: RAZDEL 158 512 017 807 689 520 809 778

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frequency	date	UTC	remarks
8131	5-2-2013	1054	CIS Air Force
3331	5-2-2013	1844	CIS Air Force
11354	6-2-2013	0853	Russian Air Force - Proselok??
8131	7-2-2013	1549	Russian Air Force. Balans calls traffic
11354	14-2-2013	1300	Russian Air Force. Priboy w/Novator reporting acft landing
11354	14-2-2013	1316	Russian Air Force. Acft 46548 clg Novator w/no response. Changes & calls Kraket and passes departure msg. Kraket then relays msg to Priboy.
11354	14-2-2013	1410	Russian Air Force. Acft 46548 clg Kraket & Priboy w/no response.
11354	14-2-2013	1420	Russian Air Force. Acft 52410 clg both Priboy & Novator. Proboy responds--52410 reports departure from Ostafyevo and ETA destination of Kipelevo
8131	14-2-2013	1502	Russian Air Force. Katolik w/acft 58??? (garbled xmitter) w/probable departure msg
8131	14-2-2013	1509	Russian Air Force. Katolik w/acft 57974 w/formatted msg. Both stns have very bad xmitters. At 1630 again w/Katolik in position report
8131	14-2-2013	1510	Russian Air Force. Acft 57974 clg Katolik & Balans w/no response. Katolik finally responds and advises that he reads 57974 4/4
8131	14-2-2013	1524	Russian Air Force. Katolik radio check w/acft 58135. Acft 105 also mistakenly answers
8131	14-2-2013	1707	Russian Air Force. Katolik w/acft 58178 w/formatted msg.
8131	14-2-2013	1713	Russian Air Force. Acft (callsign garbled) clg Balans w/no response. Then calls Katolik w/no response. Acft xmitter badly overmodulated.
8131	14-2-2013	1720	Russian Air Force. Katolik w/acft 78105 w/formatted msg. At 1835 again w/Katolik w/formatted msg
11354	14-2-2013	1732	Russian Air Force. Acft 52440 clg Priboy, Novator & Kraket w/no repsonse
6685	14-2-2013	1802	Russian Air Force. Korsar (Russian AF Pskov) clg unid stn w/no response
6685	14-2-2013	1804	Russian Air Force. Davelenie (Russian AF Taganrog) clg Proselok (Russian AF Bryansk) w/no response
8131	14-2-2013	1856	Russian Air Force. Katolik w/acft 78158 w/formatted msg
11354	19-2-2013	1145	Priboy (Air Transports Central Sector, Moscow) w/acft 52436 (prob Russian Navy AN-26) who reporrts landing at Kacha at 1146. Also w/Kraket (Air Transports Western Sector,Kaliningrad)
6885	19-2-2013	1200	Korsar (Russian AF, Pskov) w/readability checks w/Davelenie (Russian AF, Taganrog); Proselok (Russian AF, Bryansk) & Klarenist (Russian AF, Tver)
8131	19-2-2013	1222	Balans (unid Russian AF) clg 78162 no response
6885	19-2-2013	1257	Acft 58817 w/Daveline (not heard)
8131	19-2-2013	1535	Acft 57703 clg Katolik (unid Russian AF) w/no response
6885	19-2-2013	1802	Polis (Russian AF Orenburg) w/Karsar & Davlenie in radio checks
6885	19-2-2013	1805	Acft 78764 clg Korsar no response
6685	20-2-2013	1230	Korsar (Russian AF, Pskov) w/ Davlenie (Russian AF Taganrog), Proselok (Russian AF, Bryansk) and Klarenist (Russian AF, Tver) in radio checks.
11354	20-2-2013	1337	Priboy (Air Transports Central Sector, Moscow) w/52411 (prob Russian Navy AN-26) who report departure from poss Kipelovo at 1320 and ETA Chernyakhovsk at 1640
6885	20-2-2013	1417	Korsar: 1417 USB w/82037? w/flt status report
6685	21-2-2013	1224	Russian Air Force: Korsar w/acft 52934
6585	21-2-2013	1225	Russian Air Force: Korsar w/Klarenetist
6685	21-2-2013	1226	Russian Air Force: Korsar w/acft 78776
6685	21-2-2013	1228	Russian Air Force: Korsar w/acft 78810
6685	21-2-2013	1249	Russian Air Force: Korsar w/acft 78?13
11354	21-2-2013	1311	Russian Air Force: Priboy w/acft 52441 who reports departure from Chernyakhovsk at 1300 MSK & ETA at unreadable location of 1655 MSK
6885	21-2-2013	1319	Russian Air Force: Korsar w/acft 76886. Seems to be some confusion as Korsar also calls him 76786
6885	21-2-2013	1322	Russian Air Force: Korsar w/acft 76231 who reports departure from Chelyabinsk. Korsar also calls him 76531
6685	21-2-2013	1328	Russian Air Force: Korsar w/acft 76669 who reports departure from Ulyanovsk West

frequency	date	UTC	remarks
11354	21-2-2013	1406	Russian Air Force: Novator & Priboy w/acft 52410 (Navy AN-26) w/flt route status
6885	21-2-2013	1717	Russian Air Force: Korsar w/acft 76554 who advises they are under the control of Saratov
6685	21-2-2013	1821	Russian Air Force: Korsar w/acft 76554 who report landing at Orenburg at 2219 MSK
6885	21-2-2013	1834	Russian Air Force: Korsar w/acft 78834 who reports departure from Ivanovo and ETA possibly Tver
6885	21-2-2013	1835	Russian Air Force: Korsar w/acft 76613 who reports landing at (sounds like Kanatni?).
6885	21-2-2013	1900	Russian Air Force: Davlenie w/acft 76726
6885	21-2-2013	1903	Russian Air Force: Acft 7676 clg Karsar, Davlenie, Polis w/no response, Karsar finally responds. Acft 76769 reports departure from Chelyabinsk at 2235 MSK and ETA landing at Ivanova North
6685	21-2-2013	1910	Russian Air Force: Karsar w/acft 78834 who reports landing at Tver at 2310 MSK
6685	21-2-2013	1912	Russian Air Force: Karsar w/acft 78757 who reports departure from Chelyabinsk at 2240 MSK and ETA Kanatni of 2233 MSK
6685	21-2-2013	1926	Russian Air Force: Korsar w/acft 76772 who reports departure from Tver at 2115 MSK & ETA at Ekaterinburg/Koltsovo of 0115 MSK
6685	23-2-2013	2111	Russian Air Force. Korsar clg 78757 / Landed Kanatniy (Ivanovo North) at 01:10
6685	26-2-2013	0226	Korsar (Russian AF, Pskov) w/acft 76772 who reports departure from Koltsovo at 0515 MSK & ETA Dushanbe of 0944 MSK
8131	26-2-2013	0839	Russian Air Force. Aircraft wkg with Katolik and Balans.
6685	26-2-2013	1212	Korsar w/acft 86725 (weak-unreadable). Korsar has trouble hearing this acft
8131	26-2-2013	1348	Russian Air Force. Aircraft 78169-57978 wkg with Katolik
8131	26-2-2013	1411	Russian Air Force. Aircraft 78169-57978 and 78162-57975 wkg with Katolik
8131	26-2-2013	1552	Acft 78169 w/Katolik (unid Russian AF). Katolik badly overmodulated--hard to read. Acft 78169 also w/acft (78)199
8131	26-2-2013	1618	Katolik w/acft 57975 w/formatted msg.
8131	26-2-2013	1620	Katolik w/acft 78762 w/formatted msg.Acft 78762 acts as relay between Katolik & acft 57975 & advises that Katolik QSLs his msg
8131	26-2-2013	1626	Katolik w/acft 57978 w/formatted msg
8131	26-2-2013	1639	Acft 57946 w/acft 57978 relaying formatted msgs for forwarding on to Katolik. Later 57978 also relays msgs for acft 57975
8131	26-2-2013	1700	Acft 57975 clg both Katolik & Balans w/no response. Acft 78162 responds and advises that Katolik cannot hear him
8131	27-2-2013	1716	Russian Air Force. KATOLIK with various aircraft
6685	28-2-2013	1200	Korsar (Russian AF, Pskov) radio check w/Proselok (Russian AF, Bryansk), Davlenie (Russian AF, Taganrog), & Polis (Russian AF, Orenburg)
6885	28-2-2013	1207	Korsar w/76551 (IL-76) reporting departure from (missed) at 1540 MSK and ETA Mozdok 1720 MSK
6885	28-2-2013	1309	Korsar w/76772 (not heard) w/departure from Shagol

RMv – Russian Military

frequency	date	UTC	remarks
6943	15-2-2013	1725	Russian Mil. Ops chat
2770	27-2-2013	2024	Russan Military. 3FG callsign with na priyom

RNAv – Russian Naval Air Transport

frequency	date	UTC	remarks
11354	6-2-2013	1407	Russian Nval Air wkg PRIBOJ
11354	26-2-2013	1258	Priboy (Air Transports Central Sector, Moscow) w/acft 52436 (poss Russian Navy AN-26 Severomorsk-3) who reports landing at Rostov at 1657 MSK. Priboy relays info to unid ground stn.

frequency	date	UTC	remarks
11354	28-2-2013	1320	Priboy (Air Transports Central Sector,Moscow) w/30721 departure from (missed) & ETA St Petesburg 1610 MSK

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

7553 kHz, 09-02, 1010 UTC: in progress //9153 kHz

9153 kHz, 09-02, 1010 UTC: in progress //7553 kHz

VC01 - Chinese Robot
Chinese Air Defense

Modes: USB and LSB

The station changes its frequencies frequently. Known frequencies:
3036, 3749, 3837, 4075, 4258, 4343, 4410, 4422, 4427, 4480, 4530, 4580, 5195, 5232, 5288, 5303, 5328, 5330, 5393, 5592, 5700, 5742, 5764, 5802, 5832, 6209, 6479, 6771, 6840, 6858, 6860, 6949, 6960, 7090, 7351, 7608, 7684, 7726, 7739, 7744, 7756, 7770, 7792, 7864, 7865, 7880, 7890, 7924, 7938, 8000, 8025, 8170, 9000, 9169, 9192, 9290, 9340, 10508 kHz.

VC01 is on 5232 kHz LSB in February

5232 kHz, 08-02, 1528 UTC
5232 kHz, 09-02, 1729 UTC
5232 kHz, 14-02, 1213 UTC, 1320 UTC
5232 kHz, 23-02, 1413 UTC, 1654 UTC
5232 kHz, 24-02, 1245 UTC, 1315 UTC, 1459 UTC
5232 kHz, 25-02, 1705 UTC
5232 kHz, 26-02, 1215 UTC
5232 kHz, 27-02, 1432 UTC

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, 6917.5, 8497.8 kHz	.0 "C", Moscow
V 3658, 4150, 6809, 6928, 7027.5 kHz	.1 "A", Astrakhan
R 5466 kHz (seldom reported these days)	.2 "F", Vladivostok
W 5835, 8112, 8162 kHz (Air Force)	.3 "K", Petropavlovsk Kamchatskiy
	.4 "M", Magadan

Reported beacons and channel markers.

European Cluster Beacons: D, P, S, C, L
Asian Cluster Beacons: F, K, M

Channel markers: V on 3658, 6762 kHz

M12

9264 kHz, 15-02, 1820 UTC:

124 (R) 5788 75 5788 75
33190 99081 72817 51301 63034 12350 65813 03573 50805 73333
19393 59887 51554 24121 76571 62654 23730 62246 59396 64808
89876 97239 07305 11873 88373 34039 98126 82181 85989 26133
96521 74088 73974 18953 76450 17498 67897 12829 43235 04535
06954 33676 00307 79742 04494 41103 17168 94791 62553 98838
71790 90232 12272 50167 72810 30513 91024 10169 71243 82530
63243 10048 32492 58831 47381 55444 71287 79122 92114 24383
69498 67149 38390 25202 68475
000 000

M14

4496 kHz, 25-02, 1830 UTC:

910 357 = 142 = =
25441 85871 16621 03106 73064 04821 69721 31301 82722 81413
68494 28850 46461 84037 71295 88375 22292 82236 97666 97814
60819 48606 83623 25379 23771 70170 31248 91318 36597 70159
11546 99952 42351 46136 18837 30383 49021 75415 41581 09341
83504 73694 99299 14600 22421 17855 00319 82388 82939 68854
99984 17250 05815 55655 44065 27778 07817 06129 67006 36668
29745 35865 79744 38526 19208 30834 26760 03862 44364 84834
18045 52722 55805 77652 58700 46377 38772 04899 51818 70523
22888 95428 19364 08418 41602 77304 80727 27396 58526 78230
97641 27210 02853 71391 47147 23607 81045 02650 01302 65620
56981 60018 18309 09967 17740 71361 74765 01026 67231 41249
93702 29819 14829 62922 48126 70426 51224 66275 44722 17288
28668 87829 17431 71816 87794 73601 85568 51766 98215 50828
56193 21798 05073 29472 75390 68659 98735 19457 58175 69450
49826 74551
= = 357 142 00000

M18

3803 kHz, 02-02, 2030 UTC: 1143 1143 1144 1144 1144 etc.
3803 kHz, 11-02, 2203 UTC: 0305 0305 0305 0306 0306 etc.
3803 kHz, 12-02, 2044 UTC: 0147 0147 0148 0148 0148 etc.
3803 kHz, 15-02, 1929 UTC: 0231 0231 0231 0232 etc.
3803 kHz, 16-02, 2153 UTC: 1312 1312 1313 etc.
3803 kHz, 19-02, 2029 UTC: 0023 0023 0023 0024 0024 etc.
3803 kHz, 24-02, 2012 UTC: 0012 0012 0013 0013 0013 etc.
3803 kHz, 27-02, 1004 UTC: 1626 etc.

M21 + variants
Russian Air Defence Forces
Войска ПВО   Voyska PVO

Id "0": 3322, 4951.5
Id "8": 5752
Id "9": 6823.5

4485 kHz, 21-02, 2053 UTC. Copied by JPL

VC6C DE YNO6 K
OK AS K
I2IF DE VC6C ZQ EEEE
I2IF DE VC6C K
VC6C DE I2IF K
I2IF DE VC6G ZQO Z.K ZOR Q.T 1 K
I2IF OK ZQO ZBK ZOW QYT 1 K
R K
MVJT DE VC6C QRU ? K
VC6C DE MK.T QTC K
MVJT DE VC6C QRV K
MVJT 220 54 21 2255 220 =
T65 7T9 353 =
HRAZF KPOVX AQE.J M.HGLOKF AD VG (Cont'd)
(Using barred letters A, O, U, H)
BT 837 K
VC6C R PTA DS K
RPT K
VC6C RPT MDS K
MVJT = T65 7T9 363 = K
VC6C R 220 K
R K
YNO6 DE VC6C QRU ? K
RPT K
YNO6 DE VC6C QRU ? K
YNO6 DE VC6C QRU ? K
VC6C DE YNO6 QTC K
YNO6 DE VC6C QRV K
YNO6 DE VC6C QRV K
YNO6 752 53 21 2335 752 =
945 =
53918 23371 64621 89312 42421 876.3 45262 (Cont'd)

5152 kHz, 23-02-2013 2304 (JPL-RUS) M32   CW

SK8I DE G3WM K
QSA 3 QTC 2 K
Into RTTY – sent RYs briefly, then returned to CW
SK8I DE G3WM K
SK8I DE
BK QDD
QDD QDD QDD
SK8I DE G3WM K
BK QDD QDD QDD QDD
QDD QDD
QDD QDD QDD
SK8I DE G3WM QDD QDD K
SK8I DE G3WM QDD QDD K
SK8I DE G3WM BK BK BK BK BK

---

frequency	date	UTC	Flash messages
11468	1-2-2013	1016	XXX XXX RDL RDL 14488 AMFIBIAe 01 1320 285 135 1406
10042	5-2-2013	0817	XXX XXX REA4 REA4 28834 KOWAR 9810 8420
10042	5-2-2013	0819	XXX XXX REA4 REA4 97157 KONCERTANT 5547 6718
10042	5-2-2013	0821	XXX XXX REA4 REA4 15561 ChORTGORN 4686 8609
10042	5-2-2013	0823	XXX XXX REA4 REA4 63484 BULAWKA 3188 4214
10042	5-2-2013	0842	XXX XXX REA4 REA4 79771 PODOJ 8600 3804
3161	5-2-2013	1705	XXX XXX W6BY W6BY 48312 GALEAS 8584 3362
6342	5-2-2013	1710	XXX XXX W6BY W6BY 53010 48312 GALEAS 8584 3362
5953	7-2-2013	0651	Russian Mil. XXX XXX AHWL AHWL DE 9B6S 99991 99991 99991 99999 = T9AT TT9T K
10422	8-2-2013	0817	XXX XXX MSK7 MSK7 12554 TOMLENIE 0386 6272
10422	8-2-2013	0821	XXX XXX MSK7 MSK7 90829 PROBEL 4281 1138
10422	8-2-2013	0842	XXX XXX MSK7 MSK7 66364 TOLSTOMEC 2685 7870 KORREKTURA 3617 5309
6881	21-2-2013	0925	XXX XXX VKG9 VKG9 45162 DIGESTIYa 8472 2064 K
6881	21-2-2013	0930	XXX XXX HOI1 HOI1 02005 KATAHREJ 0517 5135 K
10377	21-2-2013	0931	XXX XXX HOI1 HOI1 02005 KATARHEJ 0517 5135
6881	21-2-2013	0935	XXX XXX VN6B VN6B 41237 DIWA 9854 4962 K
10377	21-2-2013	1007	XXX XXX.... ....60862 IZBOREC 6225 3126 ERETIK 6916 3408 K
6881	21-2-2013	1015	XXX XXX HOI1 75549 DRAChENA 2305 0199 K
10377	21-2-2013	1026	XXX XXX HOI1 HOI1 75549 DRAOeENA 2305 0199 //10933 kHz
10933	21-2-2013	1026	XXX XXX HOI1 HOI1 75549 DRAOeENA 2305 0199 //10377 kHz
6881	21-2-2013	1142	XXX XXX ZhN6B ZhN6B 69682 OGLICA 4798 4998 K
4485	23-2-2013	2159	Russian Mil. XXX XXX YVWL YVWL ESKADRA 5228 ESKADRA 5228
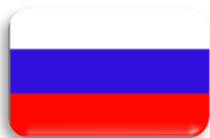
M32a
Russian Navy
Voyenno-Morskoy Flot Rossii

Several high lights. See the Logs Section for other logs.

frequency	date	UTC	remarks
21438	24-1-2013	1027	Russian Navy. RIP90 DE RCV QTC 313 31 16 1602 313 = NAWIP 033 134 KARTA (etc)
21438	25-1-2013	1042	Russian Navy "RCV"
21438	28-1-2013	0805	Russian Navy. RCV OK QYT4 QWH 12794/16976 K
8345	14-2-2013	0020	RIS96: Russian Navy. "riw deris96 qsa3 qsa? k - ok qlw k"
8345	14-2-2013	0605	RKO81: Russian Navy AO Lena. "rcv de rko81 621 20 14 1000 621 = for rjh45 rjd38 rje73 = 14061 99367 10262 41698 71311 10155 40092 56014 70262 8772/ 22200 00170 20404 300// 88000 80000 14016 = + rko81 k"
12464	15-2-2013	1025	Russian Navy AO Lena. rcv de rko81 981 20 15 1600 981 = for rjh45 rjd38 rje73 = 15121 99367 10261 41598 63006 10170 40066 52014 70262 86338 22212 00160 29901 327// 88000 8000 15016 = + rko81 k
12464	15-2-2013	1505	Russian Navy Rescue Tug SB-406. rmp de rjq84 qsa? k ok qap k
8345	15-2-2013	1805	Russian Navy AO Lena. rmp de rko81 765 20 15 2200 765 = for rjh45 rjd38 rje73 = 15181 99367 10262 41998 93412 10130 40107 51015 70111 80000 22200 00130 2//// 3//// 88000 80000 15016 = + rko81 k
12464	16-2-2013	1202	Russian Navy AO Lena. rmp de rko81 226 20 16 1600 226 = for rjh45 rjd38 rje73 = 16121 99367 10262 41698 22301 10140 40159 52010 70100 82101 22200 00160 20000 30000 88000 80000 16016 = + rko81 k
8345	16-2-2013	1801	Russian Navy. RCV DE RKO81 QTC. RKO81 315 ?? 16 2200 315 = FOR RJH45 RJD38 RJE73 = 16181 99367 10262 22200
8345	16-2-2013	1805	Russian Navy AO Lena. rmp de rko81 315 20 16 2200 315 = for rjh45 rjd38 rje73 = 16181

frequency	date	UTC	remarks
			99367 10262 41698 60501 10120 40159 54000 70300 8614/ 22200 00160 20000 30000 88000 80000 16016 = + rko81 k
12464	18-2-2013	1205	Russian Navy AO Lena. rcv de rko81 207 20 18 1600 207 = for rjh45 rjd38 rje73 = 18121 99367 10262 41698 23407 10130 40146 42020 70110 82121 22200 00160 204// 30000 88000 80000 18016 = + rko81 k
13086	19-2-2013	0756	RIW: Russian Navy HQ Moscow. riw clg rmc99 prijom after coord on 12464
19201	25-2-2013	1328	RCV: Russian Navy Sevastopol UKR ip weather reports including for Tartus Syria

M32b
Russian Naval Aviation
Aviatsiya Voenno-morskogo Flota Rossii

Several high lights. See the Logs Section for other logs.

frequency	date	UTC	remarks
8816	15-2-2013	1025	Russian Naval Air Transport AN-26. rjf94 rcb de 30740 qto 1001 qrd XRKA XUOW qah 5800 qbd 0500 k - qay XRRI 1110 qah5800 qbd 0350 k - qay XRKP 1205 qah 5800 qal XRKA 1245 qbd 0300 k - qqm XRKA 1242 sk
8816	15-2-2013	1442	Russian Naval Air Transport AN-12. rjf94 rjc38 de 08202 qto 1434 qrd XLMV XUEM qre 1740 qbd 12600 k - qth 6622 3334 qtr 1640 qbg 7300 k
8816	16-2-2013	0618	Russian Naval Air Transport. rjc38 rjf94 de 52415 qto 0612 qrd XLLV XLMV qre 0920 qbd 5100 k qql XLMF 0650 qbg 5200 k qql ULPE 0723 qbd 3800 qbg 4900 k qay XLPB 0812 qbd 3100 qre XLLV 0905 k qql XLLV 0952 sk
8816	16-2-2013	0840	Russian Naval Air Transport AN-26. rjf94 rcb de 30740 qto 0810 qrd XUOW XRKA qah 5500 qbd 0430 k qth 4955 4032 qtr 0942 qah 5500 qal XUOW 1025 qbd 0330 k qqm XUOW 1030 sk
8816	16-2-2013	1010	Russian Naval Air Transport. rjc38 rjf94 de 52415 qto 1000 qrd XLMV XLLV qre 1305 qbd 5300 k qql XLPB 1058 qbd 4400 qbg 5200 k qql ULPE 1150 qbd 3500 qre XLMV 1305 k qql XLMF 1230 k qql XLMV 1304 sk
8816	16-2-2013	1553	Russian Naval Air Transport AN-26. rjf94 rcb de 30740 qto 1330 qrd XLLV XUOW qah 5500 qbd 0500 k qay XUEM 1448 qah 5500 qbd 0400 k qqm XLLV 1630 sk
8816	18-2-2013	1052	Russian Naval Air Transport. rjf94 rjc38 de 52411 qto 0943 qrd XLLV XLMV qbd 4600 qre 1255 k - qql ULPE 1050 qbg 5800 qbd 3300 k - qay XLPB 1145 qbg 6000 qbd 2200 k - qqm XLLV 1240 sk
8816	18-2-2013	1350	Russian Naval Air Transport. rjf94 rjc38 de 52416 qto 1130 qrd XLLV XLMV qre 1450 qbd 5000 k - qql XLMF 1202 qbg 5200 k - qql ULPE 1244 qbd 3600 qbg 5500 k - qql XLPB 1335 qbd 2800 qre XLLV 1430 k - qqm XLLV 1422 sk
8816	18-2-2013	1354	Russian Naval Air Transport. rjf94 rjc38 de 52411 qto 1338 qrd XUMO XLLV qbd 5300 qre 1530 k - qth 5805 3408 qtr 1437 qbg 5800 qbd 4200 k - qqm XUMO 1535 sk
8816	18-2-2013	1442	Russian Naval Air Transport. rjc38 de rjf94 qsa ? k qsa3 rpt fm 52411 k
8816	18-2-2013	1442	Russian Naval Air Transport. CW rjf94 de rjc38 qsa3 k ok rpt fm 52411 qth 5805 3408 .....
8816	19-2-2013	0717	52411: Russian Naval Air Transport AN-26. rjf94 rjc38 de 52411 qth 6313 3547 qtr 0715 qbg 6100 qbd 3600 k - qth 6635 3323 qtr 0815 qbg 6100 qbd 2500 k - qqm XLMV 0905 sk
8816	19-2-2013	0811	52416: Russian Naval Air Transport AN-26. rjf94 rjc38 de 52416 qql XLPB 0704 qbd 3900 qbg 5800 k - qql ULPE 0757 qbd 3000 qre XLMV 0910 k - qql XLMF 0838 k - qqm XLMV 0922 sk

M32c
Russian Air Force
Voyenno-vozdushnye sily Rossii

frequency	date	UTC	remarks
7018	13-1-2013	1535	Russian Air Force Moscow "REA4"
14036	13-1-2013	1535	Russian Air Force Moscow. Harmonic of 7018 kHz
8112	6-2-2013	0600	Russian Air Force. Brief W Markers with a RPT K. No calls noted.
8112	6-2-2013	1800	Russian Air Force "W" marker
8112	6-2-2013	1812	Russian Air Force "R R K" followed by a message at 1816 UTC. Very weak. Not the "W" station
8112	6-2-2013	1820	Russian Air Force "W" marker
8112	6-2-2013	1840	Russian Air Force "W" marker
8112	6-2-2013	2000	Russian Air Force "W" marker
8112	6-2-2013	2040	Russian Air Force "W" marker
8112	6-2-2013	2100	Russian Air Force "W" marker
8112	6-2-2013	2120	Russian Air Force "W" marker
8816	15-2-2013	1446	Russian Air Force. RJF94 QTO 1434 QRD XLMV XUEM QRE 1740 QBD 12600
8816	15-2-2013	1540	Russian Air Force. RJF94 RJC38 DE 08202 QTC K. 08202 DE RJF94 QRV. 08202 DE RJC38 QRV. 08202 QTH 61173700 QTR 1540 QBG 7300 RPT AL K
8816	15-2-2013	1642	Russian Air Force. 08202 DE RJC38 QRV. 08202 QTH 66223334 QTR 1640 QBG 7300 RPT AL K
8816	16-2-2013	0944	Russian Air Force. 30740 DE RJF94 QRV K (30740 replies with pos rep, too faint to copy). RJF94 QTH 49554032 QTR 0942 QAH 5500 QAL XUOW 1025 QBD 0330 K
8816	16-2-2013	1008	Russian Air Force. RJF94 DE 52415 QSA? QTC. 52415 DE RJF94 QSA 2 QRV. 52415 QTO 1000 QRD XLMV XLLV QRE 1305 QBD 5300 RPT AL
8816	16-2-2013	1011	Russian Air Force. RJF94 QTO 1000 QRD XLMV XLLV QRE 1305 QBD 5300
8816	16-2-2013	1031	Russian Air Force. RJF94 QQM XUOW 1030 (presumed in reply to 30740)
8816	16-2-2013	1104	Russian Air Force. RJF94 DE 52415 QTC. 52415 DE RJF94 QRV. 52415 QQL XLPB 1058 QBD 4400 QBG 5200 RPT AL. RJF94 QQL XLPB 1058 QBD 4400 QBG 5200
8816	16-2-2013	1155	Russian Air Force. (52415 sends msg, too weak to copy but guessing a QTC) 52415 DE RJF94 QRV. 52415 QQL XLPE 1150 QBD 3500 QRE XLMV 1305 RPT AL. RJF94 QQL XLPE 1150 QBD 3500 QRE XLMV 1305
8816	16-2-2013	1230	Russian Air Force. RJC38 RJF94 DE 52415 QTC. 52415 DE RJF94 QRV. 52415 QQL XLMF 1230 RPT AL. RJF94 QQL XUMF 1230. 52415 QQL XLMF 1230 RPT AL. RJF94 QQL XLMF 1230
8816	16-2-2013	1304	Russian Air Force. RJF94 RPT. RJF94 QQL XLMV 1304. 1305z RJF94 OKS
8816	16-2-2013	1352	Russian Air Force. RJF94 DE 30740 QSA? QTC. 30740 DE RJF94 QSA1 QRV. 30740 QTO 1330 QRD XLLV XUOW QAH 5500 QBD 0500 RPT AL. RJF94 QTO 1330 QRD XLLV XUOW QAH 5500 QBD 0500
8112	19-2-2013	1220	Russian Air Force "W" marker

M41
Russian Air Defence Forces
Войска ПВО   Voyska PVO

6343 kHz, 01-02, 0638 UTC:

4376 7526241 43 =
4376 7526247 81 063 45 =
4376 7526248 47 =
4376 7528238 49 =
4376 7528293 51 =
4376 7528293 90 52 =
00 4382 7523978 81 282 52 =
00 4382 7523978 81 10 52 =
4382 7523974 81 000 53 =
4382 7526922 81 025 55 =
4382 7526938 57 =
4382 7526943 59 =
4382 7526184 01 =
438 4382 0341 03 =
PWZW =
0341 7526196 10 03 =

M89
Chinese military

Stations, strings and callsigns:
VVV Q2M Q2M Q2M DE NYZ NYZ
V 7NPE 7NPE 7NPE DE QV5B QV5B
V DKG6 DKG6 DKG6 DE 3A7D 3A7D
V RXP7 RXP7 RXP7 DE CZT2 CZT2
V H2FL H2FL H2FL DE DRV8 DRV8
V WITN WITN WITN DE GNXG GNXG
V MW3D MW3D MW3D DE 2SLC 2SLC

JP comments the following on M89's traffic:
Messages usually contain 99, 199 or 299 groups
1. **The more groups, the faster the message is sent**
2. **Messages by QV5B, GNXG, DRV8, CZT2, 3A7D, and 2SLC on their normal broadcast frequencies are normally electronically sent. Because of this, if you miss the message header, you can guess what the group count for the message was.**
3. **Messages with 99 groups take 5 minutes, 199 groups take 10 minutes, and 299 groups takes 15 minutes. So the above message was probably a 299 group message. Not scientific, but pretty close from my observations thus far.**

4474 kHz, 04-02, 2333 UTC:

A63D N6T7 A4U5 NA4D U7T5 365A 63N4 U7T7D 35N7 4DT6
UA47 6NDT AU35 D5AU 47T3 6N5U DA4N 7T36 5N7UD AT34 76U.
(Cont'd)
AR (silent-2349z, unusual message)

3330 kHz, 08-02, 1602 UTC:

5UN4 D6NT U3A3 3634 4N7N 75TD A6N5 5T65 T6N3 (Cont'd)
AR

3330 kHz, 05-02, 1614 UTC:

64UT N465 37UD 57TA 456U TN74 (Cont'd)
AR

3330 kHz, 07-02, 1634 UTC:

TTTU DNT3 NAA3 ATN7 U7AA 5575 6U33 5TTU 6535 D6U3 643A
T57A (Cont'd)
AR
MSG NR 027 CK 301 44 0208 003

3330 kHz, 08-02, 1735 UTC:

VVV ?? CQ H3 RMKS M781O TO 1783/1158O UGT COMM ARS = =
39169/1783/O3OO/117NR/781O AR
I AR = =
39169/1783/O3OO/117NR/M781O AR AR

5588 kHz, 10-02, 1053 UTC:

TDA6 4DDN T4A7 5T37 3U46 N375 67U6 A77A TUN7 6TDE
AR (1057z silent)

5006 kHz, 10-02, 1038 UTC:

? R R
8W =
A77T AR
R 51W = =
6TN4 AR
8. ? 88W =
A6D4 AR
OK U MSG GA
OK GA
R ? RPT 47W K
RPT 47W K
RPT 47 W K
QSL 1849
R NR 126 SK GB

5763 kHz, 15-02, 0027 UTC:

COMM. /0915/LZ2.9A2/3897/3.74 AR
HR WK NR 16

3330 kHz, 15-02, 0037 UTC:

6734 5.5T 36AN U.D. ND75 N4U. (Cont'd)
AR
NR . CK ... (Fading badly)
MSG NR ... CK ..3 44 ..35 ..
MSG NR 0.3 CK 3.0 44 .1.
NR 03. CK 3.. .. =
(Into 4 Fig cut nr tfc – 0042z)
AR

4225 kHz, 20-02, 1316 UTC:

There is another station on 4225 sending 4 fig cut nr tfc - a bit
louder than QV5B who is very weak on this freq. It turned out that
both stations were on the same freq, so in affect 3 stations active
on this freq counting QV5B!!!

V 7NPE 7NPE 7NPE DE QV5B QV5B
RPT ..N 5 K. //A
WA K K //B (Both stations on this freq)
RPT 8. W //A (1320z)
RPT NR. RPT //A
QS RP 80W //B
R BT 4..VADU K //B
QSL 21.0 K //A
.. K K //B
GB //B (1321z silent)

4474 kHz, 08-02, 1239 UTC:

365D T74N 3A6U U5D4 N7T3 6UN5 3D76 (Cont'd) AR
N4T5 3 D6T. UA5 U47N DT3U 7N56 TUA3 D4T7 36DA (Cont'd. Did
not send a msg header)
AR //A
R QSL 2110 K//B (Both stations on same freq)
R HR ZGA EEEE R 7G GA K//A
NGAK//B
R //A
R AS G NR 65 CK 181 .88 073 08 1000 K//A
K//B
R = 367T ANU4 5D7T 5N43 (Cont'd) //A
AR//A
= 3D67 U5NA .T3U 5D7A T6.. (Cont'd)
AR //A
= 3D6. //A (Begins a msg without sending msg header)
(All of the messages being sent are extremely long)
AR //A

4590//7607 lHz, 11-02, 1126 UTC:

In progress
3T45 N6U. T5.3 6N37 N67U 6NUA (Cont'd) AR .. K

3330 kHz, 11-02, 1130 UTC:

CK 301 44 0211 1930 =
5DU6 NTTA 3.T5 T3A7 A5T. (Cont"d)
MSG NR 041 CK 301 44 0211 1930 =
5DU6 NTTA 3DT5 T3.7 A5TN D5D7 DTA6 (Cont'd – Repeat of msg)

3330 kHz, 18-02, 2201 UTC:

T576 TN5A 7UA7 5T7D DU55 5U3A (Cont'd)
= UADN AR

4225 kHz, 19-02, 1156 UTC:

MSG NR 1053 155230219 1930 K K =
AT53 A55A 3TUA NAN3 TKK
AI6
AS ..(Silent 1200z)

3797 kHz, 20-02, 2000 UTC:

In traffic /993/A/91/31 AR
UGT COMM = 750/5269/5979/02/21/0430/993/A/91/31 AR
UGT COMM = 750/5269/5979/02/21/0430/993/A/91/31 AR

4512 kHz, 20-02, 2225 UTC:

TN55 5.DD A6UA A.A5 34D6 UD47 753N (Cont'd)
AR

3725 kHz, 26-02, 1225 UTC:

4756 AN45 7ND4 A6TN 3A45 A47N 6DN7 76UN (Cont'd)
AR HR WK NR .6 (Return to round slip 1228z)

3330 kHz, 27-02, 1801 UTC:

VV VV .. COQ3AE 7810 TO 5254/1580
UGT COMMS BT 39169/5254/0300/117NR/7810 AR
AR = = 39169/5254/0300/117NR/7810 AR AR

VARIOUS MODES

SK01 / HM01
Dirección General de Inteligencia

frequency	date	UTC	mode	remarks
11530	1-2-2013	2300	AM/RDFT	36411 66434 72266 36762 33334 87404
9065	4-2-2013	0800	AM/RDFT	87245 80875 78322 28804 68663 36417
9065	4-2-2013	0849	AM/RDFT	in progress
10715	4-2-2013	2205	AM/RDFT	in progress
11530	6-2-2013	2300	AM/RDFT	34232 56361 27522 78325 44502 68666
16180	7-2-2013	2100	AM/RDFT	34233 53642 27523 78326 44503 68667
16180	7-2-2013	2100	AM/RDFT	34233 file 70384586.TXT 53643 file 81820097.TXT 27253 file 74741802.TXT 78326 file 48057481.TXT 44503 file 15577711.TXT 68667 file 67882876.TXT
9065	8-2-2013	0800	AM/RDFT	34233 53642 27253 78326 44503 68667) QSA2
17540	13-2-2013	2300	AM/RDFT	81552 53647 07861 08255 54301 56234
17540	14-2-2013	2300	AM/RDFT	81554 38512 07863 32561 54303 30071
11530	15-2-2013	2300	AM/RDFT	YL and RDTF data
17540	16-2-2013	2300	AM/RDFT	81556 38514 07865 32563 54305 30073
10715	17-2-2013	2200	AM/RDFT	64611 38515 07866 32564 54306 30074
11530	17-2-2013	2300	AM/RDFT	64611 38515 07866 32564 54306 30074
17540	19-2-2013	2300	AM/RDFT	64614 68762 13812 32567 28322 30077]
16180	21-2-2013	2101	AM/RDFT	ip YL Spanish, she said 5 digit number alternating with digital traffic
11635	22-2-2013	2116	AM/RDFT	ip YL Spanish, she said 5 digit number alternating with digital traffic
17540	23-2-2013	2300	AM/RDFT	74403 48263 45611 78147 84463 32802
17540	23-2-2013	2300	AM/RDFT	64618 68766 13816 78144 28326 56434
17538	24-2-2013	2330	AM/RDFT	HM01 - Mixed mode RDFT and YL numbers
11635	27-2-2013	2108	AM/RDFT	numbers station mixed voice+digital
10715	27-2-2013	2200	AM/RDFT	74404 48264 45612 78148 84464 32803
10715	27-2-2013	2209	AM/RDFT	numbers station mixed voice+digital
17540	28-2-2013	2300	AM/RDFT	74405 48265 45613 03741 84465 32804

Fort Vuren, home of the former Dutch 898 Verbindingsbataljon

M42 & X06

Russian Government & Intelligence

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

frequency	date	UTC	enigma	mode	remarks
7630	29-1-2013	0732	M42	RUS-ARQ 100/500	Russian Gov/Intel.
16166.5	30-1-2013	0632	M42	CROWD-36	Russian diplo
18150.5	30-1-2013	0658	M42	RUS-ARQ 100/2000	Russian Gov/Intel.
15250	30-1-2013	0817	M42	RUS-ARQ 100/500	Russian Gov/Intel.
15270	30-1-2013	0819	M42	RUS-ARQ 100/1000	Russian Gov/Intel.
23000	30-1-2013	0830	M42	RUS-ARQ 100/1000	Russian Gov/Intel.
5793	31-1-2013	2001	M42	Baudot 200/500	Russian Gov/Intel. 00008++++++++++162 5761
16320	1-2-2013	0154	M42	FSK 200/1000	Russian Intel
14655.5	1-2-2013	0750	M42	CROWD-36	Russian diplo
16320	6-2-2013	0154	M42	FSK 200/1000	Russian Intel.
16320	7-2-2013	0151	M42	FSK 200/1000	Russian Intel.
16320	8-2-2013	0152	M42	FSK 200/1000	Russian Intel.
18713	8-2-2013	1500	M42	CROWD-36	Russian diplo
19441	9-2-2013	1300	M42	FSK 200/500	Russian Intel. 00000++++++++++162)5761
17456	9-2-2013	1320	M42	FSK 200/500	Russian Intel. 00000++++++++++162)5761
15817	9-2-2013	1340	M42	FSK 200/500	Russian Intel. 00000++++++++++162)5761
16320	11-2-2013	0152	M42	FSK 200/1000	Russian Intel.
16320	12-2-2013	0146	M42	FSK 200/1000	Rissian Intel.
16320	13-2-2013	0151	M42	FSK 200/1000	Russian Intel.
16320	14-2-2013	0153	M42	FSK 200/1000	Russian Intel.
16320	15-2-2013	0147	M42	FSK 200/1000	Russian Intel.
10421	18-2-2013	0800	M42	FSK 200/1000	Russian Intel.
8016	18-2-2013	0810	M42	FSK 200/1000	Russian Intel.
11048	19-2-2013	0700	M42	FSK 200/1000	Russian Intel.
11501	19-2-2013	0705	X06	USB	Mazielka. Sequence 123456
9244	19-2-2013	0710	M42	FSK 200/1000	Russian Intel.
7319	19-2-2013	0720	M42	FSK 200/1000	Russian Intel.
11472	19-2-2013	1650	M42	FSK 200/1000	Russian Intel.
9215	19-2-2013	1700	M42	FSK 200/1000	Russian Intel.
7637	19-2-2013	1710	M42	FSK 200/1000	Russian Intel.
4565	20-2-2013	1630	X06	USB	Mazielka in progress. Sequence: 212112
16320	21-2-2013	0150	M42	FSK 200/1000	Russian Intel. Id 0x71
16320	25-2-2013	0150	M42	FSK 200/1000	Russian Intel.
5801	26-2-2013	1745	X06	USB	Mazielka. Sequence 123456
6942	26-2-2013	1900	X06	USB	Mazielka. Sequence 123456
7731	26-2-2013	2030	X06	USB	Mazielka. Sequence 123456
6836	26-2-2013	2200	M42	FSK 200/1000	Russian Intel.

frequency	date	UTC	enigma	mode	remarks
5458	26-2-2013	2210	M42	FSK 200/1000	Russian Intel.
4060	26-2-2013	2220	M42	FSK 200/1000	Russian Intel.
8100	26-2-2013	2300	M42	FSK 200/1000	Russian Intel.
6784	26-2-2013	2310	M42	FSK 200/1000	Russian Intel.
16320	27-2-2013	0150	M42	FSK 200/1000	Russian Intel.
16320	28-2-2013	0150	M42	FSK 200/1000	Russian Intel

Daniel copied several Russian Intel transmissions and decoded them with Ian Wraith's Rivet (build 49).
Below a long transcript transmitted on 16320 kHz, 07-02, 0151 UTC, mode: FSK 200/1000

13:27:29 FSK200/1000 Sync Sequence Found

Block No 0 : Total Message Size 3 blocks
7d,12,b0,e6,00,00,00,00,00,00,40,00,10,00,00,00,00,0c,20,09,00,09,00,01,00,04,00,08,60,08,e0,0f,70,1f,f0,00

Block No 0 : Total Message Size 3 blocks
7d,12,b0,e6,00,00,00,00,00,00,40,00,10,00,00,00,00,0c,20,09,00,1b,00,01,00,04,00,08,60,08,e0,0f,30,0a,f0,00
Block No 0 : Total Message Size 1 blocks 7d,12,b0,e6,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,7f,ff,ff,ff

13:36:43 FSK200/1000 Sync Sequence Found Block No 3
7d,12,b0,ee,00,77,39,cf,60,d9,c1,c9,21,41,48,18,1c,3c,ff,ff,fd,fc,a1,32,9b,bd,78,e8,dc,55,bc,e5,30,68,a1,7a
Block No 3
7c,12,b0,e6,00,66,e8,ef,b0,3d,ec,59,9f,00,ad,c4,b0,2f,6c,c1,fd,6f,86,22,a3,17,ec,c2,89,41,83,8e,0e,05,2b,83
Block No 5
7d,12,b0,e6,00,aa,f8,14,71,9a,0a,1f,9c,e6,05,17,38,c8,4a,21,fb,fc,dc,c7,bf,cd,ec,3d,78,9d,bb,01,67,68,29,2b
Block No 14
7d,12,b0,e6,01,cc,3a,0e,91,3c,7c,7f,e3,35,14,23,22,fb,75,12,2c,cf,7c,16,92,9b,62,dc,12,a8,5c,87,55,b3,64,a0
Block No 7
7d,12,b0,e6,00,ff,75,bd,bd,84,a1,e6,29,55,d2,f0,6b,b0,2c,5b,3b,25,ad,58,d2,1d,b3,35,66,98,8d,48,37,bd,ff,fe
Block No 9
7d,12,b0,e6,01,25,04,3a,ee,f3,68,67,5b,f8,cd,93,a7,fe,c3,f9,ff,7f,f8,9a,38,eb,6a,93,20,60,eb,a7,4f,ff,1b,79
Block No 10
7d,12,b0,e6,01,43,1c,77,ff,e0,72,c0,cd,f2,dc,37,ac,27,94,66,ac,2f,95,8f,30,1f,fb,e3,f7,f8,ef,fc,f9,e5,e7,03
Block No 11
7d,12,b0,e6,01,70,4c,38,ec,48,bb,0b,82,50,fc,27,6d,4a,e4,4d,58,e2,8a,39,49,fc,d3,48,20,00,35,d0,e8,a1,8b,8f
Block No 15
7d,12,b0,e6,01,fc,48,c4,14,ee,9d,c4,7a,49,1e,e3,e2,2a,c8,97,ff,ff,3f,3b,bc,2e,80,a6,c9,86,fe,7b,d2,f6,f0,c3
Block No 14
7d,12,b0,e6,01,da,e4,4e,fc,4a,15,41,82,95,ba,10,44,3a,db,c5,a4,e9,a4,a4,95,f0,33,70,c0,41,ad,37,e1,78,3b,fc
Block No 15
7d,12,b0,e6,01,e1,00,00,66,ba,4c,e3,76,56,13,40,ea,2f,46,41,8f,fc,ae,3b,65,8f,bf,df,9b,4b,6b,6d,ed,1d,b1,90
Block No 21
7d,12,b0,e6,02,b4,24,a2,69,c1,7d,fe,db,f0,18,7b,fd,dd,76,0e,e3,c7,ba,d8,36,e2,5b,da,4e,cc,2f,57,e1,e0,f9,ff
Block No 22
7d,12,b0,e6,02,d2,2e,0c,b7,33,e0,f9,77,87,fe,17,20,40,21,cf,19,db,dd,7a,f3,e3,ac,e1,cf,3d,fd,1c,f5,69,99,be
Block No 23
7d,12,b0,e6,02,e1,19,da,4c,7f,3f,f6,38,03,82,00,8c,d5,77,45,3e,98,24,ef,0f,bf,f7,d8,01,9e,a4,3d,81,df,61,a5
Block No 24
7d,12,b0,e6,03,08,d4,25,72,cd,b8,b3,64,f3,6b,cf,df,08,a6,9c,22,27,86,39,0f,e4,bf,1b,fc,1f,ff,fb,6f,33,b8,80
Block No 25
7d,12,b0,e6,03,3b,45,98,6c,f4,48,63,b4,50,c6,11,c4,90,97,1f,e6,b3,88,84,c9,7d,4e,ff,58,73,ff,7f,ff,bb,ff,fb
Block No 27
7d,12,b0,e6,03,6e,ed,e1,90,49,6b,75,ce,09,6d,03,81,52,f1,b1,00,2f,d6,ec,24,c8,50,94,7a,5c,13,e4,ff,f8,b3,ff
Block No 30
7d,12,b0,e6,03,c4,ff,cf,fb,ff,c7,df,f2,e9,b0,a6,e4,92,7a,2b,bc,73,22,8d,63,d5,da,91,54,e9,bd,4b,2c,35,40,e7
Block No 31
7d,12,b0,e6,03,f7,ff,e7,ff,c0,ae,7c,e9,61,f9,d4,b1,2b,87,32,fb,76,8f,5f,3f,ce,7b,39,b0,7c,fd,ff,ff,78,fe,0a
Block No 33
7d,12,b0,e6,04,2b,e2,00,90,00,c9,b0,68,60,3d,40,da,1f,bf,8c,66,0d,98,0f,a0,9c,55,98,02,5b,e7,4b,85,c2,19,d4

Block No 1 (Addressee Identifier ? 0xaf) (7th of month)
7d,12,b0,e6,00,33,38,ef,f0,fd,e1,ed,b1,e0,a4,04,06,0e,7f,ff,fe,fe,f1,bb,df,ff,fc,fc,6e,2a,de,72,98,34,50,bd
Block No 3
7d,12,b0,e6,00,7f,fe,ff,db,c7,f8,fe,ff,fc,06,c1,08,1d,c6,0d,33,76,58,89,d8,fd,e6,c1,fd,ff,df,26,26,ee,6c,f0
Block No 3
7d,12,b0,e6,00,66,e8,af,b0,3d,ec,59,9f,00,ad,c4,b0,2f,6c,c1,fd,6f,86,22,a3,17,ec,c2,89,41,83,8e,0e,0f,29,81
Block No 5
7d,12,b0,e6,00,aa,f8,14,71,9a,0e,3f,bc,e6,05,17,38,c8,4a,20,f9,6c,4c,42,9b,c4,a4,3f,f9,bf,ff,03,ef,f8,7b,7f
Block No 7
7d,12,b0,e6,00,ff,75,bd,bd,84,a1,e6,29,55,d2,f0,6b,b0,2c,5b,3b,25,ad,58,d2,1d,b3,35,66,98,8d,48,32,94,ff,6e

21

Block No 8

7d,12,b0,e6,01,16,eb,18,7a,3a,bc,2f,4c,b3,f2,33,ff,38,33,1c,ff,ff,d7,b2,8b,7d,01,03,ed,ef,3b,77,ff,f8,bd,ff

Block No 10

7d,12,b0,e6,01,43,1c,32,da,a0,72,c0,cd,f2,dc,37,ac,27,94,66,ac,2f,95,8f,30,1b,d9,61,f2,d8,67,fc,69,e5,e7,03

Block No 11

7d,12,b0,e6,01,70,4c,79,fc,d9,ff,1f,86,f1,fc,6f,ff,df,ec,df,f9,e7,8a,39,49,fc,d3,48,20,00,35,d0,e8,a1,8b,8d

Block No 12

7d,12,b0,e6,01,8f,03,1f,e2,9c,66,8c,6c,c6,2c,89,e5,df,88,de,77,a3,21,b7,1f,83,c0,e4,3a,2b,35,ee,9b,de,f8,b1

Block No 13

7d,12,b0,e6,01,bc,48,c4,1c,ee,9d,c4,7a,49,1e,c3,e2,2a,c8,97,f7,ff,ff,7f,fc,7f,81,ef,db,8d,fe,ff,f7,ff,f0,c3

Block No 14

7d,12,b0,e6,01,df,ec,df,fc,de,3f,c1,80,05,ba,10,44,3f,ff,81,00,c3,49,49,6b,f0,66,e1,80,83,5a,6f,c2,f0,77,f8

Block No 15

7d,12,b0,e6,01,e9,24,14,66,ba,5c,e3,76,56,13,40,ea,2f,46,41,8b,6c,ae,3b,65,8f,bd,4e,9b,4b,6b,6d,ed,1d,b1,90

Block No 16

7d,12,b0,e6,02,1f,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0f,e0,0f,80,1f

Block No 19

7d,12,b0,e6,02,78,03,88,b7,d5,9a,2a,3b,18,d2,27,f5,11,39,10,de,9c,5e,4f,37,31,23,ca,ec,f8,ff,f3,3f,83,f9,80

Block No 21

7d,12,b0,e6,02,b4,2c,a2,69,c1,34,de,49,70,08,39,55,dd,76,0e,63,c7,ba,d8,36,e2,5b,da,ce,cc,3f,ff,e1,e0,58,ab

Block No 31

7d,12,b0,e6,03,f2,2e,0c,d3,19,e0,58,33,82,aa,17,30,60,b5,ef,9c,ed,ee,bd,79,f1,d6,70,e5,9c,6e,8e,7a,b4,cc,df

Block No 23

7d,12,b0,e6,02,e1,19,da,4c,3e,1f,f6,38,07,86,01,9d,ff,ff,cf,7f,b8,6d,ff,07,bf,f7,d8,03,bf,ec,7f,81,8d,e3,ef

Block No 25

7d,12,b0,e6,03,3b,45,98,6c,f4,48,63,b4,50,c6,11,c4,90,97,1f,e6,b3,88,84,c9,7d,4e,ff,f8,f3,ff,7f,ff,bb,fb,a9

Block No 27

7d,12,b0,e6,03,6e,ed,e1,90,49,6b,75,ce,09,6d,03,81,52,f1,b1,00,2f,d6,ec,24,c8,50,94,7a,5c,13,e4,bd,a8,91,ef

Block No 29

7d,12,b0,e6,03,a2,fe,23,7b,aa,17,58,08,75,db,02,2e,ea,6b,ff,93,fe,66,f7,ff,ff,ff,fc,ed,ef,7c,01,c1,8f,ff,6c

Block No 31

7d,12,b0,e6,03,f7,bd,63,b7,c0,fe,f9,d2,c3,f3,a9,e6,ff,1e,ef,ff,ff,3f,ba,3d,9c,f6,73,61,fb,fb,ff,fe,f1,fc,3d

Block No 33

7d,12,b0,e6,04,2b,e2,00,90,00,c9,b0,68,60,3d,40,de,3f,bf,8c,66,1f,b8,1f,e1,bc,e1,10,00,13,c6,4b,85,c2,19,d4

Block No 0 : Total Message Size 35 blocks 7d,12,b0,e6,00,00,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02 ,30,00,00,0a,e0,0f,80,0a

Block No 2

7d,12,b0,e6,00,55,6a,5b,49,43,58,6a,26,d4,02,c1,08,1c,42,0d,33,77,58,09,fc,fe,a2,40,74,bb,cd,26,26,ee,6c,f0

Block No 5

7d,12,b0,e6,00,aa,f8,14,71,9a,0a,1f,9c,e6,05,17,38,c8,4a,20,fb,fc,dc,c7,bf,cd,ec,7f,f9,bf,ff,03,ef,f8,7b,7f

Block No 7

7d,12,b0,e6,00,ff,75,bd,bd,84,a1,e6,29,55,d2,f0,6b,b0,2c,5b,3b,25,ad,58,d2,1d,b3,35,66,98,8d,48,32,94,ff,fe

Block No 11

7d,12,b0,e6,01,70,4c,38,ec,48,bb,0b,82,50,fc,2f,ff,df,ec,df,f9,e7,9e,7b,db,fd,d3,48,20,00,35,d0,e8,a1,8b,8d

Block No 12

7d,12,b0,e6,01,8f,03,1f,22,9c,ef,9c,fd,ce,7d,9b,ef,ff,88,de,77,a7,63,ff,3f,83,c0,e4,fe,7f,7f,ff,bf,ff,f9,f3

Block No 14

7d,12,b0,e6,01,da,e4,4e,fc,4a,15,41,82,95,ba,00,44,3a,db,85,a5,e9,a4,a4,95,f0,33,70,c0,41,ad,37,e1,78,3b,fc

Block No 15

7d,12,b0,e6,01,e9,24,14,66,ba,5c,e3,76,5e,37,c0,fa,2f,46,41,8b,64,ae,3b,65,8f,bd,4e,9b,4b,6b,6d,ed,1d,b1,90

Block No 20

7d,12,b0,e6,02,87,2c,70,29,4a,8a,26,7f,ec,c1,a8,d8,5b,c4,f7,58,6a,a8,9c,20,00,28,4f,83,8f,fe,30,b1,01,d6,7a

Block No 21

7d,12,b0,e6,02,b4,24,a2,69,c1,34,de,49,70,08,39,55,df,fe,0e,63,c7,ba,d8,36,e2,5b,ff,df,fc,7f,ff,e1,e0,f9,eb

Block No 22

7d,12,b0,e6,02,d2,2e,0c,93,11,e0,58,33,87,fa,17,30,60,b5,ef,9c,ed,ee,bd,79,f1,d6,70,e5,9c,6e,8e,7a,b4,cc,df

Block No 23

7d,12,b0,e6,02,e1,1b,fe,dc,7e,3f,f6,38,07,86,00,8c,d5,77,45,3e,98,24,af,03,9e,b2,c8,01,9e,a4,3d,81,8d,61,a5

Block No 24

7d,12,b0,e6,03,00,54,27,f3,df,f9,f7,ed,f7,fb,cf,4d,08,a6,9c,22,27,86,39,0f,ed,ff,1b,fc,0d,ef,59,27,37,f9,cc

Block No 27

7d,12,b0,e6,03,6e,ed,e1,90,49,6b,75,cc,01,6d,03,81,52,f3,f3,00,2f,d6,ec,24,c8,50,94,7a,5c,13,e4,bd,a8,91,6d

Block No 28

7d,12,b0,e6,03,91,ab,62,38,56,fb,38,1c,10,d8,77,9e,2e,2d,32,92,75,15,e3,8c,a6,eb,6e,66,88,ce,b9,5f,49,ff,3f

Block No 29

7d,12,b0,e6,03,a2,fe,23,7b,aa,17,48,08,75,db,02,2e,ea,6b,eb,93,b4,22,73,ad,b7,5f,7c,64,e5,3c,00,c0,87,d5,24

Block No 30

7d,12,b0,e6,03,c4,bd,45,f9,6f,43,4d,72,61,30,a6,e4,00,7a,2b,bc,73,22,8d,63,fd,da,91,54,e9,bd,4b,3c,35,c0,e7

Block No 0 : Total Message Size 35 blocks

7d,12,b0,e6,00,00,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0a,a0,0f,80,02

Block No 1 (Addressee Identifier ? 0x1f) (Corrupt Date) 3d,12,b0,e6,00,33,9d,f7,f8,7e,f0,f6,d8,50,12,02,03,05,1b,ff,ff,7f,78,dd,ef,ff,9c,12,37,15,7f,79,dc,3e,78,ff

Block No 3

7d,12,b0,e6,00,66,e8,af,b0,3d,ec,59,9f,00,ff,cd,f0,7f,ec,c1,fd,6f,86,22,a3,1f,fd,e7,9b,c1,83,8e,0e,05,29,81

Block No 4

7d,12,b0,e6,00,98,0f,e0,f1,7f,3f,81,2e,62,b9,53,2f,00,ce,6a,91,38,90,77,ec,2e,7d,8d,ee,b6,1d,96,1f,91,07,cd

22

Block No 5
7d,12,b0,e6,00,aa,fc,1e,79,df,0f,1f,de,f7,02,8b,9c,64,25,10,7c,b6,26,21,4d,e2,52,1e,bc,4e,dd,80,b3,b4,14,95
Block No 6
7d,12,b0,e6,00,cc,3a,0e,93,3c,7c,ff,f3,7f,3c,67,67,fb,ff,12,2c,cf,7c,16,92,9b,62,dc,12,a8,5c,87,55,b3,6d,e0
Block No 8
7d,12,b0,e6,01,16,eb,18,7a,3a,bc,2f,4c,b3,f2,33,be,70,26,e8,da,b6,af,65,16,fa,02,07,db,de,ff,ee,ff,b1,79,7b
Block No 9
7d,12,b0,e6,01,25,04,3a,ee,f3,68,67,5b,f8,cd,93,a7,56,41,fd,ff,35,e8,9a,38,eb,6a,93,20,60,eb,a7,4f,ff,1b,79
Block No 10
7d,12,b0,e6,01,43,1c,32,da,a0,72,c0,cd,f2,dc,37,ac,27,94,66,ac,2f,95,8f,30,1b,d9,61,72,d8,67,fc,69,e5,e7,03
Block No 11
7d,12,b0,e6,01,70,4c,38,ec,48,bb,0b,82,50,fc,27,6d,4a,e4,df,f9,e7,8a,39,49,fc,d3,48,20,00,3d,f1,f9,e3,9f,8d
Block No 12
7d,12,b0,e6,01,8f,03,1f,22,9c,66,8c,6c,c6,2c,89,e5,df,88,de,7f,f3,b1,ff,9f,c3,e0,f4,3d,1f,bf,ff,df,ff,fc,f9
Block No 14
7d,12,b0,e6,01,da,e4,4e,fc,4a,15,41,82,97,fe,30,cc,7f,ff,cf,ed,fb,ed,ed,bf,f0,77,f0,c0,c3,ff,7f,e1,78,3b,fc
Block No 15
7d,12,b0,e6,01,e9,24,14,66,ba,5c,e3,76,56,13,40,ea,2f,46,41,8b,6c,ae,3b,65,8f,bd,46,09,03,2b,6d,ed,1d,b1,90
Block No 16
7d,12,b0,e6,02,1e,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0f,c0,06,70,00,00,1f,e0,1f,80,1e
Block No 18
7d,12,b0,e6,02,4b,2e,5b,4e,83,69,9b,e5,b9,70,f0,45,a6,8d,7f,3a,6f,f9,f1,5c,c0,8e,7f,ff,ff,ff,ff,0f,ff,ff,6c
Block No 20
7d,12,b0,e6,02,87,2c,70,29,4a,8a,26,7e,d9,83,79,f8,ff,cd,ff,f8,ff,f1,38,40,00,50,9f,02,0e,fc,61,62,03,d6,7a
Block No 31
7d,12,b0,e6,03,fc,6d,e6,69,c1,34,de,49,70,1c,7b,ff,ff,fe,0e,41,87,ba,d8,36,e2,7f,ff,df,cc,2f,55,60,a0,58,ab
Block No 22
7d,12,b0,e6,02,d2,2e,0c,93,11,e0,58,33,82,aa,17,30,60,b5,ef,9c,ff,ff,ff,fb,f3,fe,70,e5,9c,7f,9e,ff,fc,88,9e
Block No 24
7d,12,b0,e6,03,08,d4,25,72,cd,b8,b3,64,f3,69,47,0d,08,a2,1c,22,27,86,39,0f,f4,ff,04,da,06,f7,ac,93,89,dc,62
Block No 25
7d,12,b0,e6,03,3b,45,98,6c,f4,48,63,90,50,c6,10,c0,80,03,0f,e6,b3,99,8d,db,ff,df,ff,f8,f3,ff,7f,ff,b9,ab,eb
Block No 27
3d,12,b0,e6,03,6e,ef,e1,90,49,6b,75,ce,09,6d,03,81,52,f1,b1,00,2f,ff,fc,6d,d8,f1,bc,7a,5c,13,e4,bd,a8,91,6d
Block No 28
7d,12,b0,e6,03,91,ab,66,38,56,fb,38,1c,10,d8,77,9e,2e,2d,32,92,75,1d,e3,8c,a6,eb,6e,66,88,ce,b9,5f,49,ff,3f
Block No 63
7d,12,b0,e6,07,e7,fe,e7,ff,fe,17,48,08,75,db,02,2e,ea,6b,eb,93,b4,22,73,0d,b7,5f,7c,64,ef,7c,01,c1,8f,fd,24
Block No 30
7d,12,b0,e6,03,c0,3d,45,f9,6f,43,4d,72,e9,b0,a6,e4,92,7a,2b,bc,73,22,8d,63,d5,da,91,54,e9,bd,4b,2c,3f,c1,ef
Block No 99
7d,12,b0,e6,0c,7f,e6,01,b0,00,c9,b0,68,60,3d,40,da,16,9a,84,22,0d,98,0f,a0,bc,ff,b8,06,ff,ef,df,8f,ce,3b,c4
Block No 0 : Total Message Size 1 blocks
7d,12,b0,ee,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,03,50,00,00,00,00,00,00,00,00
Block No 1 (Addressee Identifier ? 0xaf) (7th of month)
7d,12,b0,e6,00,33,18,e7,b0,6c,e0,e4,90,a0,a4,04,06,0e,3f,ff,fe,fe,f1,bb,cd,de,bc,74,6e,2a,de,72,98,34,50,bd
Block No 3
7d,12,b0,e6,00,62,e8,af,b0,3d,c8,11,9f,00,ad,c4,b0,2f,6c,c1,fd,6f,86,22,a3,17,ec,c2,88,41,83,8e,1e,05,29,81
Block No 4
7d,12,b0,e6,00,99,5f,e9,f1,7f,3f,81,2e,62,b9,53,2f,00,ca,6a,93,79,b0,ff,fc,7e,ff,8d,ee,b6,1d,9e,3f,91,07,cd
Block No 5
7d,12,b0,e6,00,aa,f8,14,71,9a,0a,1f,9c,e6,05,17,38,c8,4a,20,f9,6c,4c,c7,bf,c4,a4,3d,78,9d,bb,01,67,68,29,2b
Block No 6
7d,12,b0,e6,00,cc,3a,0e,91,3c,7c,7d,a1,35,14,23,22,fb,75,12,2c,cf,7c,16,80,12,41,b8,25,50,b9,0e,ab,66,c9,40
Block No 10
7d,12,b0,e6,01,43,1c,32,da,a0,72,c0,cd,f2,dc,37,ac,27,94,66,ac,2f,95,8f,30,1b,d9,61,f2,d8,67,fc,79,ef,ef,07
Block No 13
7d,12,b0,e6,01,bc,48,c4,1c,fe,9d,c4,7a,49,1e,c3,e2,2a,c8,97,f5,f7,3f,3b,bc,2e,80,a2,c9,84,be,5b,f3,ff,f1,c7
Block No 15
7f,12,b0,e6,01,e9,24,04,66,ba,5c,e3,7e,fe,37,c0,ea,2f,46,41,8b,6c,ae,3b,65,8f,fd,4e,9b,df,eb,6d,ed,1d,b1,90
Block No 16
7d,12,b0,e6,02,1e,00,00,c0,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0a,a0,0f,80,0a
Block No 18
7d,12,b0,e6,02,4b,2e,5b,4e,83,69,9b,e5,b9,70,f0,45,a6,8d,7f,3e,ff,fb,f3,fd,c0,8e,6b,ad,e9,6e,ab,06,bb,f7,24
Block No 19
7d,12,b0,e6,02,78,03,88,b7,d5,9a,7e,7f,39,f6,6f,ff,33,7b,31,ff,9c,5e,4f,37,31,23,cb,fc,f8,ff,f1,1a,81,78,80
Block No 21
7d,12,b0,e6,02,b4,24,a2,69,c1,34,5e,48,70,08,39,55,dd,76,0e,63,c7,ba,d8,36,e2,5b,da,ce,cc,3f,ff,e1,e0,f9,ff
Block No 23
7d,12,b0,e6,02,e1,19,da,4c,2a,02,b2,18,03,82,00,84,40,33,00,1e,08,00,07,03,9e,b2,c8,01,9e,a4,3f,83,9f,e3,ef
Block No 26
7d,12,b0,e6,03,5d,30,41,ff,44,74,fb,2f,3b,c1,e0,7f,e3,3c,18,15,dd,ac,3e,3b,58,20,f0,6e,fc,03,2f,ff,ff,0a,6b
Block No 27
7d,12,b0,e6,03,6e,ed,e1,90,49,6b,75,ce,09,6f,03,83,f7,f3,f3,00,2f,d6,ec,24,cc,50,94,7a,58,03,c0,39,00,00,48
Block No 32
7d,12,b0,e6,04,18,00,00,40,00,40,00,10,00,00,00,00,0f,30,01,80,0f,80,01,88,02,a0,01,18,00,00,07,f0,0f,c0,05

23

Block No 1 (Addressee Identifier ? 0xef) (7th of month)
7d,12,b0,e6,00,33,18,ef,f0,fd,e1,ed,b1,e0,e4,04,06,1e,7f,ff,fe,fe,f0,99,4d,de,bc,74,6e,2a,de,72,98,34,50,bd
Block No 2
7d,12,b0,e6,00,55,6a,5b,49,43,58,6a,26,d4,02,c1,08,1c,c6,0d,33,77,58,89,d8,fc,a2,40,f4,bb,cd,26,27,fe,ff,f0
Block No 3
7d,12,b0,e6,00,67,f9,ff,f0,3d,ec,59,9f,00,ad,c4,b0,3f,fd,c3,ff,ff,8e,67,e3,07,c8,80,00,01,03,0c,1c,0a,53,02
Block No 4
7d,12,b0,e6,00,99,5f,e9,f1,7f,bf,c1,bf,73,fd,fb,bf,80,ef,35,48,9c,48,3b,f6,17,3e,c6,f7,5b,0e,cb,0f,c8,83,e6
Block No 5
7d,12,b0,e6,00,aa,f8,14,71,9a,0a,1f,9c,e6,07,bf,79,d8,de,60,fb,fc,dc,c7,9b,c4,a4,3d,78,9d,bb,01,67,68,29,2b
Block No 6
7d,12,b0,e6,00,cc,3a,0e,91,3c,7c,7d,a1,35,14,23,22,fb,75,12,2c,cf,7c,17,b7,bf,e7,fc,37,f8,fd,8f,ff,f7,ed,e0
Block No 8
7d,12,b0,e6,01,16,eb,18,7a,3a,bc,2f,4c,b3,f2,77,fe,f0,6f,f9,ff,ff,ff,ef,3f,fe,06,0f,ff,fe,ff,ef,ff,f3,fb,ff
Block No 14
7d,12,b0,e6,01,da,e4,ff,fc,de,3f,c3,bf,bf,fe,30,cc,7f,ff,cf,ec,e9,a4,a4,95,f0,33,70,c0,41,ad,37,e1,78,3b,fc
Block No 15
7d,12,b0,e6,01,eb,6c,3c,6e,ba,7c,e7,fe,fe,37,c0,ea,2f,46,41,8b,6c,ae,3f,e5,8f,bd,4e,9b,4b,6b,6d,ed,1f,b1,90
Block No 17
7d,12,b0,e6,02,2f,f6,c7,f7,f0,5c,11,f3,0e,37,8e,3d,df,bb,ff,99,ff,ce,c6,0d,5c,18,0c,1c,46,3f,2b,9e,a7,76
Block No 22
7d,12,b0,e6,02,d2,2e,0c,93,11,e0,58,37,87,fe,3f,70,e0,35,ef,9d,ff,ff,ff,fb,f3,fe,f0,e5,9c,6e,8e,7f,fd,dd,ff
Block No 24
7d,12,b0,e6,03,08,d4,25,72,cd,b8,b3,64,f3,69,47,4d,08,a7,9c,22,27,86,39,0f,e4,bf,09,b4,0d,ef,59,27,13,b8,c4
Block No 26
7d,12,b0,e6,03,5d,30,41,ff,44,54,bb,3f,69,c1,e2,7a,e3,3c,18,15,dd,ac,3e,3b,58,20,f0,6e,fc,03,2a,ea,b6,14,d6
Block No 27
7d,12,b0,e6,03,6f,ed,e1,90,49,6b,75,ce,1b,ff,07,83,f7,f3,f3,00,6f,ff,fc,6c,c8,71,bc,fa,fc,13,e0,3d,a9,b3,ff
Block No 30
7d,12,b0,e6,03,c4,bd,45,f9,6f,43,4d,72,e9,b0,a6,e4,92,7a,2b,bc,73,22,9f,e7,ff,ff,b3,fd,f3,7a,96,58,6b,81,ce
Block No 31
7d,12,b0,e6,03,f7,bd,63,b7,c0,ae,7c,e9,61,f9,d4,b1,3b,8f,77,ff,ff,8f,4d,1e,ce,7b,39,b0,7c,ac,b6,bf,28,7e,0a
Block No 32
7d,12,b0,e6,04,18,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0a,a0,0f,80,0a
Block No 33
7d,12,b0,e6,04,2b,e2,00,90,00,c9,b0,68,60,3d,40,df,17,df,c2,11,06,cc,07,d0,4e,2a,cc,01,2d,f3,a5,c2,e1,0c,ea
----
Block No 0 : Total Message Size 35 blocks 7d,12,b0,e6,00,00,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,4 0,06,70,00,00,0f,e0,1f,80,0a
Block No 1 (Addressee Identifier ? 0x1d) (Corrupt Date)
7d,12,b0,e6,00,33,18,e7,b0,6c,e0,e4,d8,d0,10,00,02,05,1b,7e,d7,2b,28,4c,a6,ef,de,3e,37,17,ff,39,4c,1a,28,5e
Block No 7
7d,12,b0,e6,00,ff,75,bd,bd,84,a1,e6,29,55,d2,e0,43,20,18,b6,76,cb,5a,b1,ac,7f,ee,ff,df,73,3f,b0,67,7b,ff,fc
Block No 8
7d,12,b0,e6,01,16,eb,18,7a,3a,bc,2f,4c,b3,f2,33,be,70,27,f9,ff,ff,ff,65,16,fa,02,07,db,de,76,e6,ff,b1,fb,ff
Block No 11
7d,12,b0,e6,01,70,4c,38,ec,48,bb,0b,82,71,fc,6f,ff,df,ec,cd,58,e3,9e,7b,db,fd,d3,48,20,00,35,d0,e8,a1,8b,8d
Block No 12
7d,12,b0,e6,01,8f,03,1f,22,9c,66,8c,6c,c6,2c,89,ef,ff,98,de,77,a3,21,b7,1f,83,c0,e4,7a,2b,35,ee,9b,de,f8,b1
Block No 15
7d,12,b0,e6,01,fb,6c,3c,ef,fe,fd,e7,fe,fe,37,c1,fe,3f,46,41,8b,6c,ae,3b,65,8f,bd,4e,9b,4b,6b,6d,ed,1d,b1,90
Block No 16
7d,12,b0,e6,02,1e,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0a,a0,0f,80,0a
Block No 17
7d,12,b0,e6,02,2d,72,43,f3,d0,5c,11,d1,06,12,86,1c,cd,99,6b,4d,88,b7,c6,42,0d,5c,1a,4c,1c,46,3f,2b,9e,a7,7e
Block No 18
7f,12,b0,e6,02,5b,2e,5b,4e,83,6b,bf,ef,fb,f1,f0,cf,e6,8d,7f,3a,6d,d9,d1,5c,c0,8e,6b,ad,e9,6e,ab,06,bb,57,24
Block No 19
7d,12,b0,e6,02,78,03,88,bf,ff,be,7e,7f,39,d2,27,f5,11,39,10,ff,bc,fe,df,7f,73,03,ca,ec,f8,ff,f1,1a,81,78,80
Block No 20
7d,12,b0,e6,02,87,2c,70,29,4a,8a,26,7e,c8,81,28,d0,7f,cd,ff,f8,ff,f9,9c,20,00,28,4f,81,07,7e,30,b1,01,eb,3d
Block No 21
7d,12,b0,e6,02,b4,24,a2,79,c1,3c,fe,db,f0,10,7b,ff,ff,fe,1e,e7,cf,ff,f8,3f,e2,7f,ff,df,dc,6f,55,60,a0,58,ab
Block No 24
7d,12,b0,e6,03,08,d4,25,72,cd,b8,b3,64,f3,69,47,4d,08,a6,9c,22,27,86,3b,1f,ed,ff,1b,fc,1f,ff,fb,6f,37,f9,cc
Block No 26
7d,12,b0,e6,03,5d,30,41,ff,44,54,bb,2f,29,c1,e2,7f,e3,3c,18,15,dd,ac,3e,3b,78,20,f0,6e,fc,03,2a,ea,b6,14,d6
Block No 28
7d,12,b0,e6,03,91,ab,66,38,56,ff,38,3c,10,f8,ff,be,7e,2d,32,92,75,15,e3,8c,a6,eb,6e,66,88,ce,b9,5f,49,ff,7f
Block No 30
7d,12,b0,e6,03,c4,bd,45,f9,ff,c3,cf,f7,fb,f1,ef,ed,b6,fe,7f,fc,f7,67,9f,e7,ff,ff,b3,f4,e9,bd,4b,2c,35,c0,e7
Block No 31
7d,12,b0,e6,03,f7,bd,63,b7,c0,ae,7c,e9,61,f9,d4,b3,7f,8f,77,ff,ff,9f,df,3f,de,ff,7b,b0,7c,ac,b6,bf,28,7e,0a
Block No 32
7d,12,b0,e6,04,18,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0a,a0,1f,80,1e
----
Block No 0 : Total Message Size 35 blocks 7d,12,b0,e6,00,00,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,1f,00,07,30,1f,c0,06 ,70,60,00,1f,e0,1f,80,1e

Block No 3
7d,12,b0,e6,00,66,e8,af,b0,3d,ec,59,9f,00,ad,c4,b0,2f,6c,c1,fd,6f,86,22,a3,17,ec,c2,89,41,83,8e,0e,05,29,81
Block No 4
7d,12,f0,e6,00,99,5f,e9,f1,7e,3f,81,2e,62,b9,53,2f,00,ca,6a,91,38,90,77,ec,2e,7d,8d,ee,b6,1d,96,1f,91,07,cd
Block No 5
7d,12,b0,e6,00,aa,f8,14,71,9a,0a,1f,9c,e6,05,17,38,c8,4e,61,fb,fc,dc,c7,bf,cd,ec,7f,f9,bf,ff,03,ef,f8,7b,2b
Block No 6
7d,12,b0,e6,00,cc,3a,0e,91,3c,7c,7d,a1,35,14,23,22,fb,75,12,2c,cf,7c,16,92,9b,62,dc,12,a8,5c,87,55,b3,64,a0
Block No 7
7d,12,b0,e6,00,ff,75,bd,bd,84,a1,e6,29,55,d2,f0,6b,b0,0c,5b,3b,25,ad,58,d2,1d,b3,35,66,98,0d,48,32,10,7f,6e
Block No 8
7d,12,b0,e6,01,16,eb,18,7a,3a,bc,3f,4c,b3,f6,37,fe,f0,6f,f9,ff,ff,ff,e5,16,fa,02,07,db,de,76,e6,ff,b1,79,7b
Block No 12
7d,12,b0,e6,01,8f,03,1f,22,9c,66,8c,6c,c6,2c,89,e5,df,88,de,77,a3,21,b7,1f,83,c0,e4,7a,2b,35,ee,9b,de,f8,b1
Block No 13
7d,12,b0,e6,01,bc,40,c4,14,ee,9d,c4,fe,db,3f,c7,e6,7e,c8,97,f5,f7,3f,3b,bc,3f,80,e6,c9,84,bc,ff,e7,ef,f1,c7
Block No 17
7d,12,b0,e6,02,2d,72,43,f3,d0,5c,11,f1,06,12,86,1c,cd,19,6b,df,99,ff,ce,c6,1f,fc,3e,dc,3c,ce,7f,7f,bf,ef,fe
Block No 20
7d,12,b0,e6,02,87,2c,70,29,4a,8a,26,7e,c8,81,79,f8,ff,cd,ff,f8,6a,a8,9c,20,00,28,4f,81,07,7e,30,b1,01,eb,3d
Block No 21
7d,12,b0,e6,02,b4,6d,e6,fb,c3,7d,fe,db,f0,18,7b,ff,ff,fe,0e,e7,c7,fa,d8,3f,e6,7f,ff,df,dc,7f,ff,e1,e0,f9,ff
Block No 23
7d,12,b0,e6,02,e1,19,da,4c,2a,16,b2,18,07,86,01,9d,ff,ff,c5,3e,98,24,af,03,9e,b2,c8,01,9e,a4,1d,81,8d,61,a5
Block No 24
7d,12,b0,e6,03,08,d4,25,72,cd,b8,f3,ed,f7,f9,47,4d,08,ef,bc,66,67,86,39,0f,e4,bf,09,b4,1f,ef,19,27,13,b8,c4
Block No 25
7d,12,b0,e6,03,3b,45,98,6c,f4,48,63,b4,50,c6,11,c4,90,9f,3f,ee,b3,88,84,c9,7d,4e,f7,58,51,5f,3b,55,99,ab,a9
Block No 27
7d,12,b0,e6,03,6e,ff,e1,90,49,6b,75,ce,09,7f,07,00,00,e3,62,00,5f,ad,d8,49,90,a1,28,f4,b8,27,c9,7b,51,22,de
Block No 28
7d,12,b0,e6,03,91,ab,66,38,56,fb,38,1c,10,d8,77,9e,2e,2d,32,92,7f,15,e3,8c,a6,eb,6e,66,88,ce,b9,5f,49,ff,3f
Block No 29
7d,12,b0,e6,03,a2,fe,23,7b,aa,17,48,18,ff,be,04,5f,fe,ff,ff,b7,fc,66,f7,ff,ff,ff,fc,64,e5,3c,00,c0,87,d5,24
Block No 30
7d,12,b0,e6,03,cd,ff,cf,fb,ff,43,4d,73,ff,f1,ef,ed,b6,fe,2b,fc,f3,02,8d,63,d5,da,91,54,e9,bd,4b,2c,35,c0,e7
Block No 31
7d,12,b0,e6,03,f7,bd,63,ff,c1,fe,fd,fb,e3,fb,fd,f3,7f,8f,77,ff,ff,9f,df,1e,ce,7b,3b,f0,fd,ac,b6,bf,28,7e,0a
Block No 32
7d,12,b0,e6,04,18,00,00,40,00,40,00,10,00,00,00,00,0e,20,01,00,0f,00,03,10,0d,40,02,30,00,00,0a,a0,0f,80,0a
----
Block No 0 : Total Message Size 1 blocks 7d,12,b0,e6,00,00,00,00,00,00,00,00,10,00,00,00,00,0e,60,03,00,1f,00,07,30,1f,c0,06, 70,00,00,0f,e0,1f,80,1e
Block No 3
7d,12,b0,e6,00,66,e8,af,b0,3d,ec,59,9f,00,ad,c4,b0,2f,6c,c1,fd,6f,86,22,a3,17,ec,c2,89,41,83,8e,0e,05,29,81
Block No 4
7d,12,b0,e6,00,99,5f,e9,f1,7f,3f,81,2e,62,b9,53,2f,00,ca,6a,91,38,90,77,ec,2e,7f,df,fe,b6,0d,96,1f,91,07,cd
Block No 5
7d,12,b0,e6,00,aa,f8,1c,71,9a,1e,3f,bd,ee,05,1f,30,80,0e,20,f9,6c,4c,42,9b,c4,ac,7f,f9,bf,ff,03,ef,f8,29,2b
Block No 6
7d,12,b0,a6,00,cc,3a,0e,91,3c,7c,7f,a1,3f,3c,67,67,ff,ff,36,7d,df,fc,16,92,9b,20,4c,00,00,0c,03,00,91,24,a0
Block No 7
7d,12,b0,e6,00,ff,75,bd,bd,84,a1,e6,29,55,d2,f0,6f,f0,3c,7f,7f,6f,ff,f9,f6,3f,f7,35,66,98,8d,48,32,94,ff,6e
Block No 8
7d,12,b0,e6,01,16,eb,18,7a,3e,fc,7f,dd,f7,f6,77,fe,f0,26,e8,da,b6,af,65,16,fa,02,07,db,de,77,ef,ff,f3,fb,ff
Block No 10
7d,12,a0,e6,01,43,1c,32,da,a0,72,c0,cd,f2,dc,37,ac,27,94,66,ac,3f,95,8f,30,1f,f9,e1,f3,d8,77,fc,7d,f7,f7,83
Block No 12
7d,12,b0,e6,01,8f,03,1f,22,9c,66,8c,6c,c6,2c,89,e5,df,88,de,77,a3,21,97,1f,83,c0,e4,7a,2b,11,ee,9b,de,f8,b1
Block No 13
7d,12,b0,e6,01,bc,48,c4,14,ee,9d,c4,7a,49,1e,c3,e2,3f,d9,bf,ff,ff,ff,ff,fc,7f,81,ef,db,84,be,5b,d2,f6,f0,c3
Block No 14
7d,12,b0,e6,01,da,e4,4e,fc,4a,15,41,82,95,ba,10,04,3a,db,c5,a4,e9,a4,a4,95,f0,33,70,c0,41,ad,37,e1,78,3f,fc
Block No 15
7d,12,b0,e6,01,e9,24,14,66,ba,5c,e3,f6,7e,17,c1,fe,7f,ce,c3,9f,fd,fe,7f,ef,8f,bd,4e,9b,4b,6b,6d,ed,1d,b1,10
Block No 16
7d,12,b0,e6,02,1e,00,00,40,00,40,00,10,00,00,00,00,0e,30,01,00,0f,00,03,00,05,40,02,30,00,00,0a,a0,0f,80,0a
Block No 17
7d,12,b0,e6,02,2d,72,43,f3,d0,fc,11,d1,06,12,86,1d,df,bb,ff,4d,88,b7,c6,42,0d,1c,1a,4c,1c,46,3f,2b,9e,a7,76
Block No 18
7d,12,b0,e6,02,4b,2e,5b,4e,83,69,9b,e5,b9,70,f0,45,a6,8d,7f,3a,6d,d9,f3,fd,c0,8e,6b,ad,e9,6e,ab,06,bb,57,24
Block No 19
7d,12,b0,e6,02,78,03,88,b7,d5,9a,2a,3b,18,d2,27,f5,11,39,10,de,9c,5e,4f,13,31,23,df,fd,f9,ff,f3,3a,81,78,80
Block No 20
7d,12,b0,e6,02,87,2c,70,3d,ef,cf,37,7f,ec,c1,bc,fc,7f,e6,fb,ac,34,54,4e,10,00,14,27,c0,83,ff,18,58,80,f5,9e
Block No 21
7d,12,b0,e6,02,b4,24,a2,69,c1,34,9c,49,70,08,39,55,df,fe,0e,63,c7,ba,d8,3f,73,7f,ff,ef,ee,3f,d5,60,a0,58,ab

Block No 24
7d,12,b0,e6,03,08,54,25,72,cd,b8,b3,64,f3,69,47,4d,08,a6,9c,22,27,86,39,0f,e4,bf,09,b4,0d,ef,59,27,13,b8,c4
Block No 25
7d,12,b0,e6,03,3b,47,98,6c,fc,48,63,b4,50,c6,11,c4,90,9f,1f,e6,b3,88,8d,df,ff,df,ff,f8,f1,5f,3b,15,99,ab,a9
Block No 27
7d,12,b0,e6,03,6e,ed,e1,90,49,6b,75,ce,09,6d,03,81,52,f1,b1,00,27,d6,ec,24,c8,50,94,7a,5c,13,e4,bd,a8,91,6d
Block No 28
7d,12,b0,e6,03,91,ab,66,38,56,fb,38,1c,10,d8,77,9e,2e,2d,33,92,75,15,e3,8c,a6,eb,6e,66,88,ce,b9,5f,49,ff,7f
Block No 30
7d,12,b0,e6,03,c4,bd,45,f9,6f,43,4d,72,e9,b0,a7,ef,fe,7e,3f,fc,f7,67,9f,e7,ff,ff,b3,7d,e9,bd,4b,2c,35,c0,e7
Block No 31
7d,12,b0,e6,03,f7,bd,63,b7,c0,ae,7c,e9,63,fb,fd,f3,7f,87,32,fb,77,9f,dd,1e,ce,7b,39,b0,7c,ac,b6,ff,78,fe,1e
Block No 33
7c,12,b0,e6,04,3f,f2,00,98,00,ed,f8,7c,70,3f,e0,ff,1f,df,c2,11,07,cc,07,d0,4e,2a,cc,01,2d,f3,a5,c2,e1,0c,fe

---

XP family

8123/7523/6823 kHz, 07-02, 1900 UTC:

158 158 158 1 158 158 158 1 158 158 158 1
Block Sync
6
Message Start
08137 00203 56599 09153 92471 29989 88183 14790 55165 43618 26890 91640 39829 77512 31594
89962 16906 78963 84884 58959 14940 45826 98209 46623 04207 78436 41294 34107 76758 13252
09065 52493 89429 56166 94462 58075 26459 87565 62489 68114 81749 38661 90053 77787 02760
78308 85453 89209 39157 56608 43569 06141 51074 78420 48700 65828 46273 65247 96493 62436
06222 55241 47805 07088
Block Sync
39330 44093 65105 97624 35392 34556 74670 19297 19447 77018 24806 32989 75521 34942 23507
27760 04613 98320 07055 70858 72570 48190 07901 91864 10442 61619 36675 70732 66531 98473
73573 42160 09775 92714 77793 65767 07773 70035 24244 76445917550 34050 74927 98103 50935
24313 80359 56344 36125 51317 90957 32292 71501 17150 61979 36057 90492 94601 60439 69154
17257 75062 00579 01691
Block Sync
41602 40305 21067 75220 02322 76895 16196 32681 59262 35047 29047 09004 01727 60705 66374
97730 76793 96000 45652 09695 02736 29574 00170 72066 04776 72332 43707 57579 02726 79774
96734 90102 66335 26755 63736 74534 42527 75963 72767 77397 76420 59530 25043 77773 00230
39661 40542 45237 09719 70290 90746 64330 00073 20600 79045 02799 06040 73797 09937 74243
47200 60056 55347 06777
Block Sync
57647 60551 65676 44032 02906 07376 47259 74834 96466 90255 00547 45350 94297 47045

XSL a.k.a. Slot Machine
Japan Maritime Self-Defense Force
海上自衛隊*Kaijō Jieitai*

4153, 4231.5, 6250, 6417, 6445, 8313, 8588, 8703.5 kHz.

Mode: QPSK 1500bd

Reportedly telemetry transmitted by the Japanese navy

North Korean diplomatic stations

14124.5 kHz, 21-01, 1300 UTC, DPRK-ARQ 600/600	North Korean embassy Moscow
21318.5 kHz, 30-01, 0820 UTC, DPRK-ARQ 600/600	North Korean embassy New Delhi
21323.6 kHz, 28-01, 0809 UTC, DPRK-ARQ 600/600	North Korean embassy Bangkok
21318.5 kHz, 06-02, 1023 UTC, DPRK-ARQ 600/600	North Korean embassy New Delhi
14741.5 kHz, 07-02, 1025 UTC, DPRK-ARQ 600/600	MFA Pyongyang North Korea. Encrypted messages
16018.5 kHz, 07-02, 1035 UTC, DPRK-ARQ 600/600	MFA Pyongyang North Korea. Encrypted messages
17238.0 kHz, 08-02, 0843 UTC, DPRK-ARQ 600/600	MFA Pyongyang North Korea. All encrypted messages
16248.0 kHz, 08-02, 0913 UTC, DPRK-ARQ 600/600	MFA Pyongyang North Korea. All encrypted messages

Egyptian diplomatic stations

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

9067.7 kHz, 12-02, 1944 UTC:	MFA Cairo. Selcalling OOVF Pyongyang
20123.7 kHz, 15-02, 1508 UTC:	Egyptian Diplo. "hjkj kdhjkj kbs ljok ths grksh kd~d kg~ke kddr lus lus ~j~sjkg kddr lfokshr ykkkkks ykkkkkkks" and offair.
9316.7 kHz, 25-02, 1539 UTC:	MFA Cairo EGY "KDS KDKAU LPS 1 LPS 3 LUS FOKSR KDDR
9044.7 kHz, 25-02, 2241 UTC:	MFA Cairo EGY. Coded telex ends "RD HJKJ SK VKDS HUXD"
9066.7 kHz, 25-02, 2303 UTC:	MFA Cairo EGY. Coded telex ends "RD HJKJ TYS HUXD"
9076.7 kHz, 25-02, 2241 UTC:	Unid Egyptian embassy. Coded telex ends "JG KDFESPSH KDS LKZGCG"
9044.7 kHz, 26-02, 0008 UTC:	MFA Cairo EGY. Selcal to TXIP

Sudanese diplomatic stations

21000.0 kHz, 27-01, 1027 UTC, USB Voice:
   MFA Kharthoum, Sudan calling embassy Yemen for Pactor 1 traffic, whistling male persons

21002.1 kHz, 27-01, 1201 UTC, Pactor-1 100/170: MFA Sudan Kharthoum

Russian Navy
Voyenno-Morskoy Flot Rossii

After a discussion on UDXF we received interesting logs and comments from Peter and Trond. Peter logged a number of T600 transmissions and found several synchronization strings in use on the same transmitter, possibly used for several encryption levels or message types. The locations in his logs are tentative based on ITU bearings.

Trond sorted the strings and comments: *"The distribution of the ITU estimated sources, sync string and frequencies makes me wonder if the Russians use an automated routing system based on frequency availability, MUF, location of recipient, etc, etc. Bearings taken from here indicate 15778 and 20536 to be in the Black Sea area (Sevastopol). 12610 and 12590 indicates a location in the north, most likely Severomorsk area on the Kola peninsula, - the same origin as for 9224. And finally I have indications that 8006 (not in your list) and 16234 originate from the area of St.Petersburg."*

Sorted by sync string, frequency, location

06B41EB	19936 Moscow
1EB41EB295	4258, 4983, 5178 Murmansk, 5202.8, 5242 Moscow, 5398 Kaliningrad, 8656 Smolensk, 9224 Mumansk, 10712 Pskov, 11088 Sevastopol, 12592 Ryazan (?), 12610 Murmansk, 16808 Smolensk, 19936 Moscow, 20536 Sevastopol, 22413, 23452
47AD07ACA	3282, 5398 Kaliningrad, 6877 Murmansk, 7373, 8673, 8787, 10236 Sevastopol, 10712 Pskov, 11524, 12592 Ryazan (?), 16808 Smolensk,
47AD07ACA54	5242 Moscow, 12590 Moscow,
47AD4FACA	19936 Moscow,
70A5F0A	15778,
70A5F0A6	19688 Murmansk,
70A5F0A6B	5178 Murmansk, 5242 Moscow, 9448 Moscow, 10236 Sevastopol, 16234 Smolensk, 16808 Smolensk, 19936 Moscow
75F5A0A0	8508 Moscow (STRATEGIC)
1414BEBE952	11468 Kaliningrad (STRATEGIC)
C297C29A	11088 Sevastopol, 15778, 16234, 19936
C297C29AD5	11524, 19688 Murmansk,
C297C29AD5B	9224 Murmansk, 9448 Moscow, 14581 Smolensk, 16207 Murmansk, 16808 Smolensk,
C297C29DA	8787
D7D68282	6342, 8508 Moscow, 9044 Smolensk, 11468, 12741 Murmansk, 14411 Smolensk, 22864 (STRATEGIC)
E14BE14D6	14581 Smolensk,

Thanks gentlemen. Most interesting.

UTILITY ROUND-UP

Jammers

Ethiopian Government white noise jammer. Jamming the Voice of the Broad Masses of Eritrea on 7170, 7175, 7180, 7185, 7190 kHz. Daily at various times.

Beacons

Cool ! I finally heard several amateur beacons myself via a remote receiver in California. I often heard about them but they are too weak to copy them here in The Netherlands.

04079.0   TMP Beacon, SW California sending temperature msgs "TMP38"
04096.3   DASHER, Joshua Tree NP sending dashes
04102.3   WIND BEACON, SE California. Sending "W" + dots
04094.4   "P" BEACON, Arkansas sending "P"
04095.9   DAHSER, Virginia? sending dashes

Pirates

6996 kHz, 31-01, 1704 UTC: VVV DE HWK7 +

Unid stations

5362.3 kHz, 26-02, 1527 UTC, CW: Unid "TEST" every 6 seconds. (Copied by MPJ)

This unid was copied bij Hans-Friedrich. Please let us know if you can identify this station.

frequency	date	UTC	mode	day	remarks
6796	7-2-2013	2000	CW	Thu	msg 6 54
5205	7-2-2013	2010	CW	Thu	msg 6 54
4030	7-2-2013	2040	CW	Thu	msg 6 54
19441	16-2-2013	1300	CW	Sat	msg 6 55
17456	16-2-2013	1310	CW	Sat	msg 6 55
15818	16-2-2013	1320	CW	Sat	msg 6 55

U.N. MINURSO

Map: http://www.un.org/Depts/Cartographic/map/profile/wsahara.pdf

MINURSO logs submitted by Patrick. Voice transmissions in USB.

6678 kHz, 08-02, 2106 UTC: MINURSO Laayoune
6678 kHz, 08-02, 2106 UTC: MINURSO Awsard
6678 kHz, 08-02, 2109 UTC: MINURSO Oum Dreyga
6678 kHz, 08-02, 2110 UTC: MINURSO Mahbas

Japan Self-Defense Force

Attu reports a Japanese military simplex net on 8017 kHz. He logged the net on 18-02 at 0602 UTC using CW, hand keyed. This net was also reported a long time ago by Igor. On 8017 kHz, 29-11-2004 and on 4578 kHz, 06-02-2007 to be precise. I have nothing else in the combined WUN/UDXF database since 1995.

8017 kHz, 18-02, 0602 UTC, CW: JJG40 sending 5LG messages to JJG60, JJC20, JJC37

Older logs:
4578 kHz, 06-02, 1106 UTC, CW: JJB20 and JJC20 with 4FGs using several Japanese characters.

8017 kHz, 29-11-2004, 0005 UTC, CW, 4LGs.

de jja20 r 401 va
de jjb20 r 401 va
de jje20 va
jjc20 de jja20 o ar ?
jjb20 var l$1 k
de jjc20 ok va va
jjb20 de jja20 qtc var lþ 1 k
de jjb20 k
hr m# var l$ f p^^r w48 b d^^o nr 182 id @ 2908 45 =
szzs o^mp o^mp pzdp rrz@ pspm pzp m^^d dr*m r^m@ ii*
*p^zm d@sr s@sz @orz @r*o @roo s@rp @moo d@sd po@p ii*
dmsd pzsr ^dmz rd@d p^md osr@ rosd prpd prz p^d^ ii*
*@*sd omrp dops o*r@ do*d *z^^ pdoo zprs z@pr dpso ii*
*^sz^ mzm@ @d^@ ^dms dopo *pz@ @osp z^ss ar k*
de jjb20 r 182 va
de jja20 va
jja20 jjd20 jje20 jjb20 de jjc20 qru ? k
de jja20 qru k
de jjd20 qru k
de jje20 qru k
de jjb20 qru k
de jjc20 qru va
de jja20 va
de jjd20 va
de jje20 va
de jjb20 va

Remarks:

Only 10 different characters are being used in the 4-character groups.

The Japanese characters in this message were replaced by the following symbols:

$ for	---.
# for	-..-..
@ for	- .-..
*** for	.-.-
^ for	..--

Polish Air Force

Polish Air Force - 6354 kHz, 21-02. Copied by Tony. Translations by Maciej. Thanks gents.
Tony's recording: http://snd.sc/YHdQng

0730 UTC:	**IPZ to 4DN**
	ASH Otrzymal
	MKX Otrzymal
	Q4K Otrzymal
0732 UTC:	**ASH to 4DN KPYLD?KPCLH**
	4DN to ASH Otrzymal
0740 UTC:	**IPZ TO 4DN (then Polish)**
0741 UTC:	**IPZ to 4DN ??? Telegram rozdzial**
	??? KHEF rodzial
	IJEBL ZRIAD IZYAH WANKU MRHIE LRCZJ
	TIVMQ YDRST FYLFS IYASN
	IPZ IPZ to 4DN rozdzial
	???? for 4DN
0742 UTC:	**4DN to ASH**
	ASH to 4DN Otrzymal
	MKX to 4DN Otrzymal
	Q4K to 4DN Otrzymal
0743 UTC:	**Q4K to 4DN Otrzymal**
	IPZ to 4DN
	IYASN NAJAK UPNYA YEDFJ IELRC HJTIV
	MEILA WOABR XUPVR XCAVT LFLHU TNCPB
	ZADUU WJOCD WKAFY INSXW BUDHC HAYZI rozdzial
	EEANCDUF rozdzial

0746 UTC:	4DN to ASH
	ASH to 4DN Otrzymal
	MKX to 4DN Otrzymal
	Q4K to ADN Otrzymal

Recording at	
2m55s	podaje (po-da-ye) = to pass,to hand out ... a msg in this context
4m35s	zgadza sie; = correct / matched
9m46s	tu 4dn Przyjmijcie telegram. Koniec nadawania. Odpowiedzi
	niepotrzebne = Here 4DN, Receive our telegram. End of transmission. Reply/Acknowledgment not required.
11m52s	Czekac = wait/stand by
12m15s	though 4DN said to go QRT he still TXes. Rozdzial 40 285; 40 285, tu (here is) 4DN, odbior (ready to rx/over)
	then ASH ack that.
13m34s	4DN says Kontynuuje nadawanie = I resume / continue transmitting
15m34s	ADN tu ASH odebrano dwadziescia (20), odbior? = ADN here is ASH, received twenty, over

Notes:
odebrano = received
rozdzial = Chapter
otrzymal = Received

Corrections to Tony's January Polish Air Force logs. Thanks to Maciej for the translations and to Tony for for the logs.

Tony says "Here's the translations I mentioned for January. Pretty much as in the newsletter but there's a change to the callsigns". Tony heard "to" which was in fact "tu" which means "this is". This means that 3VM was not calling 3NQ, it was the other way round and 3NQ calling 3VM: "3VM tu 3NQ". So the collective callsign was 3VM (actually 4VM it turns out)

Log: 6354 kHz, 23-01, 0740 UTC. Recording: https://soundcloud.com/atcmanch/23-Jan-2013-0740-6-354MHz
@ 0:13: dwadziescia trzy (23), pomylka (mistake/error)
@1:30 czekac (wait/stanby)
@1:50 23-234 and then others are asked "odebrano?" (did you receive?)
@3:20 tu 3NQ wznawiam nadawanie od grupy dziesiatej (10th) = here is 3nq resuming tx from 10th group
@5:27 VOM says Odebrano dwanascie (12): 12 received... and other QSL reception
@7:46 4VM tu 3NQ wykonac Tango Delta od kolegi... unreadable = 4VM here is 3NQ, execute Tango Delta from colleague/fellow soldier ???

Log: 6354 kHz, 09-01, 0740 UTC:
@1:24 8S4 odebrano dwadziescia jeden (21) = received 21 rest is unreadable
@3:39 ??X wykonac X-ray Lima , powtarzam wykonac X-ray lima = execute XL, I repeat execute XL (or perform XL in civilian language ;])
@3:51: tu 8S4 wykonuje XL, dobior = here is 8S4 executing XL, over

6354 kHz, 27-02, 0730 UTC: Control = PJH / Collective callsign = B1E / Callsigns = IXB, 4TX, 3TN

0730z B1E this is PJH
Rozdzial PBSZEMPU(authentication code)
BWIJE WPEYT ??AMU ?VNTY ??FYR CVA?V PRDKD ONBRX CAKFO JASFS

B1E this is PJH, confirm received
IXB Odebrano (Received)
4TX Odebrano
3TN Odebrano

Kontynuuje nadawanie, Rozdial (I shall continue with the chapter)
FSGSS SAIHR IBOUT KDQUX KXMAT NCPVR LCL?Q RADAI DHCJS HZUQZ FSTFB WIHEV FBUSB VHNWQ FLSLL
BUWJO ULAJK Rozdial PBSZEMPU

B1E this is PJH, confirm received
IXB Odebrano
4TX Odebrano
3TN Odebrano

Intelligence profile
Colombia

BACKGROUND

Colombia was one of the three countries that emerged from the collapse of Gran Colombia in 1830 (the others are Ecuador and Venezuela). A four-decade long conflict between government forces and anti-government insurgent groups, principally the Revolutionary Armed Forces of Colombia (FARC) heavily funded by the drug trade, escalated during the 1990s. The insurgents lack the military or popular support necessary to overthrow the government, and violence has been decreasing since about 2002. However, insurgents continue attacks against civilians and large areas of the countryside are under guerrilla influence or are contested by security forces. More than 31,000 former paramilitaries had demobilized by the end of 2006 and the United Self Defense Forces of Colombia (AUC) as a formal organization had ceased to function. In the wake of the paramilitary demobilization, emerging criminal groups arose, whose members include some former paramilitaries. The Colombian Government has stepped up efforts to reassert government control throughout the country, and now has a presence in every one of its administrative departments.

GENERAL

Country name:	Republica de Colombia (Republic of Colombia)
Short name:	Colombia
Capital:	Bogota
1 Capital District:	Bogota
32 Departments:	Amazonas, Antioquia, Arauca, Atlantico, Bolivar, Boyaca, Caldas, Caqueta, Casanare, Cauca, Cesar, Choco, Cordoba, Cundinamarca, Guainia, Guaviare, Huila, La Guajira, Magdalena, Meta, Narino, Norte de Santander, Putumayo, Quindio, Risaralda, Archipielago de San Andres, Providencia y Santa Catalina (colloquially San Andres y Providencia), Santander, Sucre, Tolima, Valle del Cauca, Vaupes, Vichada

MILITARY BRANCHES

National Army (Ejercito Nacional), Republic of Colombia Navy (Armada Republica de Colombia, ARC, includes Naval Aviation, Naval Infantry (Infanteria de Marina, IM), and Coast Guard), Colombian Air Force (Fuerza Aerea de Colombia, FAC)

INTELLIGENCE & SECURITY

Departamento Administrativo de Seguridad (DAS) (Administrative Department of Security)
Dirección de Inteligencia de la Policía Nacional (DIPOL)
Agencia Central de Inteligencia (ACI) (Central Intelligence Agency (of Colombia)
Junta de Inteligencia Conjunta (JIC) (Joint Intelligence Committee)
Unidad de Inteligencia Financiera de Colombia
Cuerpo Técnico de Investigación (CTI) de la Fiscalía
Centro de Inteligencia Conjunto D2

Departamento Administrativo de Seguridad (DAS)

DAS' role was tasked in several areas, as it was responsible for providing security to state institutions and personalities, providing judiciary police services and serving as a counter-intelligence service to both external and internal threats. DAS in addition had the purposes of immigration control including issuing visas.
Article 38 of Decree 218 from 2000 states that all employees of DAS had the function of intelligence agents. DAS worked with the Drug Enforcement Administration(DEA), a United States agency against drugs.

In late 2011 Colombian President Juan Manuel Santos announced that the DAS was to be replaced by a new agency, the National Directorate of Intelligence(DNI). The purpose of the new agency will solely be gathering intelligence. However, at the time of writing (Jan.2013) DAS is still alive and kicking.

According to several sources the new name of DAS is now Agencia Central de Inteligencia de Colombia, (ACI). The agency's website does not mention it, though.

The Directorate of Intelligence has four branches.

- **Operations Branch:** Responsible for intelligence collection, and dissemination of information about people, events and situations that can influence political behavior, economic and social or public order and state security.
- **Counterintelligence Branch:** Its main function is to establish the implementation of active and passive counter-intelligence in order to detect, neutralize and counter intelligence activities of different adversaries seeking to obtain classified information, to protect people and facilities against sabotage or equipment.
- **Human Resource Branch:** Responsible for intelligence collection through human sources, assessment, classification and subsequent dissemination of factual situations that may influence the behavior of internal public order or external security of the country the political, economic, social and security.
- **Branch Analysis:** Analysis Branch, seeks, evaluates and analyzes information on strategic issues, at different levels and fields such as economic, political, social and military, both internally and externally, which may affect, impair, alter national security or condition, to identify or create the likely scenarios that will state the immediate or future as a result of internal or external situations, making own or other states.

Junta de Inteligencia Conjunta (JIC)

Trying to overcome the limitations faced by the national intelligence system and within its "defense policy and democratic security", the government implemented an instance-Joint Intelligence Committee, which will bring together law enforcement agencies in the nation and coordinate the national strategic intelligence to the President and the Minister of Defence to access consolidated analysis for effective decision making, harmonizing the distribution of tasks, promoting specialization, horizontal exchange of information and joint outreach successes operational, in order to raise levels of interoperability, for which the Boards have also formed regional intelligence (attached to the JIC), in each department of Colombia.

Dirección de Inteligencia de la Policía (DIPOL)

DIPOL was created in 1995. It includes several departments.

- **The Telematic Service**
- **The Planning Department**
- **The Center of Intelligence;** whose role is to develop research and strategic studies and prospective social, political, economic and cultural, to help guide decision making of the National Government.
- **The Center of Intelligence Data Protection:** responsible for receiving and distributing domestically and in a timely and controlled intelligence information from the regional, sectional and other state security agencies.
- **The Department of International Cooperation** coordinates the exchange of information with international agencies in Intelligence
- **The Department Intelligence Branch** consists of:
    - **Intelligence Production Area:** composed of the intelligence analysis group and the group of signal and image processing.
    - **Counterintelligence Area:** composed of the internal security group, the risk assessment group and the group of internal affairs.
    - **Technical Operations Area:** composed of the operational process group and the group of human sources.
    - **Financial and Administrative Area:** composed of the group of human talent, the support group to the police service, the financial group and the group of recruitment.

Unidad de Inteligencia Financiera de Colombia

The Treasury's UIAF (The Unit of Information and Financial Analysis or UIAF) was created in 1999 and was formed to combat money laundering. The UIAF has broad powers to investigate illegal activity related to drug trafficking, kidnapping, rebellion, extortion, and illicit enrichment.

Cuerpo Técnico de Investigación (CTI) de la Fiscalía

The CTI collects and analyzes information in order to bring criminals to justice and does manage some HUMINT sources

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Military intelligence

The military services each have their own intelligence organizations including a joint intelligence organization, the Centro de Inteligencia Conjunto (D-2), which is responsible for coordinating all military intelligence and a joint intelligence center at Tres Esquinas Military Base, which is primarily focused on drug-related intelligence.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

Departamento Administrativo de Seguridad	http://www.das.gov.co/
Policía Nacional de Colombia	http://www.policia.gov.co/
CTI Fiscalia	http://www.fiscalia.gov.co

Intelligence profile
Panama

BACKGROUND

Explored and settled by the Spanish in the 16th century, Panama broke with Spain in 1821 and joined a union of Colombia, Ecuador, and Venezuela - named the Republic of Gran Colombia. When the latter dissolved in 1830, Panama remained part of Colombia. With US backing, Panama seceded from Colombia in 1903 and promptly signed a treaty with the US allowing for the construction of a canal and US sovereignty over a strip of land on either side of the structure (the Panama Canal Zone). The Panama Canal was built by the US Army Corps of Engineers between 1904 and 1914. In 1977, an agreement was signed for the complete transfer of the Canal from the US to Panama by the end of the century. Certain portions of the Zone and increasing responsibility over the Canal were turned over in the subsequent decades. With US help, dictator Manuel NORIEGA was deposed in 1989. The entire Panama Canal, the area supporting the Canal, and remaining US military bases were transferred to Panama by the end of 1999.

GENERAL

Country name:	Republica de Panama (Republic of Panama)
Short name:	Panama
Capital:	Panama City
3 Indigenous territories:	Embera-Wounaan, Kuna Yala, Ngobe-Bugle
9 Provinces:	Bocas del Toro, Chiriqui, Cocle, Colon, Darien, Herrera, Los Santos, Panama, Veraguas

MILITARY BRANCHES

No regular military forces

INTELLIGENCE & SECURITY

Ministry of Public Service

Consejo de Seguridad Pública y Defensa Nacional (CSPDN) / Council of National Defense and Public Security

Servicio Nacional de Inteligencia y Seguridad (SENIS) / National Intelligence and Security Service

Direccion de Investigacion e Informacion Policial (DIIP) / Directorate of Information and Police Investigation

The Ministry of Public Security controls the

- National Police
- National Borders Service (SENAFRONT)
- National Aeronaval Service (SENAN)
- Institutional Protection Service

Decree N. 9 of 20 August 2008, initiated the reorganization of the Consejo de Seguridad Pública y Defensa Nacional (CSPDN) and created the Servicio Nacional de Inteligencia y Seguridad (SENIS) which includes SENAFRONT and SENAN.

The DIIP belonging to the National Police is in charge of criminal intelligence and police information.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

Police	http://www.policia.gob.pa/
Government	http://www.presidencia.gob.pa/
CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/

Intelligence profile
Peru

BACKGROUND

Ancient Peru was the seat of several prominent Andean civilizations, most notably that of the Incas whose empire was captured by the Spanish conquistadors in 1533. Peruvian independence was declared in 1821, and remaining Spanish forces were defeated in 1824. After a dozen years of military rule, Peru returned to democratic leadership in 1980, but experienced economic problems and the growth of a violent insurgency. President Alberto FUJIMORI's election in 1990 ushered in a decade that saw a dramatic turnaround in the economy and significant progress in curtailing guerrilla activity. Nevertheless, the president's increasing reliance on authoritarian measures and an economic slump in the late 1990s generated mounting dissatisfaction with his regime, which led to his ouster in 2000. A caretaker government oversaw new elections in the spring of 2001, which ushered in Alejandro TOLEDO Manrique as the new head of government - Peru's first democratically elected president of Native American ethnicity. The presidential election of 2006 saw the return of Alan GARCIA Perez who, after a disappointing presidential term from 1985 to 1990, has overseen a robust macroeconomic performance. In June 2011, former army officer Ollanta HUMALA Tasso was elected president, defeating Keiko FUJIMORI Higuchi, the daughter of Alberto FUJIMORI. Since his election, HUMALA has carried on the sound, market-oriented economic policies of the three preceeding administrations.

GENERAL

Country name:	Republica del Peru (Republic of Peru)
Short name:	Peru
Capital:	Lima
1 Province:	Lima
25 Regions:	Amazonas, Ancash, Apurimac, Arequipa, Ayacucho, Cajamarca, Callao, Cusco, Huancavelica, Huanuco, Ica, Junin, La Libertad, Lambayeque, Lima, Loreto, Madre de Dios, Moquegua, Pasco, Piura, Puno, San Martin, Tacna, Tumbes, Ucayali

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MILITARY BRANCHES

Peruvian Army (Ejercito Peruano), Peruvian Navy (Marina de Guerra del Peru, MGP (includes naval air, naval infantry, and Coast Guard)), Air Force of Peru (Fuerza Aerea del Peru, FAP)

Sistema de Inteligencia Nacional -SINA- (National Intelligence Council)
National Intelligence Service (defunct)
Dirección Nacional de Inteligencia -DINI-
Policía Nacional del Perú
Dirección de Inteligencia del Ejército -DIE- (Army Intelligence Directorate)
Servicio de Inteligencia del Ejército (Army Intelligence Service)

With the departure of President Fujimori and Montesinos in 2001, the SIN was dismantled, and the Dirección Nacional de Inteligencia (DINI) was created as Peru's central intelligence coordinating body.

Responsibilities of the DINI include:
- **Produce national intelligence for the President of the Republic and the Council of Ministers for the formulation and implementation of policies and actions**
- **Run counterintelligence activities within their jurisdiction, in accordance with the principles and objectives of the activity in the established intelligence hereof.**
- **Strengthen intelligence estimates referring SINA components for the elaboration of the National Intelligence Plan.**
- **Formulate the National Intelligence Plan and forward it to the Council of National Security and Defense for approval.**
- **Direct, supervise and control the components of the SINA, regarding compliance with the provisions of the National Intelligence Plan.**
- **Establish technical authority regulations nationwide on intelligence and counterintelligence.**
- **Monitor and control compliance with technical standards.**
- **Establish, for reasons of national security, coordination offices and appoint liaison officers in the ministries and agencies, whose holders are subject to the technical standards established for that purpose.**
- **Inform the Intelligence Committee Congress according to the provisions hereof.**
- **Submit periodic management reports to the Presidency of the Council of Ministers on intelligence activities and achievement of goals.**
- **Establish and strengthen cooperative relations with intelligence agencies in other countries.**
- **Develop Intelligence Institutional Plan.**
- **Approve and disseminate intelligence doctrine documents whose content is generally applied by the SINA.**

Legislative Decree No. 371 "Code of the police force" laid the foundations for the definitive establishment of the National Police of Peru.
The Policía Nacional del Perú (PNP) is the national police force of Peru. Its jurisdiction covers the nation's land, sea, and air territories. Formed from the merger of the Investigative Police, the Civil Guard, and the Republican Guard in 1988, it is one of the largest police forces in Latin America. Its mission is to preserve domestic order, public order, and national security, in order to enforce the law and protect the people of Peru. The PNP is controlled by the Peruvian Interior Ministry. The PNP has a number of divisions including DINOES (Special Operations), DINANDRO (Anti-Narcotics Unit), DININCRI (Criminal Investigations), and DIRCOTE (Anti-Terrorism).

Peru's military intelligence community is organized within the nation's army and administered by Army Intelligence Directorate (DINTE). The Army Intelligence Service (SIE) focuses on foreign intelligence and the protection of military installations. In addition, individual military units in the Peruvian navy and air force may maintain their own strategic intelligence forces.

SOURCES / RELATED WEBSITES / FURTHER INFORMATION

Peruvian Police   **http://www.pnp.gob.pe/**
Peruvian Armed Forces   **http://www.ejercito.mil.pe/**
DINI   **http://www.dini.gob.pe/**
DIE   **http://www.ejercito.mil.pe**
Wikipedia
CIA World Factbook   **https://www.cia.gov/library/publications/the-world-factbook/**

LOGS SECTION

The logs are sorted by the code, followed by the date and time

enigma	Freq.	date	day	UTC	remarks	mode	contributor
---	1545	1-2-2013	Fri	1728	The Buzzer. Possibly re-transmitted by a pirate	USB	(Daunt)
---	6796	7-2-2013	Thu	2000	msg 6 54	CW	(HFD)
---	5205	7-2-2013	Thu	2010	msg 6 54	CW	(HFD)
---	4030	7-2-2013	Thu	2040	msg 6 54	CW	(HFD)
---	19441	16-2-2013	Sat	1300	msg 6 55	CW	(HFD)
---	17456	16-2-2013	Sat	1310	msg 6 55	CW	(HFD)
---	15818	16-2-2013	Sat	1320	msg 6 55	CW	(HFD)
---	3195	16-2-2013	Sat	2008	Unid CIS Station. "FM 304 FOR 044 369 999 FM 329 669 FOR 109 089 750 FM 329 669 FOR 108 089 AA QQT NO K ". Then mark idle.	CW	(MPJ)
---	5596	26-2-2013	Tue	2020	BBL4: Unid. "BBL4 784 28 27 0010 784 = 193 = rzbzr fczef zrczb fzrcb bzorc ftdoz rcbdz rbdzd bzfzc dbfoz .. cfquk sfugk sufkg sfkgu snfgk snfgk usnuk fsruk fgsrf gukrs fgruk srkuc zrttc wupwt rpt al k	CW	(WP3)
DPRK	14124.5	21-1-2013		1300	North Korean embassy Moscow	DPRK-ARQ 600/600	(IARUMS)
DPRK	21323.6	28-1-2013		0809	North Korean embassy Bangkok	DPRK-ARQ 600/600	(IARUMS)
DPRK	21323.6	28-1-2013		0811	North Korean Diplo	DPRK-ARQ 600/600	(IARUMS)
DPRK	21318.5	30-1-2013		0820	North Korean embassy New Delhi	DPRK-ARQ 600/600	(IARUMS
DPRK	21318.5	6-2-2013	Wed	1023	North Korean embassy New Delhi	DPRK-ARQ 600/600	
DPRK	14741.5	7-2-2013	Thu	1025	MFA Pyongyang North Korea. Encrypted messages	DPRK-ARQ 600/600	(EW)
DPRK	16018.5	7-2-2013	Thu	1035	MFA Pyongyang North Korea. Encrypted messages	DPRK-ARQ 600/600	(EW)
DPRK	17238	8-2-2013	Fri	0843	MFA Pyongyang North Korea. All encrypted messages	DPRK-ARQ 600/600	(EW)
DPRK	16248	8-2-2013	Fri	0913	MFA Pyongyang North Korea. All encrypted messages	DPRK-ARQ 600/600	(EW)
E06	4836	7-2-2013	Thu	2030	321 836 15 26857 10285 18362 91037 17265 93716 18375 29472 19372 28374 19200 37284 57263 19377 22202 836 15 00000	AM	(Spec)
E06	15920	8-2-2013	Fri	0600	702 594 103=8	AM	(HFD)
E06	4760	8-2-2013	Fri	2130	472 177 15 72635 19482 37295 17493 27489 36290 17362 37462 94836 18336 74925 18364 92763 19374 19374 177 15 00000	AM	(Spec)
E06	6814	17-2-2013	Sun	1220	218 218 218 00000	AM	(tING)
E06	17470	21-2-2013	Thu	0700	702 594 103=8	AM	(HFD)
E06	4836	21-2-2013	Thu	2030	321 836 15 26857 10285 18362 91037 17265 93716 18375 29472 19372 28374 19200 37284 57263 19377 22202 836 15 00000	AM	(Spec/Q/MA UK/Topol)
E06	4760	22-2-2013	Fri	2130	472 177 15 72635 19482 37295 17493 27489 36290 17362 37462 94836 18336 74925 18364 92763 19374 19374 177 15 00000	AM	(Spec/Q/MP J/Topol)
E06?	5779	28-2-2013	Thu	0322	YL English numbers	USB	(skx)
E07	7697	3-2-2013	Sun	1800	689 0	AM	(HFD)
E07	6863	3-2-2013	Sun	1820	689 0	AM	(HFD)
E07	20258	5-2-2013	Tue	0800	258 258 258 1 255 113 59104.....?????	AM	(Topol)
E07	15858	5-2-2013	Tue	0840	258 258 258 1 255 113 59104.....?????	AM	(Topol)
E07	7724	6-2-2013	Wed	2000	798 798 798 000	AM	(Q-HOL)
E07	6922.5	6-2-2013	Wed	2021	798 798 798 000	AM	(linkz)
E07	5824	6-2-2013	Wed	2040	798 798 798 000	AM	(Q-HOL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
E07	4483	7-2-2013	Thu	2150	744 744 744 000	USB	(MPJ)
E07	7724	11-2-2013	Mon	2000	798 798 798 000	AM	(Topol)
E07	6924	11-2-2013	Mon	2020	798 798 798 000	AM	(Topol)
E07	7724	13-2-2013	Wed	2000	798 798 798 000	AM	(Q/HFD)
E07	6924	13-2-2013	Wed	2020	798 0 weak	AM	(HFD)
E07	6777	14-2-2013	Thu	2110	744 744 744 000	AM	(Q-HOL)
E07	11053	16-2-2013	Sat	0900	015 015 015 000	USB	(Topol/HFD)
E07	7697	17-2-2013	Sun	1800	689 689 689 000	AM	(tING)
E07	6863	17-2-2013	Sun	1820	689 689 689 000	AM	(tING)
E07	6777	21-2-2013	Thu	2110	744 744 744 000	AM	(Q/Topol)
E07	5449	21-2-2013	Thu	2130	744 744 744 000	AM	(Q-HOL)
E07	5449	21-2-2013	Thu	2130	744 744 744 000	AM	(Topol)
E07	7697	24-2-2013	Sun	1800	689 689 689 000	AM	(Q-HOL)
E07	6863	24-2-2013	Sun	1820	689 689 689 000	AM	(Q/Topol)
E07	7724	25-2-2013	Mon	2000	798 1 176 96 48348 81785 01893 66529 24372 ... 90023 28923 56580 29719 80065 000 000	AM	(MPJ/SNL/Topol)
E07	6924	25-2-2013	Mon	2020		AM	(SNL)
E07	6924	25-2-2013	Mon	2020	798 1 176 96 46348.....80065	AM	(Topol)
E07	5824	25-2-2013	Mon	2040		AM	(SNL)
E07	5824	25-2-2013	Mon	2040	798 1 176 96 46348.....80065	AM	(Topol)
E07	7697	27-2-2013	Wed	1800	689 689 689 000	AM	(MPJ/Topol)
E07	6864	27-2-2013	Wed	1820	693 693 693 000	AM	(Topol)
E07	7724	27-2-2013	Wed	2000	798 798 798 1 (R) 176 96 176 96 msg	AM	(Q-HOL)
E07	6924	27-2-2013	Wed	2020	798 798 798 1 (R) 176 96 176 96 msg 000 000	AM	(Q/Topol)
E07	5824	27-2-2013	Wed	2040	798 1 176 96 46348.....80065	AM	(Topol)
E07	5824	27-2-2013	Wed	2040	798 798 798 1 (R) 176 96 176 96 msg 000 000	AM	(Q-HOL)
E07	6777	28-2-2013	Thu	2110	744 744 774 000	AM	(Topol)
E07a	11053	2-2-2013	Sat	0900	015 015 015 000	USB	(Topol)
E07a	12153	2-2-2013	Sat	0920	015 015 015 000	USB	(Topol)
E07a	5864	6-2-2013	Wed	2100	815 815 815 000	USB	(MPJ)
E07a	12153	16-2-2013	Sat	0920	015 0	USB	(HFD)
E07a	5864	20-2-2013	Wed	2100	815 1 62421 326 69 24887 91749 00775 ... 90643 26469 75223 000 000	USB	(AB/Spec/Q)
E07a	5164	20-2-2013	Wed	2120	815 1 62421 326 69 24887 91749 00775 ... 90643 26469 75223 000 000	USB	(AB/Q/Spec)
E07a	4564	20-2-2013	Wed	2140	815 1 62421 326 69 24887 91749 00775 ... 26469 75223 000 000	USB	(Spec/Q)
E07a	4564	20-2-2013	Wed	2150	815 1 62421 326 69 24887 91749 00775 ... 90643 26469 75223 000 000	USB	(AB)
E07a	5146	21-2-2013	Thu	0530	188 1 62421 326 69 24887 91749 00775 ... 26469 75223 000 000	USB	(Spec/Topol)
E07a	5846	21-2-2013	Thu	0550	188 1 62421 326 69 24887 91749 00775 ... 26469 75223 000 000	USB	(Spec/Topol)
E07a	6846	21-2-2013	Thu	0610	188 1 62421 326 69 24887 91749 00775 ... 26469 75223 000 000	USB	(Spec/Topol)
E07a	13553	22-2-2013	Fri	0940	015 015 015 1 65855 2200 51 2200 51 48302 89433 à 56127 36321 000 000	USB	(tING)
E07a	11053	23-2-2013	Sat	0900	015 1 65855 2200 51 48302 89433 69448 ... 56127 36321 000 000	USB	(Spec/Topol)
E07a	12153	23-2-2013	Sat	0920	015 1 65855 2200 51 48302 89433 69448 ... 56127 36321 000 000	USB	(Spec)
E07a	12153	23-2-2013	Sat	0920	015 1 65855 2200 51 48302.....36321	USB	(Topol)
E07a	13553	23-2-2013	Sat	0940	015 1 65855 2200 51 48302.....36321	USB	(Topol)
E07a	13553	23-2-2013	Sat	0940	015 1 65855 2200 51 48302 89433 69448 ... 56127 36321 000 000	USB	(Spec)
E07a	5864	27-2-2013	Wed	2100	815 1 14834 7337 54 85606 84250 02974 ... 15952 64128 000 000	USB	(Spec/Q/Topol)
E07a	5164	27-2-2013	Wed	2120	815 1 14834 7337 54 85606 84250 02974 ... 15952 64128	USB	(Spec/Q/Top

enigma	Freq.	date	day	UTC	remarks	mode	contributor
					000 000		ol)
E07a	4564	27-2-2013	Wed	2140	815 1 14834 7337 54 85606 84250 02974 ... 15952 64128 000 000	USB	(Spec/Q/Topol)
E07a	5146	28-2-2013	Thu	0530	188 1 14834 7337 54 85606 84250 02974 ... 15952 64128 000 000	USB	(Spec)
E07a	5846	28-2-2013	Thu	0550	188 1 14834 7337 54 85606 84250 02974 ... 15952 64128 000 000	USB	(Spec)
E07a	6846	28-2-2013	Thu	0610	188 1 14834 7337 54 85606 84250 02974 ... 15952 64128 000 000	USB	(Spec)
E07a	5449	28-2-2013	Thu	2130	744 744 774 000	AM	(Topol)
E11	15632	3-2-2013	Sun	1540	229/37 39672 67901 98393 47694 03494 ... 02408 32642 70421 29030 31693	USB	(MPJ)
E11	9446	4-2-2013	Mon	0900	534/00	USB	(Topol)
E11	15632	4-2-2013	Mon	1540	220/32 81420 65600 91061 51947 58725 ... 11210 11307 23334 00390 26793	USB	(MPJ)
E11	7840	5-2-2013	Tue	0645	517/00	USB	(Topol)
E11	10800	5-2-2013	Tue	0710	633/00	USB	(Topol)
E11	8091	5-2-2013	Tue	1045	469/00	USB	(Topol)
E11	15632	10-2-2013	Sun	1540	228/00	USB	(Topol)
E11	5082	11-2-2013	Mon	0450	416/00	USB	(Topol)
E11	7317	11-2-2013	Mon	0820	430 37 38597.....61309	USB	(Topol)
E11	7840	12-2-2013	Tue	0645	517/00	USB	(Topol)
E11	10800	12-2-2013	Tue	0710	633/00	USB	(Topol)
E11	16112	12-2-2013	Tue	0745	335/00	USB	(Topol)
E11	8091	12-2-2013	Tue	1045	460 38 07661.....62584	USB	(Topol)
E11	15632	12-2-2013	Tue	1540	228/00	USB	(MPJ)
E11	10800	19-2-2013	Tue	0710	633/00	USB	(Topol)
E11	8091	19-2-2013	Tue	1045	469/00	USB	(Topol)
E11	7840	21-2-2013	Thu	0645	517/00	USB	(Topol)
E11	16112	21-2-2013	Thu	0745	332 38 ?????	USB	(Topol)
E11	7317	21-2-2013	Thu	0820	438/00	USB	(Topol)
E11	5082	21-2-2013	Thu	1730	416/00	USB	(Topol)
E11	10690	22-2-2013	Fri	1404	in progress	USB	(tING)
E11	6923	22-2-2013	Fri	1710	953/21 30434 71706 80796 26268 44344 ... 74513 07140 46513 52312 82863	USB	(MPJ/Spec/tING)
E11	15632	25-2-2013	Mon	1540	228/00	USB	(MPJ)
E11	7840	26-2-2013	Tue	0645	517/00	USB	(Topol)
E11	10800	26-2-2013	Tue	0710	631 35 28964.....16328	USB	(Topol)
E11	16112	26-2-2013	Tue	0745	335/00	USB	(Topol)
E11	8091	26-2-2013	Tue	1045	469/00	USB	(MPJ)
E11	8091	26-2-2013	Tue	1400	469/00	USB	(Topol)
E11	9446	27-2-2013	Wed	0900	538 37 38175.....05312	USB	(Topol)
E11	8091	27-2-2013	Wed	1045	469/00	USB	(Topol)
E11	15632	27-2-2013	Wed	1155	718/00	USB	(Topol)
E11	5082	28-2-2013	Thu	1730	416/00	USB	(MPJ/Topol)
E11a	6923	1-2-2013	Fri	1710	953 30 08022.....56776	USB	(Topol)
E11a	10690	2-2-2013	Sat	1400	01631 35219 92086 49426 82452 04680 28511 39516 91784 13127	USB	(MPJ)
E11a	10213	2-2-2013	Sat	1810	982/10 Attention 93012 16802 73510 15225 75873 84831 04071 67614 15123 20177 Attention (Repeats groups) Out	USB	(Topol/MPJ)
E11a	16112	5-2-2013	Tue	0745	338037 07247.....?????	USB	(Topol)
E11a	10690	5-2-2013	Tue	1400	981/10 Attention 78074 52816 10388 75162 62743 21456 29777 38582 26969 91560 Attention (Repeats groups) Out	USB	(Topol)
E11a	10213	5-2-2013	Tue	1810	982/10 Attention 08744 89571 04409 04239 77881 44315 81395 08535 08717 84787 Attention (Repeats groups) Out	USB	(Topol/MPJ)
E11a	15632	6-2-2013	Wed	1155	819/38 (for 8 minutes!) 68615 52872 92576 58046 10014 ... 85671 49288 56603 72620 86006	USB	(MPJ)
E11a	10690	9-2-2013	Sat	1400	981/10 Attention 86614 32139 80121 79641 22508 53750	USB	(Spec)

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					78439 01408 56166 15765 Out		
E11a	9446	11-2-2013	Mon	0830	649/00	USB	(Topol)
E11a	15632	11-2-2013	Mon	1540	228/00	USB	(Topol)
E11a	8091	12-2-2013	Tue	1045	460/38 Attention 07661 48564 90468 42455 ... 41629 62584 Out	USB	(Spec)
E11a	10690	12-2-2013	Tue	1400	984/10 Attention 80784 27837 06709 60908 75460 88720 60975 34939 39175 33233 Attention (Repeats groups) Out	USB	(Topol)
E11a	10213	12-2-2013	Tue	1810	985/10 Attention 96612 27426 09567 60305 49101 59084 39591 44410 66376 84519 Attention (Repeats groups) Out	USB	(Topol)
E11a	10800	15-2-2013	Fri	0710	633/00	USB	(Topol)
E11a	6923	15-2-2013	Fri	1710	953/25 Attention 39323 51116 90658 80438 ... 45002 37630 Out	USB	(Spec)
E11a	6923	15-2-2013	Fri	1710	953 25 39323.....37630	USB	(Topol)
E11a	10690	16-2-2013	Sat	1400	981/10 Attention 47438 30646 83264 61101 46689 55698 76962 91675 63838 75533 Attention (Repeats groups) Out	USB	(Topol)
E11a	10213	16-2-2013	Sat	1810	988/10 Attention 21922 04519 23727 25858 39237 27109 65893 74875 16784 64339 Out	USB	(Spec)
E11a	7840	19-2-2013	Tue	0645	519 34 86481.....55870	USB	(Topol)
E11a	10690	19-2-2013	Tue	1400	987/10 Attention 79899 31615 39619 56280 38593 48121 61320 07390 54678 05407 Out	USB	(Spec/MPJ/Topol)
E11a	10213	19-2-2013	Tue	1810	988/10 Attention 21922 04519 23727 25858 39237 27109 65893 74875 16784 64339 Attention (Repeats groups) Out	USB	(Topol)
E11a	15632	21-2-2013	Thu	1155	718/31 Attention 69519 23178 20450 ... 02009 95808 18761 Out	USB	(Spec)
E11a	10690	23-2-2013	Sat	1400	981/10 Attention 31355 77758 07922 86911 52895 16544 02915 48820 86487 15262 Attention (Repeats groups) Out	USB	(Topol/Spec)
E11a	10213	23-2-2013	Sat	1810	982/10 Attention 65683 31361 38357 92113 72307 48560 55635 37251 48464 55548 Attention (Repeats groups) Out	USB	(Topol/Spec)
E11a	15632	24-2-2013	Sun	1540	227 30 45197.....?????	USB	(Topol)
E11a	14410	25-2-2013	Mon	1110	952/31 Attention 51790 28192 54893 ... 24148 21216 99064 Out	USB	(Spec)
E11a	10800	26-2-2013	Tue	1045	573/34 15224 86950 87831 26879 04426 ... 30959 35549 67920 27188 42242	USB	(MPJ)
E11a	10690	26-2-2013	Tue	1400	984/10 Attention 27741 69510 81376 16829 45203 ?0517 3888? ????? 16200 63714 Attention (Repeats groups) Out	USB	(Topol)
E11a	10213	26-2-2013	Tue	1810	985/10 Attention 38937 05679 20479 14241 95111 51565 22508 46674 16868 22091 Attention (Repeats groups) Out	USB	(Topol)
E11c	4909	5-2-2013	Tue	2000	757/2200/00	USB	(Q/Spec/Topol)
E11c	6923	7-2-2013	Thu	1925	758/0000/00	USB	(MPJ)
E11c	4909	12-2-2013	Tue	2000	757/0000/00	USB	(Spec/Topol)
E11c	6923	14-2-2013	Thu	1925	758/0000/00	USB	(MPJ)
E11c	6923	19-2-2013	Tue	1927	757/2202/00	USB	(KK2)
E11c	4909	19-2-2013	Tue	2000	757/2202/00	USB	(AB/Topol)
E11c	6923	21-2-2013	Thu	1925	758/2000/00	USB	(Topol)
E11c	4909	26-2-2013	Tue	2000	757/2200/00	USB	(Spec/MPJ/Topol)
E11c	6923	28-2-2013	Thu	1925	758/1000/00	USB	(MPJ/Q/Topol)
E25	9450	4-2-2013	Mon	1137	Music 275 270	AM	(Avare)
E25	9450	4-2-2013	Mon	1217	835 MESSAGE (3x) 1070 5548 5362 0774 6707 5540 7277 REBEAT (3x) EOM EOT	AM	(Avare)
E25	6140	14-2-2013	Thu	0929	YL. 133 133 133 MESSAGE 4153 8248 7351 7772 4775 2864 6162 9034 3095 REBEAT 4153 8248 7351 7772 4775 2864 6162 9034 3095 EOM EOT	AM	(AIK)
E25	6140	18-2-2013	Mon	0830	YL. 701 701 701 MESSAGE 7811 5440 2001 6593 6470 6710 9757 4846 2339 5440 BEAT 7811 5440 2001 6593 6470 6710 9757 4846 2339 5440 END OF MESSAGE	AM	(AIK)
E25	9450	22-2-2013	Fri	1219	Song intro.. 830 6.. 835.. MSG 4021 8510 5346 6695 9356 1534 0031 5940 5872 8296 8510 7375 RBT 4021 8510 5346	AM	(FG)

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					6695 9356 1534 0031 5940 5872 8296 8510 7375 EOM EOT		
E25a	6140	27-1-2013		0926	YL. 353 1 353 1 353 1 353... END OF MESSAGE END OF TRANSMISSION	AM	(AIK)
E25a	6140	15-2-2013	Fri	0925	YL. 135 32 MESSAGE REBEAT END OF MESSAGE END OF TRANSMISSION 135 32 135	AM	(AIK)
E25a	9450	17-2-2013	Sun	1211	ENTA OMRI. YL. 830 5 END OF MESSAGE END OF TRANS-MISSION	AM	(AIK)
EGY	9067.7	12-2-2013	Tue	1933	MFA Cairo. Selcalling OOVF Pyongyang	SITOR-A 100/170	(TR2)
EGY	20123.7	15-2-2013	Fri	1508	Egyptian Diplo. "hjkj kdhjkj kbs ljok ths grksh kd~d kg~ke kddr lus lus ~j~sjkg kddr lfokshr ykkkkks ykkkkkkks" and offair.	SITOR-A 100/170	(MPJ)
EGY	9316.7	25-2-2013	Mon	1539	MFA Cairo EGY"KDS KDKAU LPS 1 LPS 3LUS FOKSR KDDR LKJG"	SITOR-A 100/170 á	(LG2)
EGY	9044.7	25-2-2013	Mon	2241	MFA Cairo EGY. Coded telex ends "RD HJKJSK VKDS HUXD"	SITOR-B 100/170 á	(LG2)
EGY	9076.7	25-2-2013	Mon	2241	Unid Egyptian embassy. Codedtelexends "JG KDFESPSH KDS LKZGCG"	SITOR-B 100/170 á	(LG2)
EGY	9066.7	25-2-2013	Mon	2303	MFA Cairo EGY. Coded telex ends "RD HJKJ TYS HUXD"	SITOR-A 100/170 á	(LG2)
EGY	9044.7	26-2-2013	Tue	0008	MFA Cairo EGY. Selcal to TXIP	SITOR-Aá100/170	(LG2)
EV02?	8051.5	6-1-2013		1653	Homer Simpson loop message	USB	(var)
EV02?	13570.0	7-1-2013		1428	Homer Simpson loop message	USB	(var)
EV02?	12088.5	7-1-2013		1625	Homer Simpson loop message	USB	(var)
EV02?	17461.5	7-1-2013		1632	Homer Simpson loop message	USB	(var)
G06	3673	4-2-2013	Mon	1700	564 564 564 00000	AM	(Topol)
G06	4515	4-2-2013	Mon	1800	564 564 574 00000	AM	(Topol)
G06	5463	11-2-2013	Mon	0800	215 215 215 00000	AM	(Topol)
G06	3673	11-2-2013	Mon	1700	564 564 564 00000	AM	(Topol)
G06	4515	11-2-2013	Mon	1800	564 564 564 00000	AM	(Topol)
G06	4519	28-2-2013	Thu	1830	271 171 15 62819 47284 20417 47240 28193 46194 28501 37297 46208 17302 38103 47122 19483 63719 18333 171 15 00000	AM	(Topol)
G06	4519	28-2-2013	Thu	1830	271 171 15 62819 47284 20471 47270 28193 46194 28501 37297 46208 17302 38103 47122 19483 63719 18333 171 15 00000	AM	(Q-HOL)
G11	4441	1-2-2013	Fri	2000	260 36 41466.....45253	USB	(Topol)
G11	6433	2-2-2013	Sat	1325	299/00	USB	(Topol)
G11	6433	5-2-2013	Tue	1755	270/00	USB	(Topol/MPJ)
G11	6433	9-2-2013	Sat	1325	299/33 Achtung 38409 63173 24895 ... 96594 16712 Out	USB	(Spec)
G11	6433	10-2-2013	Sun	1755	270/00	USB	(Topol)
G11	4441	10-2-2013	Sun	2000	266/32 19410 83678 26074 82040 16220 ... 87611 15246 69294 41483 64880	USB	(MPJ/Topol)
G11	4441	10-2-2013	Sun	2000	266 32 19410.....64880	USB	(Topol)
G11	6433	12-2-2013	Tue	1755	272/32 92152 08090 43600 85175 98275 ... 41455 40502 26880 89042 50984	USB	(MPJ)
G11	4441	15-2-2013	Fri	2000	262/00	USB	(Topol)
G11	6433	17-2-2013	Sun	1755	270/00	USB	(tING)
G11	4441	17-2-2013	Sun	2000	262/00	USB	(Q-HOL)
G11	6433	19-2-2013	Tue	1755	270/00	USB	(Topol)
G11	6433	22-2-2013	Fri	1325	297/31 Achtung 87391 45395 à 96922 39939 Ende	USB	(tING/MPJ)
G11	4441	22-2-2013	Fri	2000	262/00	USB	(MPJ/Topol)
G11	6433	24-2-2013	Sun	1755	279 31 66108.....50064	USB	(Topol)
G11	4441	24-2-2013	Sun	2000	262/00	USB	(Topol)
G11	6433	26-2-2013	Tue	1755	270/00	USB	(Topol)
HM01	11530	1-2-2013	Fri	2300	36411 66434 72266 36762 33334 87404	AM/RDFT	(Dan)
HM01	9065	4-2-2013	Mon	0800	87245 80875 78322 28804 68663 36417	AM/RDFT	(Dan)

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HM01	9065	4-2-2013	Mon	0849	in progress	AM/RDFT	(Topol)
HM01	10715	4-2-2013	Mon	2205	in progress	AM/RDFT	(MFU)
HM01	11530	6-2-2013	Wed	2300	34232 56361 27522 78325 44502 68666	AM/RDFT	(Dan)
HM01	16180	7-2-2013	Thu	2100	34233 file 70384586.TXT 53643 file 81820097.TXT 27253 file 74741802.TXT 78326 file 48057481.TXT 44503 file 15577711.TXT 68667 file 67882876.TXT	AM/RDFT	(MFU)
HM01	16180	7-2-2013	Thu	2100	34233 53642 27523 78326 44503 68667	AM/RDFT	(Dan)
HM01	9065	8-2-2013	Fri	0800	34233 53642 27253 78326 44503 68667) QSA2	AM/RDFT	(Dan)
HM01	17540	13-2-2013	Wed	2300	81552 53647 07861 08255 54301 56234	AM/RDFT	(Dan)
HM01	17540	14-2-2013	Thu	2300	81554 38512 07863 32561 54303 30071	AM/RDFT	(Dan)
HM01	11530	15-2-2013	Fri	2300	YL and RDTF data	AM/RDFT	(E2601)
HM01	17540	16-2-2013	Sat	2300	81556 38514 07865 32563 54305 30073	AM/RDFT	(Dan)
HM01	10715	17-2-2013	Sun	2200	64611 38515 07866 32564 54306 30074	AM/RDFT	(Dan)
HM01	11530	17-2-2013	Sun	2300	64611 38515 07866 32564 54306 30074	AM/RDFT	(Dan)
HM01	17540	19-2-2013	Tue	2300	64614 68762 13812 32567 28322 30077]	AM/RDFT	(Dan)
HM01	16180	21-2-2013	Thu	2101	ip YL Spanish, she said 5 digit number alternating with digital traffic	AM/RDFT	(Q-HOL)
HM01	11635	22-2-2013	Fri	2116	ip YL Spanish, she said 5 digit number alternating with digital traffic	AM/RDFT	(Q-HOL)
HM01	17540	23-2-2013	Sat	2300	64618 68766 13816 78144 28326 56434	AM/RDFT	(Dan)
HM01	17540	23-2-2013	Sat	2300	74403 48263 45611 78147 84463 32802	AM/RDFT	(Dan)
HM01	17538	24-2-2013	Sun	2330	HM01 - Mixed mode RDFT and YL numbers	AM/RDFT	(E2601)
HM01	11635	27-2-2013	Wed	2108	numbers station mixed voice+digital	AM/RDFT	(Q-HOL)
HM01	10715	27-2-2013	Wed	2200	74404 48264 45612 78148 84464 32803	AM/RDFT	(Dan)
HM01	10715	27-2-2013	Wed	2209	numbers station mixed voice+digital	AM/RDFT	(Q-HOL)
HM01	17540	28-2-2013	Thu	2300	74405 48265 45613 03741 84465 32804	AM/RDFT	(Dan)
Jam	7180	10-1-2013		1623	Ethiopian Gov. White noise jammer jamming the Voice of the Broad Masses of Eritrea		(IARUMS)
Jam	7185	15-1-2013		0655	Ethiopian Gov. White noise jammer jamming the Voice of the Broad Masses of Eritrea		(IARUMS)
Jam	7170	15-1-2013		1536	Ethiopian Gov. White noise jammer jamming the Voice of the Broad Masses of Eritrea		(IARUMS)
Jam	7175	17-1-2013		1433	Ethiopian Gov. White noise jammer jamming the Voice of the Broad Masses of Eritrea		(IARUMS)
Jam	7190	29-1-2013		1657	Ethiopian Gov. White noise jammer jamming the Voice of the Broad Masses of Eritrea		(IARUMS)
M01	5810	2-2-2013	Sat	1500	ip, 5FSG, "197(R)...", once again its signal is twice [TX problem?, spurious'?]	CW	(Q-HOL)
M01	5810	2-2-2013	Sat	1500	Jamming until 15:02 197 788 30 = = 10631 46415 24189 63361 45716 ... 44403 93394 21371 76373 57647 = = 788 30 000	CW	(MPJ)
M01	5321	5-2-2013	Tue	1800	197 1 868 30 85161 63614 92155 07313 38032 ... 17163 47280 71750 12830 86830 000	CW	(MPJ)
M01	4490	5-2-2013	Tue	2006	ip, 5FSG, "...34913 34913 = = 421 421 30 30 0 0 0", many errors, once again its signal is twice	CW	(Q-HOL)
M01	5320	7-2-2013	Thu	1800	197 741 30 // 32331 62499 29228 29322 87379 ... 87956 69048 84003 94472 88452 // 741 30 000	CW	(MPJ)
M01	4490	26-2-2013	Tue	2003	In progress ... 92599 69679 80306 17153 ... 75836 25091 95360 97530 80682 = = 124 124 30 30 0 0 0 0	CW	(MPJ)
M01	5320	28-2-2013	Thu	1800	197197197197... 2933 93 9330 = = 16460 16460 101730 85858525 679.. (A complete mess, no callup, errors, breaks in transmission, miskeying ... I gave up on it ...)	CW	(MPJ)
M01	4490	28-2-2013	Thu	2000	981 981 30 30 // 01504 50878 00749 81544 95523 ... 63564 49770 31446 37891 82062 // 981 981 30 30 000	CW	(MPJ)
M01?	3391	5-2-2013	Tue	1932	111 111	CW	(TR2)
M01a	5809	26-2-2013	Tue	2132	(ip) 358t4 136t2 (4 or =) 111 ttt	CW	(FMB)
M01b	4490	14-2-2013	Thu	2000	197 598 30 = = 31440 03976 66639 54885 63757 ... 14122 65144 84719 ... (they made a mess of the last part of the message) = = 598 598 30 30 000 //4491	CW	(MPJ)

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M01b	5810	22-2-2013	Fri	1500	197 381 381 30 30 = = 80996 96645 à 71773 73031 = = 381 381 30 30 000	CW	(tING)
M03	5358	2-2-2013	Sat	1535	792/31 = = 26727 78473 05582 82816 40857 ... 16521 84719 49281 46313 13004 = = 000	CW	(MPJ)
M03	4828	3-2-2013	Sun	1320	473/00	CW	(MPJ)
M03	5358	12-2-2013	Tue	1535	792/34 = = 90693 74398 37101 62723 51648 ... 20902 02335 24584 02765 83244 = =	CW	(MPJ)
M03	5358	19-2-2013	Tue	1535	798/00	CW	(MPJ)
M03	5358	22-2-2013	Fri	1535	792/33	CW	(tING)
M08a	8009	27-2-2013	Wed	2317	ip, it sent groups of 5 letters	CW	(Q-HOL)
M12	10343	1-2-2013	Fri	1800	81918 61640 01548 36271 15326 ... 29956 75086 70397 30048 28236 000	CW	(MPJ)
M12	4617	4-2-2013	Mon	0530	638 000	CW	(FN)
M12	5317	4-2-2013	Mon	0550	638 000	CW	(FN)
M12	9223	4-2-2013	Mon	1300	214 01	CW	(HFD)
M12	9223	4-2-2013	Mon	1300	214 1 908 167 15354	CW	(FN)
M12	8193	4-2-2013	Mon	1320	214 1 908 167 15354	CW	(FN)
M12	8193	4-2-2013	Mon	1320	214 0	CW	(HFD)
M12	7463	4-2-2013	Mon	1340	214 1 908 167 15354	CW	(FN)
M12	7463	4-2-2013	Mon	1340	214 0	CW	(HFD)
M12	12162	4-2-2013	Mon	1600	546 1 5993 88 22247	CW	(FN)
M12	11566	4-2-2013	Mon	1620	546 1 5993 88 22247	CW	(FN)
M12	10711	4-2-2013	Mon	1640	546 1 5993 88 22247	CW	(FN)
M12	9176	4-2-2013	Mon	1700	257 1 6289 79 19168	CW	(FN)
M12	7931	4-2-2013	Mon	1720	257 1 6289 79 19168	CW	(FN)
M12	6904	4-2-2013	Mon	1740	257 1 6289 79 19168	CW	(FN)
M12	9176	4-2-2013	Mon	1800	257 1 9406 47 29048	CW	(FN)
M12	7931	4-2-2013	Mon	1820	257 1 9406 47 29048	CW	(FN)
M12	6904	4-2-2013	Mon	1840	257 1 9406 47 29048	CW	(FN)
M12	9176	4-2-2013	Mon	1900	257 1 2259 78 60059 17981 76990 99662 70933 ... 31956 12008 47132 08792 74486 000	CW	(MPJ/FN)
M12	7931	4-2-2013	Mon	1920	257 1 2259 78 80059	CW	(FN)
M12	6904	4-2-2013	Mon	1940	257 1 2259 78 80059	CW	(FN)
M12	6904	4-2-2013	Mon	1947	ip O2008 4727854 74486 000 000	CW á	(LG2)
M12	10343	5-2-2013	Tue	1830	124 1 5219 61 42586	CW	(FN)
M12	9264	5-2-2013	Tue	1850	124 1 5219 6. 42586 83033 78678 72984 88188 ... 70014 14667 83305 81500 27079 000	CW	(MPJ/FN)
M12	8116	5-2-2013	Tue	1910	124 1 5219 61 42586	CW	(FN)
M12	7697	6-2-2013	Wed	1500	214 1 908 167 15354 15767 79337 82376 66350 ... 57641 33854 55877 22061 77317 000	CW	(MPJ/FN)
M12	6797	6-2-2013	Wed	1520	214 1 908 167 15354	CW	(FN)
M12	5397	6-2-2013	Wed	1540	214 1 908 167 15354	CW	(FN)
M12	8047	6-2-2013	Wed	1700	463 1 2052 59 87013	CW	(FN)
M12	6802	6-2-2013	Wed	1720	463 1 2052 59 87013	CW	(FN)
M12	5788	6-2-2013	Wed	1740	463 1 2052 59 87013	CW	(FN)
M12	11435	6-2-2013	Wed	1830	938 1 1179 53 04862	CW	(FN)
M12	10598	6-2-2013	Wed	1850	938 1 1179 53 04862	CW	(FN)
M12	9327	6-2-2013	Wed	1910	938 1 1179 53 04862	CW	(FN)
M12	5429	6-2-2013	Wed	2200	460 000	CW	(FN)
M12	4629	6-2-2013	Wed	2220	460 000	CW	(FN)
M12	5884	7-2-2013	Thu	0730	888 000	CW	(FN)
M12	6884	7-2-2013	Thu	0750	888 000	CW	(FN)
M12	13569	7-2-2013	Thu	1010	582 1 496 61 91793	CW	(FN)
M12	14869	7-2-2013	Thu	1030	582 1 496 61 91793	CW	(FN)
M12	16269	7-2-2013	Thu	1050	582 1 496 61 91793	CW	(FN)
M12	10343	7-2-2013	Thu	1700	124 1 4051 70 27258	CW	(FN)
M12	9176	7-2-2013	Thu	1700	257 1 9197 85 85676	CW	(FN)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M12	9264	7-2-2013	Thu	1720	124 1 4051 70 27258	CW	(FN)
M12	7931	7-2-2013	Thu	1720	257 1 9197 85 85676	CW	(FN)
M12	6904	7-2-2013	Thu	1740	257 1 9197 85 ... 59432 61256 82922 72095 10_97 ... 38__4 31431 06712 27656 4687_ 000	CW	(MPJ/FN)
M12	8116	7-2-2013	Thu	1740	124 1 4051 70 27258	CW	(FN)
M12	10343	7-2-2013	Thu	1800	124 1 4105 79 03491 01678 18384 13248 76914 ... 52850 01591 81621 62856 61395 000	CW	(MPJ/FN)
M12	9264	7-2-2013	Thu	1820	124 1 4105 79 03491	CW	(FN)
M12	8116	7-2-2013	Thu	1840	124 1 4105 79 03491	CW	(FN)
M12	9176	7-2-2013	Thu	1900	257 1 2573 68 74208	CW	(FN)
M12	7931	7-2-2013	Thu	1920	257 1 2573 68 74208	CW	(FN)
M12	6904	7-2-2013	Thu	1940	257 1 2573 68 74208	CW	(FN)
M12	10343	8-2-2013	Fri	1800	124 1 9183 94 86561	CW	(FN)
M12	9264	8-2-2013	Fri	1820	124 1 9183 94 86561	CW	(FN)
M12	8116	8-2-2013	Fri	1840	124 1 9183 94 86561	CW	(FN)
M12	7637	9-2-2013	Sat	0600	612 000	CW	(FN)
M12	9137	9-2-2013	Sat	0620	612 000	CW	(FN)
M12	13569	10-2-2013	Sun	1010	582 1 496 61 91793	CW	(FN)
M12	14869	10-2-2013	Sun	1030	582 1 496 61 91793	CW	(FN)
M12	16269	10-2-2013	Sun	1050	582 1 496 61 91793	CW	(FN)
M12	12217	10-2-2013	Sun	1830	263 1 214 153 17422	CW	(FN/HFD)
M12	10617	10-2-2013	Sun	1850	263 1 214 153 17422	CW	(FN/HFD)
M12	9317	10-2-2013	Sun	1910	263 1 214 153 17422	CW	(FN/HFD)
M12	4617	11-2-2013	Mon	0530	638 0	CW	(HFD)
M12	5317	11-2-2013	Mon	0550	638 0	CW	(HFD)
M12	9223	11-2-2013	Mon	1300	214 1 713 141 24346	CW	(FN)
M12	8193	11-2-2013	Mon	1320	214 1 713 141 24346	CW	(FN)
M12	7463	11-2-2013	Mon	1340	214 1 713 141 24346	CW	(FN)
M12	12162	11-2-2013	Mon	1600	546 1 7639 77 55770	CW	(FN)
M12	11566	11-2-2013	Mon	1620	546 1 7639 77 55770	CW	(FN)
M12	10711	11-2-2013	Mon	1640	546 1 7639 77 55770	CW	(FN)
M12	9176	11-2-2013	Mon	1700	257 1 1521 71 55569	CW	(FN)
M12	7931	11-2-2013	Mon	1720	257 1 1521 71 55569	CW	(FN)
M12	6904	11-2-2013	Mon	1740	257 1 1521 71 55569	CW	(FN)
M12	9176	11-2-2013	Mon	1800	257 1 1910 59 36693	CW	(FN/HFD)
M12	7931	11-2-2013	Mon	1820	257 1 1910 59 36693	CW	(FN)
M12	7931	11-2-2013	Mon	1820	257 1	CW	(HFD)
M12	6904	11-2-2013	Mon	1840	257 1 1910 59 36693	CW	(FN/HFD)
M12	9176	11-2-2013	Mon	1900	257 1 4136 63 87770	CW	(FN)
M12	7931	11-2-2013	Mon	1920	257 1 4136 63 87770	CW	(FN)
M12	6904	11-2-2013	Mon	1940	257 1 4136 63 87770	CW	(FN)
M12	10343	12-2-2013	Tue	1830	124 1 9946 56 40209	CW	(FN)
M12	9264	12-2-2013	Tue	1850	124 1 9946 56 40209 98686 50089 93521 03860 ... 90963 85135 62309 83805 _58755 000	CW	(MPJ/FN)
M12	8116	12-2-2013	Tue	1910	124 1 9946 56 40209	CW	(FN)
M12	7697	13-2-2013	Wed	1500	214 1 713 141 24346	CW	(FN/HFD)
M12	6797	13-2-2013	Wed	1520	214 1	CW	(HFD)
M12	6797	13-2-2013	Wed	1520	214 1 713 141 24346	CW	(FN)
M12	5397	13-2-2013	Wed	1540	214 1	CW	(HFD)
M12	5397	13-2-2013	Wed	1540	214 1 713 141 24346	CW	(FN)
M12	8047	13-2-2013	Wed	1700	463 1 1222 57 78172	CW	(FN)
M12	6802	13-2-2013	Wed	1720	463 1 1222 57 78172	CW	(FN)
M12	5788	13-2-2013	Wed	1740	463 1 1222 57 78172	CW	(FN)
M12	11435	13-2-2013	Wed	1830	938 1 7461 53 81895	CW	(FN)
M12	12217	13-2-2013	Wed	1830	263 1 631 137 23062	CW	(FN)
M12	10598	13-2-2013	Wed	1850	938 1 7461 53 81895	CW	(FN)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M12	10617	13-2-2013	Wed	1850	263 1 631 137 23062	CW	(FN)
M12	9327	13-2-2013	Wed	1910	938 1 7461 53 81895	CW	(FN)
M12	9317	13-2-2013	Wed	1910	263 1 631 137 23062	CW	(FN)
M12	5429	13-2-2013	Wed	2200	460 000	CW	(FN)
M12	4629	13-2-2013	Wed	2220	460 000	CW	(FN)
M12	5884	14-2-2013	Thu	0730	888 0	CW	(HFD)
M12	6884	14-2-2013	Thu	0750	888 0	CW	(HFD)
M12	13569	14-2-2013	Thu	1010	582 000	CW	(FN)
M12	14869	14-2-2013	Thu	1030	582 000	CW	(FN)
M12	10343	14-2-2013	Thu	1700	124 1 5945 79 13595	CW	(FN)
M12	9176	14-2-2013	Thu	1700	257 1 4619 76 28853	CW	(FN)
M12	7931	14-2-2013	Thu	1720	257 1 4619 76 28853	CW	(FN)
M12	9264	14-2-2013	Thu	1720	124 1 5945 79 13595	CW	(FN)
M12	8116	14-2-2013	Thu	1740	124 1 5945 79 13595	CW	(FN)
M12	6904	14-2-2013	Thu	1740	257 1 4619 76 28853	CW	(FN)
M12	10343	14-2-2013	Thu	1800	124 1 8985 91 19718	CW	(FN)
M12	9264	14-2-2013	Thu	1820	124 1 8985 91 19718	CW	(FN)
M12	8116	14-2-2013	Thu	1840	124 1 8985 91 19718	CW	(FN)
M12	9176	14-2-2013	Thu	1900	257 1 8181 59 77098	CW	(FN)
M12	7931	14-2-2013	Thu	1920	257 1 8181 59 77098	CW	(FN)
M12	6904	14-2-2013	Thu	1940	257 1 8181 59 77098	CW	(FN)
M12	10343	15-2-2013	Fri	1800	124 1 5788 75 33190 99081 72817 51301 63034 ... 69498 67149 38390 25202 68475 000	CW	(MPJ/FN/Q)
M12	9264	15-2-2013	Fri	1820	124 1 5788 75 33190	CW	(FN/Q)
M12	8116	15-2-2013	Fri	1840	124 1 5788 75 33190	CW	(FN)
M12	7637	16-2-2013	Sat	0600	612 000	CW	(FN)
M12	9137	16-2-2013	Sat	0620	612 000	CW	(FN)
M12	13569	17-2-2013	Sun	1010	582 000	CW	(FN)
M12	14869	17-2-2013	Sun	1030	582 000	CW	(FN)
M12	12217	17-2-2013	Sun	1830	263 1 631 137 23062	CW	(FN)
M12	10617	17-2-2013	Sun	1850	263 1 631 137 23062	CW	(FN)
M12	9317	17-2-2013	Sun	1910	263 1 631 137 23062	CW	(FN)
M12	4617	18-2-2013	Mon	0530	638 000	CW	(FN)
M12	5317	18-2-2013	Mon	0550	638 000	CW	(FN)
M12	9223	18-2-2013	Mon	1300	214 1 8336 155 22160	CW	(FN)
M12	8193	18-2-2013	Mon	1320	214 1 8336 155 22160	CW	(FN)
M12	7463	18-2-2013	Mon	1340	214 1 8336 155 22160	CW	(FN)
M12	12162	18-2-2013	Mon	1600	546 14977 86 27998	CW	(FN)
M12	11566	18-2-2013	Mon	1620	546 14977 86 27998	CW	(FN)
M12	10711	18-2-2013	Mon	1640	546 14977 86 27998	CW	(FN)
M12	9176	18-2-2013	Mon	1700	257 1 6697 76 08116	CW	(FN)
M12	7931	18-2-2013	Mon	1720	257 1 6697 76 08116	CW	(FN)
M12	6904	18-2-2013	Mon	1740	257 1 6697 76 08116	CW	(FN)
M12	9176	18-2-2013	Mon	1800	257 1 7095 43 31313	CW	(FN)
M12	7931	18-2-2013	Mon	1820	257 1 7095 43 31313	CW	(FN)
M12	6904	18-2-2013	Mon	1840	257 1 7095 43 31313	CW	(FN)
M12	9176	18-2-2013	Mon	1900	257 1 4704 61 73634	CW	(FN)
M12	7931	18-2-2013	Mon	1920	257 1 4704 61 73634	CW	(FN)
M12	6904	18-2-2013	Mon	1940	257 1 4704 61 73634	CW	(FN)
M12	10343	19-2-2013	Tue	1830	124 1 9238 63 10982	CW	(FN)
M12	9264	19-2-2013	Tue	1850	124 1 9238 63 10982	CW	(FN)
M12	8116	19-2-2013	Tue	1910	124 1 9238 63 10982	CW	(FN)
M12	7697	20-2-2013	Wed	1500	214 1 8336 155 22160	CW	(FN)
M12	6797	20-2-2013	Wed	1520	214 1 8336 155 22160	CW	(FN)
M12	5397	20-2-2013	Wed	1540	214 1 8336 155 22160	CW	(FN)
M12	8047	20-2-2013	Wed	1700	463 1 1446 62 81147	CW	(FN)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M12	6802	20-2-2013	Wed	1720	463 1 1446 62 81147	CW	(FN)
M12	5788	20-2-2013	Wed	1740	463 1 1446 62 81147	CW	(FN)
M12	12217	20-2-2013	Wed	1830	263 1 5770 189 42230	CW	(FN)
M12	11435	20-2-2013	Wed	1830	938 1 6582 50 72848	CW	(FN)
M12	10598	20-2-2013	Wed	1850	938 1 6582 50 72848	CW	(FN)
M12	10617	20-2-2013	Wed	1850	263 1 5770 189 42230	CW	(FN)
M12	9327	20-2-2013	Wed	1910	938 1 6582 50 72848	CW	(FN)
M12	9317	20-2-2013	Wed	1910	263 1 5770 189 42230	CW	(FN)
M12	5884	21-2-2013	Thu	0730	888 000	CW	(FN)
M12	6884	21-2-2013	Thu	0750	888 000	CW	(FN)
M12	13569	21-2-2013	Thu	1010	582 1 6180 93 63012	CW	(FN)
M12	14869	21-2-2013	Thu	1030	582 1 6180 93 63012	CW	(FN)
M12	16269	21-2-2013	Thu	1050	582 1 6180 93 63012	CW	(FN)
M12	9176	21-2-2013	Thu	1700	257 1 9761 74 30723	CW	(FN)
M12	10343	21-2-2013	Thu	1700	124 1 6005 77 62502	CW	(FN)
M12	9264	21-2-2013	Thu	1720	124 1 6005 77 62502	CW	(FN)
M12	7931	21-2-2013	Thu	1720	257 1 9761 74 30723	CW	(FN)
M12	6904	21-2-2013	Thu	1740	257 1 9761 74 30723	CW	(FN)
M12	8116	21-2-2013	Thu	1740	124 1 6005 77 62502	CW	(FN)
M12	10343	21-2-2013	Thu	1800	124 1 1156 50 06238	CW	(FN)
M12	9264	21-2-2013	Thu	1820	124 1 1156 50 06238	CW	(FN)
M12	8116	21-2-2013	Thu	1840	124 1 1156 50 06238	CW	(FN)
M12	9176	21-2-2013	Thu	1900	257 1 8743 53 97789	CW	(FN)
M12	7931	21-2-2013	Thu	1920	257 1 8743 53 97789	CW	(FN)
M12	6904	21-2-2013	Thu	1940	257 1 8743 53 97789	CW	(FN)
M12	10343	22-2-2013	Fri	1800	124 1 6784 78 68758 66174 45931 03027 34727 ... 34686 63356 02255 27290 35202 000 000	CW	(MPJ/FN)
M12	9264	22-2-2013	Fri	1820	124 1 6784 78 68758	CW	(FN)
M12	8116	22-2-2013	Fri	1840	124 1 6784 78 68758	CW	(FN)
M12	13569	24-2-2013	Sun	1010	582 1 6180 93 63012	CW	(FN)
M12	14869	24-2-2013	Sun	1030	582 1 6180 93 63012	CW	(FN)
M12	16269	24-2-2013	Sun	1050	582 1 6180 93 63012	CW	(FN)
M12	12217	24-2-2013	Sun	1830	263 1 5770 189 42230	CW	(FN)
M12	10617	24-2-2013	Sun	1850	263 1 5770 189 42230	CW	(FN)
M12	9317	24-2-2013	Sun	1910	263 1 5770 189 42230	CW	(FN)
M12	4617	25-2-2013	Mon	0530	638 000	CW	(FN)
M12	5317	25-2-2013	Mon	0550	638 000	CW	(FN)
M12	9223	25-2-2013	Mon	1300	214 1 8561 143 19310 34259 76672 10316 97445 ... 48538 23779 25195 90416 37540 000 000	CW	(MPJ/FN)
M12	8193	25-2-2013	Mon	1320	214 1 8561 143 19310	CW	(FN)
M12	7463	25-2-2013	Mon	1340		CW	(SNL)
M12	7463	25-2-2013	Mon	1340	214 1 8561 143 19310	CW	(FN)
M12	12162	25-2-2013	Mon	1600	546 1 8038 89 45342	CW	(FN)
M12	11566	25-2-2013	Mon	1620	546 1 8038 89 45342	CW	(FN)
M12	10711	25-2-2013	Mon	1640	546 1 8038 89 45342	CW	(FN)
M12	9176	25-2-2013	Mon	1700	257 1 1496 80 54382	CW	(FN)
M12	7931	25-2-2013	Mon	1720	257 1 1496 80 54382	CW	(FN)
M12	6904	25-2-2013	Mon	1740	257 1 1496 80 54382	CW	(FN)
M12	9176	25-2-2013	Mon	1800	257 1 2988 65 46703	CW	(FN)
M12	7931	25-2-2013	Mon	1820	257 1 2988 65 46703	CW	(FN)
M12	6904	25-2-2013	Mon	1840	257 1 2988 65 46703	CW	(FN/SNL)
M12	9176	25-2-2013	Mon	1900	257 1 5614 53 57605	CW	(FN/SNL/Q)
M12	7931	25-2-2013	Mon	1920	257 1 5614 53 57605	CW	(FN/SNL)
M12	6904	25-2-2013	Mon	1940	257 1 5614 53 57605	CW	(FN/SNL)
M12	7697	27-2-2013	Wed	1500	8561 143 19310 34259 76672 10316 97445 ... 48538 23779 25195 90416 37540 000 000	CW	(MPJ)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M12	10598	27-2-2013	Wed	1850	938 1 6464 52 98846 00589 59652 86781 42418... 13611 21387 43033 61012 77594 000	CW	(MPJ)
M12	5429	27-2-2013	Wed	2200	460 460 460 000 (R)	CW	(Q-HOL)
M12	5884	28-2-2013	Thu	0730	888 000	CW	(FN)
M12	6884	28-2-2013	Thu	0750	888 000	CW	(FN)
M12	13569	28-2-2013	Thu	1010	582 000	CW	(FN)
M12	14869	28-2-2013	Thu	1030	582 000	CW	(FN)
M12	9176	28-2-2013	Thu	1700	257 1 6656 68 07918 34970 08868 00184 06024 ... 86630 38080 26702 72924 86581 000 000	CW	(MPJ/FN)
M12	10343	28-2-2013	Thu	1700	124 1 8048 80 39540	CW	(FN)
M12	9264	28-2-2013	Thu	1720	124 1 8048 80 39540	CW	(FN)
M12	7931	28-2-2013	Thu	1720	257 1 6656 68 06918	CW	(FN)
M12	8116	28-2-2013	Thu	1740	124 1 8048 80 39540	CW	(FN)
M12	6904	28-2-2013	Thu	1740	257 1 6656 68 06918	CW	(FN)
M12	10343	28-2-2013	Thu	1800	124 1 1537 72 83443	CW	(FN)
M12	9264	28-2-2013	Thu	1820	124 1 1537 72 83443	CW	(FN)
M12	8116	28-2-2013	Thu	1840	124 1 1537 72 83443	CW	(FN)
M12	9176	28-2-2013	Thu	1900	257 1 5041 46 93879	CW	(FN)
M12	7931	28-2-2013	Thu	1920	257 1 5041 46 93879	CW	(FN)
M12	6904	28-2-2013	Thu	1940	257 1 5041 46 93879	CW	(FN)
M14	4496	25-2-2013	Mon	1830	910 357 = 142 = = 25441	CW	(Topol)
M18	3803	2-2-2013	Sat	2030	1143 1143 1144 1144 1144 etc. Odd times	CW	(AB)
M18	3803	11-2-2013	Mon	2203	0305 0305 0305 0306 0306 etc.	CW	(AB)
M18	3803	12-2-2013	Tue	2044	0147 0147 0148 0148 0148 etc.	CW	(AB)
M18	3803	15-2-2013	Fri	1929	0231 0231 0231 ...	CW	(FN)
M18	3803	16-2-2013	Sat	2153	1312 1312 1313 etc.	CW	(AB)
M18	3803	19-2-2013	Tue	2029	0023 0023 0023 0024 0024 etc.	CW	(AB)
M18	3803	24-2-2013	Sun	2012	0012 0012 0013 0013 0013 etc.	CW	(AB)
M21	3322	29-1-2013		2245	Russian Air Defence. Id 0	CW ááá	(LG2)
M21	4962	5-2-2013	Tue	2112	Russian Air Defence	CW áá	(LG2)
M21	4951.5	6-2-2013	Wed	0242	PVO =990642??0?????	CW	(TR2)
M21	5752	10-2-2013	Sun	1721	PVO =992121??8????	CW	(Alan)
M21	4951.5	11-2-2013	Mon	1904	Russian Air Defence =992303??0?????	CW	(TR2)
M21	3322	11-2-2013	Mon	1948	Russian Air Defence =992347??0?????	CW	(TR2)
M21	6823.5	14-2-2013	Thu	0917	PVO =99?1319?9????? =99?1321?9?????	CW	(WP3)
M21	4951.5	19-2-2013	Tue	2003	PVO. =990003??0?????	CW	(TR2)
M21	5752	25-2-2013	Mon	1829	ip	CW	(FMB)
M21	2738	25-2-2013	Mon	1905	9935624238t4 ...	CW	(FMB)
M22	4331	1-2-2013	Fri	2329	4XZIDF/Israeli Navy Haifa"NR 42 = = NR 42 CP E T W G2S 03 W21T2 L ENRU GR 5 J =="	CW	(LG2)
M22	6378	1-2-2013	Fri	2351	4XZIDF/Israeli Navy Haifa"= = VVV DE4XZ 4XZ = ="	CW	(LG2)
M22	4592	4-2-2013	Mon	2036	4XZIDF/Israeli Navy Haifa	CW	(LG2)
M22	2860	9-2-2013	Sat	2125	4XZ: IDF/Israeli Navy Haifa. VVV VVV DE 4XZ 4XZ into en-crypted traffic	CW	(LG2)
M22	4595	11-2-2013	Mon	1838	4XZ: Navy Haifa VVV DE 4XZ 4XZ // or 5L message	CW	(TR2)
M22	2860	18-2-2013	Mon	1950	4XZ. Isr. Navy Haifa 5 fgs end QSL NR 07 TV = AR AR VVV DE 4XZ	CW	(BvR)
M22	6607	24-2-2013	Sun	1846	4XZ HAIFA "...= = vvv de 4xz 4xz = =...msg"	CW	(Q-HOL)
M22	2919	24-2-2013	Sun	2154	4XZ. IDF/Israeli Navy Haifa"VVV VVV DE 4XZ"	CW	(LG2)
M22	6379	27-2-2013	Wed	2103	4XZ. IDF/Israeli Navy Haifa "UJ4F SR 846 TNR 956 QQL"	CW	(LG2)
M32	7969	29-1-2013		0801	CIS Mil. CW 1A wkg WL5C	CW	(BCI)
M32	8789	31-1-2013		0013	CIS Mil. GNXG wkg WITI	CW	(BCI)
M32	11468	1-2-2013	Fri	1016	XXX XXX RDL RDL 14488 AMFIBIAe 01 1320 285 135 1406	CW	(JU)
M32	3312	1-2-2013	Fri	2210	WQ2L: CIS Mil	CW	(BCI)
M32	10452	3-2-2013	Sun	1539	Russian navy Murmansk T600/50/200 crypto traffic after xxx xxx rdl rdl in F1A/200	CW	(PPA)
M32	3353	3-2-2013	Sun	2314	PSAE: Russian Mil wkg GIE7,E3BO,KRG6,KHO6	CW	(LG2)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M32	5240.5	4-2-2013	Mon	0638	Russian Mil. 7DFM clg 7WCK	CW	(BCl)
M32	7922	5-2-2013	Tue	0652	CIS Mil. KM1R DE WKDC QBE QYT5 K. KM1R DE WKDC QBE QYT9 K. KM1R DE LLHD QYT9 K	CW	(TR2)
M32	7789	5-2-2013	Tue	0658	CIS Mil. 4SSE DE MKM2. BDAI DE MKM2. 8CE6 DE MKM2	CW	(TR2)
M32	10042	5-2-2013	Tue	0817	XXX XXX REA4 REA4 28834 KOWAR 9810 8420	CW	(JU)
M32	10042	5-2-2013	Tue	0819	XXX XXX REA4 REA4 97157 KONCERTANT 5547 6718	CW	(JU)
M32	10042	5-2-2013	Tue	0821	XXX XXX REA4 REA4 15561 ChORTGORN 4686 8609	CW	(JU)
M32	10042	5-2-2013	Tue	0823	XXX XXX REA4 REA4 63484 BULAWKA 3188 4214	CW	(JU)
M32	10042	5-2-2013	Tue	0842	XXX XXX REA4 REA4 79771 PODOJ 8600 3804	CW	(JU)
M32	3161	5-2-2013	Tue	1705	XXX XXX W6BY W6BY 48312 GALEAS 8584 3362	CW	(JU)
M32	6342	5-2-2013	Tue	1710	XXX XXX W6BY W6BY 53010 48312 GALEAS 8584 3362	CW	(JU)
M32	3859	5-2-2013	Tue	2237	Russian Mil. i.p. "9W585 419TT 9575K"	CW ááá	(LG2)
M32	5596	7-2-2013	Thu	0205	Russian Mil. 7LSG DE XCSN. DTAP DE XCSN QSA2 QSA (0207). Y5SH DE XCSN Y5SH(DE XCSN) QSA1 QSA (0210). 7LSG DE XCSN (0212)	CW	(TR2)
M32	5953	7-2-2013	Thu	0651	Russian Mil. XXX XXX AHWL AHWL DE 9B6S 99991 99991 99991 99999 = T9AT TT9T K	CW	(BCl)
M32	6988	7-2-2013	Thu	0710	Russian Mil. R1TX clg NMOI	CW	(BCl)
M32	3178	7-2-2013	Thu	1904	RGT77 RGT77 707 = ARBDCh ÄAAEF ZBLGG NZUGG XÜSÜS TRILD DRLSP HDLSY ÄFHKO VXBZR NOQXT PUPCC = + //3161 kHz	CW	(TR2)
M32	3161	7-2-2013	Thu	1904	Russian Mil. RGT77 RGT77 707 = ARBDCh ÄAAEF ZBLGG NZUGG XÜSÜS TRILD DRLSP HDLSY ÄFHKO VXBZR NOQXT PUPCC = + //3178 kHz	CW	(TR2)
M32	10422	8-2-2013	Fri	0817	XXX XXX MSK7 MSK7 12554 TOMLENIE 0386 6272	CW	(JU)
M32	10422	8-2-2013	Fri	0821	XXX XXX MSK7 MSK7 90829 PROBEL 4281 1138	CW	(JU)
M32	10422	8-2-2013	Fri	0842	XXX XXX MSK7 MSK7 66364 TOLSTOMEC 2685 7870 KOR-REKTURA 3617 5309	CW	(JU)
M32	6610	13-2-2013	Wed	1828	X45G: CIS Mil. Radio check with IWVV and F76Y	CW	(TR2)
M32	3310	13-2-2013	Wed	2226	Russian Mil. MDIL DE ZKL5 ZKL5 QTC	CW	(LG2)
M32	6758	14-2-2013	Thu	0728	in progress 82050 82050 qyd ? k r as k - qta? k	CW	(WP3)
M32	6824	14-2-2013	Thu	0919	8S1Q: Russian Mil. xxx xxx 8s1q 8s1q 91844 preuprõmyj 0705 4066 k 0953z xxx xxx 8s1q 8s1q 57504 rassypnoj 5753 6019 k 2013-02-14 (wp3)	CW	(WP3)
M32	4483	15-2-2013	Fri	2005	CIS Mil. V2AH DE J1WZ K. NW J1WZ ZQO ZRS ZCD QSW3	CW	(TR2)
M32	4122	15-2-2013	Fri	2031	Russian Mil. Enciphered Morse in progress ... V ZML MNUVLDDNE−cHU ...	CW	(MPJ)
M32	4483	16-2-2013	Sat	2002	Russian Mil. J1WZ K. PPD2 DE J1WZ. J1WZ ZVI ZQI ZUV ZQW ZQE ZJQ QSW3 OK AS. M030 DE BCK9	CW	(TR2)
M32	5596	16-2-2013	Sat	2030	T5O3: Russian Military NCS. Ends message ... RPT QLN K. RPT K. R K. R K. R K. At 2058 UTC: T5O3 QTC AR. T5O3 176 28 17 0050 176 = 173 = ngapy wganp iowyi ... yowma yswar sywap sywpa swrpy õupwt rpt qln k. (Repeats and gets QSLs) ...	CW	(MPJ)
M32	7366	19-2-2013	Tue	0730	Russian Mil. MHLA DE 8NAG ZGK ZCI ZQN ZOL ZKJ ZKQ ZYT6. MHLA DE 8NAG OK ZYT6 NO QYT4	CW	(TR2)
M32	7366	19-2-2013	Tue	0735	Russian Mil. 9TGR DE 8NAG QRJ? QYT6. 9TGR DE 8NAG OK QRJ4 QYT6	CW	(TR2)
M32	5819	20-2-2013	Wed	1213	Russian Mil. LKDW LKDW DE PRAT PRAT K QSA 3 KTC ZZC K	CW	(LG2)
M32	6881	21-2-2013	Thu	0925	XXX XXX VKG9 VKG9 45162 DIGESTIYa 8472 2064 K	CW	(Gwr)
M32	6881	21-2-2013	Thu	0930	XXX XXX HOI1 HOI1 02005 KATAHREJ 0517 5135 K	CW	(Gwr)
M32	10377	21-2-2013	Thu	0931	XXX XXX HOI1 HOI1 02005 KATARHEJ 0517 5135	CW	(JU)
M32	6881	21-2-2013	Thu	0935	XXX XXX VN6B VN6B 41237 DIWA 9854 4962 K	CW	(Gwr)
M32	10377	21-2-2013	Thu	1007	XXX XXX.... ....60862 IZBOREC 6225 3126 ERETIK 6916 3408 K	CW	(JU)
M32	6881	21-2-2013	Thu	1015	XXX XXX HOI1 75549 DRAChENA 2305 0199 K	CW	(Gwr)
M32	10933	21-2-2013	Thu	1026	XXX XXX HOI1 HOI1 75549 DRAOeENA 2305 0199 //10377 kHz	CW	(JU)
M32	10377	21-2-2013	Thu	1026	XXX XXX HOI1 HOI1 75549 DRAOeENA 2305 0199 //10933	CW	(JU)

enigma	Freq. date		day	UTC	remarks	mode	contributor
					kHz		
M32	6881	21-2-2013	Thu	1045	RGT77 RGT77 765 = LSUJL YIShYuYa JGSRE AYEDJ UFBJS FGTDU SJLShY IDChChYu RVSEX TCNPD WShUPYa LYaGYaG WYaPYaW = K	CW	(Gwr)
M32	6881	21-2-2013	Thu	1142	XXX XXX ZhN6B ZhN6B 69682 OGLICA 4798 4998 K	CW	(Gwr)
M32	6883	21-2-2013	Thu	1155	"RGT77 RGT77 823 = PORZhR JHDYaO VEKShP OYEShP RMDCP GMSNA TAPIK BTChShYa XChLBS YaChZhLJ PQWTZh RIDWN AJYuPN WYaPYaE = K" on 6857//6881//6883 kHz	CW	(Gwr)
M32	6857	21-2-2013	Thu	1155	"RGT77 RGT77 823 = PORZhR JHDYaO VEKShP OYEShP RMDCP GMSNA TAPIK BTChShYa XChLBS YaChZhLJ PQWTZh RIDWN AJYuPN WYaPYaE = K" on 6857//6881//6883 kHz	CW	(Gwr)
M32	4485	21-2-2013	Thu	2053	Russian Mil. VC6C DE YNO6 K. OK AS K. I2IF DE VC6C ZQ (see N&O 185)	CW	(JPL)
M32	4485	23-2-2013	Sat	1830	925 331 2131 697 = 748 741 776 = TYDYB DSÄJT SNDSU MÄKZD LEZKÖ ÜQMZM HOLWG TCUQW HFVAP WYWChJ SKFHN TTÄSZ CJUEM IDMEO EVCÖY ULBÜK BZXWN TZPGCh MÄDSC RÄGÜQ PHRZE LÜEChA ..... (continues) RPT AL QLN K. V1NK DE VC66C. V1NK DE VC66C RPT. VC6C DE V1NK	CW	(TR2)
M32	3275	23-2-2013	Sat	1900	Russian Mil. 2QFM calls: VHXT, B96F, WQ?5 + others	CW	(TR2)
M32	3164	23-2-2013	Sat	1900	Russian Mil. GEPF calls: BUHQ, KGYM AE9M + others	CW	(TR2)
M32	3159	23-2-2013	Sat	1900	Russian Mil. J8MV calls: 4MMN + others	CW	(TR2)
M32	3220	23-2-2013	Sat	1903	Russian Mil. BT7W calls: 2ETU, JEMR, CFC5, JK1J, 6KLM	CW	(TR2)
M32	3159	23-2-2013	Sat	1930	Russian Mil. J8MV calls: SGCH, Z36C, 4MMN, SJZT, N4WP, KMPQ, CEJ3	CW	(TR2)
M32	3161	23-2-2013	Sat	1934	Russian Mil. "RGT77 RGT77 243 = JDVOZ ZTFÄÖ ÄUJÜÖ QWCFC PIRZO AVADB ÜQChKV XOIChJ SSXCCh GÜACÄ SVTJW DSKPÜ ÄUPZÄ WEPÄE =" //3178 kHz	CW	(TR2)
M32	3178	23-2-2013	Sat	1934	Russian Mil. "RGT77 RGT77 243 = JDVOZ ZTFÄÖ ÄUJÜÖ QWCFC PIRZO AVADB ÜQChKV XOIChJ SSXCCh GÜACÄ SVTJW DSKPÜ ÄUPZÄ WEPÄE =" //3161 kHz	CW	(TR2)
M32	4485	23-2-2013	Sat	2159	Russian Mil. XXX XXX YVWL YVWL ESKADRA 5228 ESKADRA 5228	CW	(TR2)
M32	5152	23-2-2013	Sat	2304	Russian Mil. SK8I DE G3WM K. QSA 3 QTC 2 K. Into RTTY û sent RYs briefly, then returned to CW . SK8I DE G3WM K	CW	(JPL-RUS)
M32	9044	25-2-2013	Mon	0801	Russian Mil. rmw56 de rmw32 zsa3 ztc k - rmw32 __ 25 1155 = 999 = toeau hzsdj .... 0809z rmw32 05 32 25 1205 = 999 = 64758 48596 04750 ...	CW	(WP3)
M32	3275	25-2-2013	Mon	1900	Russian Mil. 2QFQ calls: X8V7, B96F, WQW5, D19L	CW	(TR2)
M32	3211	25-2-2013	Mon	1902	Russian Mil. BKBK R XT45 K. N3B8 R 484 K	CW	(TR2)
M32	3171	25-2-2013	Mon	1904	Russian Mil. ???? calls: KQSN, GLN9	CW	(TR2)
M32	3261	25-2-2013	Mon	1909	Russian Mil. VDPT DE QRJX QTC. VDPT DE QRJX QTC	CW	(TR2)
M32	3220	25-2-2013	Mon	1920	Russian Mil. BT7W calls: 2ETU, JEMR, CFC5, JK1J, 6KLM	CW	(TR2)
M32	5967	25-2-2013	Mon	2100	(ip) 00206 30010 00....(//4972 kHz)	CW	(FMB)
M32	4972	25-2-2013	Mon	2100	(ip) 00206 30010 00....(// 5967 kHz)	CW	(FMB)
M32	7954	26-2-2013	Tue	2100	(ip) 03003 32400 00001 00002...(//4972/5967 kHz)	CW	(FMB)
M32	5967	26-2-2013	Tue	2100	(ip) 03003 32400 00001 00002...(// 4972//7954 kHz)	CW	(FMB)
M32	4972	26-2-2013	Tue	2100	(ip) 03003 32400 00001 00002...(// 5967//7954 kHz)	CW	(FMB)
M32	4900	27-2-2013	Wed	2002	Russian Mil. 3JLH K	CW	(TR2)
M32	4924.5	27-2-2013	Wed	2008	Russian Mil. in progress ZZG ZEU ZXX. (c/s 1). LKMMMKKVVMVLKVKMLKMMVLVVL (c/s 2). OK ZSP = = (c/s 1). NZIGW VHYIL PJÄBC GOÜEL DRMUS PAMNE SNQÜO JOPCG (continued, c/s 2)	CW	(TR2)
M32a	21438	24-1-2013		1027	Russian Navy. RIP90 DE RCV QTC 313 31 16 1602 313 = NAWIP 033 134 KARTA (etc)	CW	(IARUMS)
M32a	21438	25-1-2013		1042	Russian Navy "RCV"	CW	(IARUMS)
M32a	21438	28-1-2013		0805	Russian Navy. RCV OK QYT4 QWH 12794/16976 K	CW	(IARUMS)
M32a	8345	14-2-2013	Thu	0020	RIS96: Russian Navy. "riw deris96 qsa3 qsa? k - ok qlw k"	CW	(WP3)
M32a	8345	14-2-2013	Thu	0605	RKO81: Russian Navy AO Lena. "rcv de rko81 621 20 14 1000 621 = for rjh45 rjd38 rje73 = 14061 99367 10262 41698 71311 10155 40092 56014 70262 8772/ 22200 00170 20404	CW	(WP3)

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					300// 88000 80000 14016 = + rko81 k"		
M32a	12464	15-2-2013	Fri	1025	Russian Navy AO Lena. rcv de rko81 981 20 15 1600 981 = for rjh45 rjd38 rje73 = 15121 99367 10261 41598 63006 10170 40066 52014 70262 86338 22212 00160 29901 327// 88000 8000 15016 = + rko81 k	CW	(WP3)
M32a	12464	15-2-2013	Fri	1505	Russian Navy Rescue Tug SB-406. rmp de rjq84 qsa? k ok qap k	CW	(WP3)
M32a	8345	15-2-2013	Fri	1805	Russian Navy AO Lena. rmp de rko81 765 20 15 2200 765 = for rjh45 rjd38 rje73 = 15181 99367 10262 41998 93412 10130 40107 51015 70111 80000 22200 00130 2//// 3//// 88000 80000 15016 = + rko81 k	CW	(WP3)
M32a	12464	16-2-2013	Sat	1202	Russian Navy AO Lena. rmp de rko81 226 20 16 1600 226 = for rjh45 rjd38 rje73 = 16121 99367 10262 41698 22301 10140 40159 52010 70100 82101 22200 00160 20000 30000 88000 80000 16016 = + rko81 k	CW	(WP3)
M32a	8345	16-2-2013	Sat	1801	Russian Navy. RCV DE RKO81 QTC. RKO81 315 ?? 16 2200 315 = FOR RJH45 RJD38 RJE73 = 16181 99367 10262 22200	CW	(TR2)
M32a	8345	16-2-2013	Sat	1805	Russian Navy AO Lena. rmp de rko81 315 20 16 2200 315 = for rjh45 rjd38 rje73 = 16181 99367 10262 41698 60501 10120 40159 54000 70300 8614/ 22200 00160 20000 30000 88000 80000 16016 = + rko81 k	CW	(WP3)
M32a	12464	18-2-2013	Mon	1205	Russian Navy AO Lena. rcv de rko81 207 20 18 1600 207 = for rjh45 rjd38 rje73 = 18121 99367 10262 41698 23407 10130 40146 42020 70110 82121 22200 00160 204// 30000 88000 80000 18016 = + rko81 k	CW	(WP3)
M32a	13086	19-2-2013	Tue	0756	RIW: Russian Navy HQ Moscow. riw clg rmc99 prijom after coord on 12464	CW	(WP3)
M32a	12464	19-2-2013	Tue	1208	RKO81: Russian Navy AO Lena. rcv de rko81 985 20 19 1600 985 = for rjh45 rjd38 rje73 = 19121 99367 10262 41698 51709 10150 40132 52010 70312 85122 22200 00160 20401 30000 88000 80000 19016 = + rko81 k	CW	(WP3)
M32a	19201	25-2-2013	Mon	1328	RCV: Russian Navy Sevastopol UKR ip weather reports including for Tartus Syria	CW	(LG2)
M32b	8816	15-2-2013	Fri	0950	Russian Naval Air Transport AN-12. rjf94 de 08202 qqm XUEM 0948	CW	(WP3)
M32b	8816	15-2-2013	Fri	1025	Russian Naval Air Transport AN-26. rjf94 rcb de 30740 qto 1001 qrd XRKA XUOW qah 5800 qbd 0500 k - qay XRRI 1110 qah5800 qbd 0350 k - qay XRKP 1205 qah 5800 qal XRKA 1245 qbd 0300 k - qqm XRKA 1242 sk	CW	(WP3)
M32b	8816	15-2-2013	Fri	1442	Russian Naval Air Transport AN-12. rjf94 rjc38 de 08202 qto 1434 qrd XLMV XUEM qre 1740 qbd 12600 k - qth 6622 3334 qtr 1640 qbg 7300 k	CW	(WP3)
M32b	8816	16-2-2013	Sat	0618	Russian Naval Air Transport. rjc38 rjf94 de 52415 qto 0612 qrd XLLV XLMV qre 0920 qbd 5100 k qql XLMF 0650 qbg 5200 k qql ULPE 0723 qbd 3800 qbg 4900 k qay XLPB 0812 qbd 3100 qre XLLV 0905 k qql XLLV 0952 sk	CW	(WP3)
M32b	8816	16-2-2013	Sat	0840	Russian Naval Air Transport AN-26. rjf94 rcb de 30740 qto 0810 qrd XUOW XRKA qah 5500 qbd 0430 k qth 4955 4032 qtr 0942 qah 5500 qal XUOW 1025 qbd 0330 k qqm XUOW 1030 sk	CW	(WP3)
M32b	8816	16-2-2013	Sat	1010	Russian Naval Air Transport. rjc38 rjf94 de 52415 qto 1000 qrd XLMV XLLV qre 1305 qbd 5300 k qql XLPB 1058 qbd 4400 qbg 5200 k qql ULPE 1150 qbd 3500 qre XLMV 1305 k qql XLMF 1230 k qql XLMV 1304 sk	CW	(WP3)
M32b	8816	16-2-2013	Sat	1553	Russian Naval Air Transport AN-26. rjf94 rcb de 30740 qto 1330 qrd XLLV XUOW qah 5500 qbd 0500 k qay XUEM 1448 qah 5500 qbd 0400 k qqm XLLV 1630 sk	CW	(WP3)
M32b	8816	18-2-2013	Mon	1052	Russian Naval Air Transport. rjf94 rjc38 de 52411 qto 0943 qrd XLLV XLMV qbd 4600 qre 1255 k - qql ULPE 1050 qbg 5800 qbd 3300 k - qay XLPB 1145 qbg 6000 qbd 2200 k - qqm XLLV 1240 sk	CW	(WP3)
M32b	8816	18-2-2013	Mon	1350	Russian Naval Air Transport. rjf94 rjc38 de 52416 qto 1130	CW	(WP3)

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					qrd XLLV XLMV qre 1450 qbd 5000 k - qql XLMF 1202 qbg 5200 k - qql ULPE 1244 qbd 3600 qbg 5500 k - qql XLPB 1335 qbd 2800 qre XLLV 1430 k - qqm XLLV 1422 sk		
M32b	8816	18-2-2013	Mon	1354	Russian Naval Air Transport. rjf94 rjc38 de 52411 qto 1338 qrd XUMO XLLV qbd 5300 qre 1530 k - qth 5805 3408 qtr 1437 qbg 5800 qbd 4200 k - qqm XUMO 1535 sk	CW	(WP3)
M32b	8816	18-2-2013	Mon	1442	Russian Naval Air Transport. CW rjf94 de rjc38 qsa3 k ok rpt fm 52411 qth 5805 3408	CW	(WP3)
M32b	8816	18-2-2013	Mon	1442	Russian Naval Air Transport. rjc38 de rjf94 qsa ? k qsa3 rpt fm 52411 k	CW	(WP3)
M32b	8816	18-2-2013	Mon	1451	RCB: Russian Naval Air Transport	CW	(LG2)
M32b	8816	19-2-2013	Tue	0717	52411: Russian Naval Air Transport AN-26. rjf94 rjc38 de 52411 qth 6313 3547 qtr 0715 qbg 6100 qbd 3600 k - qth 6635 3323 qtr 0815 qbg 6100 qbd 2500 k - qqm XLMV 0905 sk	CW	(WP3)
M32b	8816	19-2-2013	Tue	0811	52416: Russian Naval Air Transport AN-26. rjf94 rjc38 de 52416 qql XLPB 0704 qbd 3900 qbg 5800 k - qql ULPE 0757 qbd 3000 qre XLMV 0910 k - qql XLMF 0838 k - qqm XLMV 0922 sk	CW	(WP3)
M32b	12464.3	19-2-2013	Tue	0970	RMC99: Russian Navy. riw de rmc99 ok qap k - riw: qsu1 qwh 13086 qsx 12260 k - 0840z repeating msg fm raa	CW	(WP3)
M32c	7018	13-1-2013		1535	Russian Air Force Moscow "REA4"	CW	(IARUMS)
M32c	14036	13-1-2013		1535	Russian Air Force Moscow. Harmonic of 7018 kHz	CW	(IARUMS)
M32c	8112	6-2-2013	Wed	0600	Russian Air Force. Brief W Markers with a RPT K. No calls noted.	CW	(Tom)
M32c	8112	6-2-2013	Wed	1800	Russian Air Force "W" marker	CW	(AB)
M32c	8112	6-2-2013	Wed	1812	Russian Air Force "R R K" followed by a message at 1816 UTC. Very weak. Not the "W" station	CW	(AB)
M32c	8112	6-2-2013	Wed	1820	Russian Air Force "W" marker	CW	(AB)
M32c	8112	6-2-2013	Wed	1840	Russian Air Force. "W" Marker	CW	(TR2)
M32c	8112	6-2-2013	Wed	2000	Russian Air Force "W" marker	CW	(AB)
M32c	8112	6-2-2013	Wed	2040	Russian Air Force "W" marker	CW	(AB)
M32c	8112	6-2-2013	Wed	2100	Russian Air Force "W" marker	CW	(AB)
M32c	8112	6-2-2013	Wed	2120	Russian Air Force "W" marker	CW	(AB)
M32c	8816	15-2-2013	Fri	1446	Russian Air Force. RJF94 QTO 1434 QRD XLMV XUEM QRE 1740 QBD 12600	CW	(TR2)
M32c	8816	15-2-2013	Fri	1540	Russian Air Force. RJF94 RJC38 DE 08202 QTC K. 08202 DE RJF94 QRV. 08202 DE RJC38 QRV. 08202 QTH 61173700 QTR 1540 QBG 7300 RPT AL K	CW	(TR2)
M32c	8816	15-2-2013	Fri	1642	Russian Air Force. 08202 DE RJC38 QRV. 08202 QTH 66223334 QTR 1640 QBG 7300 RPT AL K	CW	(TR2)
M32c	8816	16-2-2013	Sat	0944	Russian Air Force. 30740 DE RJF94 QRV K (30740 replies with pos rep, too faint to copy). RJF94 QTH 49554032 QTR 0942 QAH 5500 QAL XUOW 1025 QBD 0330 K	CW	(TR2)
M32c	8816	16-2-2013	Sat	1008	Russian Air Force. RJF94 DE 52415 QSA? QTC. 52415 DE RJF94 QSA 2 QRV. 52415 QTO 1000 QRD XLMV XLLV QRE 1305 QBD 5300 RPT AL	CW	(TR2)
M32c	8816	16-2-2013	Sat	1011	Russian Air Force. RJF94 QTO 1000 QRD XLMV XLLV QRE 1305 QBD 5300	CW	(TR2)
M32c	8816	16-2-2013	Sat	1031	Russian Air Force. RJF94 QQM XUOW 1030 (presumed in reply to 30740)	CW	(TR2)
M32c	8816	16-2-2013	Sat	1104	Russian Air Force. RJF94 DE 52415 QTC. 52415 DE RJF94 QRV. 52415 QQL XLPB 1058 QBD 4400 QBG 5200 RPT AL. RJF94 QQL XLPB 1058 QBD 4400 QBG 5200	CW	(TR2)
M32c	8816	16-2-2013	Sat	1155	Russian Air Force. (52415 sends msg, too weak to copy but guessing a QTC) 52415 DE RJF94 QRV. 52415 QQL XLPE 1150 QBD 3500 QRE XLMV 1305 RPT AL. RJF94 QQL XLPE 1150 QBD 3500 QRE XLMV 1305	CW	(TR2)
M32c	8816	16-2-2013	Sat	1230	Russian Air Force. RJC38 RJF94 DE 52415 QTC. 52415 DE RJF94 QRV. 52415 QQL XLMF 1230 RPT AL. RJF94 QQL XUMF 1230. 52415 QQL XLMF 1230 RPT AL. RJF94 QQL XLMF 1230	CW	(TR2)

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M32c	8816	16-2-2013	Sat	1304	Russian Air Force. RJF94 RPT. RJF94 QQL XLMV 1304. 1305z RJF94 OKS	CW	(TR2)
M32c	8816	16-2-2013	Sat	1352	Russian Air Force. RJF94 DE 30740 QSA? QTC. 30740 DE RJF94 QSA1 QRV. 30740 QTO 1330 QRD XLLV XUOW QAH 5500 QBD 0500 RPT AL. RJF94 QTO 1330 QRD XLLV XUOW QAH 5500 QBD 0500	CW	(TR2)
M32c	8112	19-2-2013	Tue	1220	Russian Air Force "W" marker	CW	(Tom)
M41	6343	1-2-2013	Fri	0638	Russian Air Defense. 438 4382 0341 03 = PWZW = 0341 7526196 10 03 = (see N&O 185)	CW	(TJ)
M42	7630	29-1-2013		0732	Russian Gov/Intel.	RUS-ARQ 100/500	(BCI)
M42	16166.5	30-1-2013		0632	Russian diplo	CROWD-36	(BCI)
M42	18150.5	30-1-2013		0658	Russian Gov/Intel.	RUS-ARQ 100/2000	(BCI)
M42	15250	30-1-2013		0817	Russian Gov/Intel.	RUS-ARQ 100/500	(BCI)
M42	15270	30-1-2013		0819	Russian Gov/Intel.	RUS-ARQ 100/1000	(BCI)
M42	23000	30-1-2013		0830	Russian Gov/Intel.	RUS-ARQ 100/1000	(BCI)
M42	5793	31-1-2013		2001	Russian Gov/Intel. 00008+++++++++++162 5761	Baudot 200/500	(BCI)
M42	16320	1-2-2013	Fri	0154	Russian Intel	FSK 200/1000	(Dan)
M42	14655.5	1-2-2013	Fri	0750	Russian diplo	CROWD-36	(BCI)
M42	16320	6-2-2013	Wed	0154	Russian Intel.	FSK 200/1000	(AB)
M42	16320	7-2-2013	Thu	0151	Russian Intel.	FSK 200/1000	(Dan)
M42	16320	8-2-2013	Fri	0152	Russian Intel.	FSK 200/1000	(Dan)
M42	18713	8-2-2013	Fri	1500	Russian diplo	CROWD-36	(EW)
M42	19441	9-2-2013	Sat	1300	Russian Intel. 00000+++++++++++162)5761	FSK 200/500	(AB)
M42	17456	9-2-2013	Sat	1320	Russian Intel. 00000+++++++++++162)5761	FSK 200/500	(AB)
M42	15817	9-2-2013	Sat	1340	Russian Intel. 00000+++++++++++162)5761	FSK 200/500	(AB)
M42	16320	11-2-2013	Mon	0152	Russian Intel.	FSK 200/1000	(Dan)
M42	16320	12-2-2013	Tue	0146	Rissian Intel.	FSK 200/1000	(Dan)
M42	16320	13-2-2013	Wed	0151	Russian Intel.	FSK 200/1000	(Dan)
M42	16320	14-2-2013	Thu	0153	Russian Intel.	FSK 200/1000	(Dan)
M42	16320	15-2-2013	Fri	0147	Russian Intel.	FSK 200/1000	(Dan)
M42	10421	18-2-2013	Mon	0800	Russian Intel.	FSK 200/1000	(FMB)
M42	8016	18-2-2013	Mon	0810	Russian Intel.	FSK 200/1000	(FMB)
M42	11048	19-2-2013	Tue	0700	Russian Intel.	FSK 200/1000	(FMB)
M42	9244	19-2-2013	Tue	0710	Russian Intel.	FSK 200/1000	(FMB)
M42	7319	19-2-2013	Tue	0720	Russian Intel.	FSK 200/1000	(FMB)
M42	11472	19-2-2013	Tue	1650	Russian Intel.	FSK 200/1000	(FMB)
M42	9215	19-2-2013	Tue	1700	Russian Intel.	FSK 200/1000	(FMB)
M42	7637	19-2-2013	Tue	1710	Russian Intel.	FSK 200/1000	(FMB)
M42	16320	21-2-2013	Thu	0150	Russian Intel. Id 0x71	FSK 200/1000	(Dan)
M42	16320	25-2-2013	Mon	0150	Russian Intel.	FSK 200/1000	(Dan)
M42	6836	26-2-2013	Tue	2200	Russian Intel.	FSK 200/1000	(FMB)
M42	5458	26-2-2013	Tue	2210	Russian Intel.	FSK 200/1000	(FMB)
M42	4060	26-2-2013	Tue	2220	Russian Intel.	FSK 200/1000	(FMB)
M42	8100	26-2-2013	Tue	2300	Russian Intel.	FSK 200/1000	(FMB)
M42	6784	26-2-2013	Tue	2310	Russian Intel.	FSK 200/1000	(FMB)
M42	16320	27-2-2013	Wed	0150	Russian Intel.	FSK 200/1000	(Dan)
M42	16320	28-2-2013	Thu	0150	Russian Intel	FSK 200/1000	(Dan)
M51	5453	5-2-2013	Tue	1010	ip 5LGs	CW	(LG2)
M51	6851	6-2-2013	Wed	1354	ip 5LGs	CW	(LG2)
M51	8016	10-2-2013	Sun	1135	ip5LGs	CW	(LG2)
M51	6825	14-2-2013	Thu	0933	FAV22: French Army Mont-Valerien "VVV DE FAV22 FAV22 FAV22 QLH 3881/6825 KHZ VITESSE ANNONCEES LEGERE-	CW	(WP3)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
					MENT SUPERIEURES. LECON 04-1/1 VITESSE 840 CODE BT YTSRI TSHQ....."		
M51	5453	20-2-2013	Wed	1809	M 51 BT NR 03 F 20 19:15:03 1985 BT 5 fgs	CW	(BvR)
M51	9213	25-2-2013	Mon	1527	ip 5LGs morse practice	CW	(LG2)
M51	9213	25-2-2013	Mon	1913	ip	CW	(FMB)
M51	8016	26-2-2013	Tue	0810	ip	CW	(FMB)
M51	9213	26-2-2013	Tue	1629	ip	CW	(FMB)
M51	8016	27-2-2013	Wed	1630	ip	CW	(FMB)
M51	9213	27-2-2013	Wed	1630	ip	CW	(FMB)
M51	6853	27-2-2013	Wed	1820	ip	CW	(FMB)
M51	5452	27-2-2013	Wed	1823	ip	CW	(FMB)
M51a	6825	25-2-2013	Mon	1302	FAV22 in progress	CW	(LG2)
M89	7582	1-2-2013	Fri	0131	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	10779	1-2-2013	Fri	0133	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4474	1-2-2013	Fri	0140	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	10640	1-2-2013	Fri	0220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	1-2-2013	Fri	0220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	5230	1-2-2013	Fri	1205	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	7607	1-2-2013	Fri	1207	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4474	1-2-2013	Fri	1406	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	7582	3-2-2013	Sun	0403	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	3-2-2013	Sun	0403	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10779	3-2-2013	Sun	0406	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	10640	3-2-2013	Sun	0419	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)
M89	4860	3-2-2013	Sun	1420	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	3-2-2013	Sun	1420	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5500	3-2-2013	Sun	1426	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	3-2-2013	Sun	1426	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3797	3-2-2013	Sun	1428	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	3-2-2013	Sun	1428	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	7607	3-2-2013	Sun	1433	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	3-2-2013	Sun	1433	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	4860	3-2-2013	Sun	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	3-2-2013	Sun	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3330	3-2-2013	Sun	1526	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	3-2-2013	Sun	1724	In tfc: EE UADN V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	5230	3-2-2013	Sun	1736	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	3-2-2013	Sun	1955	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	3-2-2013	Sun	2046	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10779	4-2-2013	Mon	0702	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5801	4-2-2013	Mon	0730	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10180	4-2-2013	Mon	0730	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5500	4-2-2013	Mon	1010	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	4-2-2013	Mon	1010	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	10779	4-2-2013	Mon	1012	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	8789	4-2-2013	Mon	1012	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	4512	4-2-2013	Mon	1014	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	4-2-2013	Mon	1014	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10180	4-2-2013	Mon	1016	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	10640	4-2-2013	Mon	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	4-2-2013	Mon	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	4474	4-2-2013	Mon	1501	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	3330	4-2-2013	Mon	1851	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	4-2-2013	Mon	2034	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	4-2-2013	Mon	2317	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	4-2-2013	Mon	2319	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	4512	4-2-2013	Mon	2326	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	6773	4-2-2013	Mon	2326	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10779	4-2-2013	Mon	2328	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5230	4-2-2013	Mon	2330	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	4-2-2013	Mon	2330	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	4474	4-2-2013	Mon	2333	In tfc: A63D N6T7 A4U5 NA4D U7T5 365A 63N4 U7T7D 35N7 4DT6 (See N&O 185)	CW	(JPL)
M89	4474	4-2-2013	Mon	2356	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	5230	4-2-2013	Mon	2358	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4474	5-2-2013	Tue	0004	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	5230	5-2-2013	Tue	0006	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	6840	5-2-2013	Tue	0020	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)
M89	10779	5-2-2013	Tue	0028	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5500	5-2-2013	Tue	1104	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	5-2-2013	Tue	1104	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	10779	5-2-2013	Tue	1105	V WITN (x3) DE GNXG (x2) (Cont'd) //5763	CW	(JPL)
M89	5763	5-2-2013	Tue	1105	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	3797	5-2-2013	Tue	1108	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	5-2-2013	Tue	1108	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5801	5-2-2013	Tue	1111	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10180	5-2-2013	Tue	1111	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	7607	5-2-2013	Tue	1148	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	5-2-2013	Tue	1148	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3330	5-2-2013	Tue	1150	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	7602	5-2-2013	Tue	1326	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5801	5-2-2013	Tue	1326	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	3330	5-2-2013	Tue	1359	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4225	5-2-2013	Tue	1401	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	5-2-2013	Tue	1401	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4590	5-2-2013	Tue	1403	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	5-2-2013	Tue	1403	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4512	5-2-2013	Tue	1405	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	5-2-2013	Tue	1405	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4225	5-2-2013	Tue	1606	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	5-2-2013	Tue	1608	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3642	5-2-2013	Tue	1610	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4512	5-2-2013	Tue	1612	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	5-2-2013	Tue	1612	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	5-2-2013	Tue	1614	In tfc: 64UT N465 37UD 57TA 456U TN74 (ContÆd) AR	CW	(JPL)
M89	4225	5-2-2013	Tue	1915	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	5-2-2013	Tue	1917	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	5-2-2013	Tue	1919	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	5-2-2013	Tue	1919	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	6840	5-2-2013	Tue	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	5-2-2013	Tue	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4474	5-2-2013	Tue	1925	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	3330	5-2-2013	Tue	1927	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4225	6-2-2013	Wed	2253	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4512	6-2-2013	Wed	2255	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	6773	6-2-2013	Wed	2255	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	7607	6-2-2013	Wed	2257	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	6-2-2013	Wed	2257	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3330	6-2-2013	Wed	2258	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4474	6-2-2013	Wed	2301	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	5230	6-2-2013	Wed	2303	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	6840	6-2-2013	Wed	2320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	4860	6-2-2013	Wed	2320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4225	6-2-2013	Wed	2329	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	6-2-2013	Wed	2329	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	5588	6-2-2013	Wed	2337	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10180	7-2-2013	Thu	1026	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	10779	7-2-2013	Thu	1029	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	7607	7-2-2013	Thu	1056	V WITN (x3) DE GNXG (x2) Note: Switched from daytime to nightime freqs at 1055.	CW	(JPL)
M89	10180	7-2-2013	Thu	1101	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4590	7-2-2013	Thu	1606	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	7-2-2013	Thu	1606	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	5230	7-2-2013	Thu	1613	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4590	7-2-2013	Thu	1631	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	7-2-2013	Thu	1633	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	3330	7-2-2013	Thu	1634	2SLC in tfc: TTTU DNT3 NAA3 ATN7 U7AA 5575 6U33 5TTU 6535 D6U3 643A T57A AR MSG NR 027 CK 301 44 0208 003	CW	(JPL)
M89	6840	7-2-2013	Thu	1719	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)
M89	5230	7-2-2013	Thu	1724	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	5500	8-2-2013	Fri	1232	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	3330	8-2-2013	Fri	1234	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	7607	8-2-2013	Fri	1236	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	8-2-2013	Fri	1236	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3797	8-2-2013	Fri	1238	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	4474	8-2-2013	Fri	1239	In tfc: 365D T74N 3A6U U5D4 N7T3 6UN5 3D76 (Cont'd)	CW	(JPL)
M89	4474	8-2-2013	Fri	1511	In tfc - handsent and slow CW- Appears to be the weaker station previously on this freq	CW	(JPL)
M89	6840	8-2-2013	Fri	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	8-2-2013	Fri	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	3330	8-2-2013	Fri	1525	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	8-2-2013	Fri	1555	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	8-2-2013	Fri	1555	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	7607	8-2-2013	Fri	1556	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	8-2-2013	Fri	1556	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3797	8-2-2013	Fri	1558	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	8-2-2013	Fri	1558	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	8-2-2013	Fri	1602	In tfc - Probably 2SLC: 5UN4 D6NT U3A3 3634 4N7N 75TD A6N5 5T65 T6N3 (see N&O 185)	CW	(JPL)
M89	4474	8-2-2013	Fri	1843	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	4590	8-2-2013	Fri	2041	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	8-2-2013	Fri	2043	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	8-2-2013	Fri	2043	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	8-2-2013	Fri	2044	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	8-2-2013	Fri	2320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	8-2-2013	Fri	2320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	7582	8-2-2013	Fri	2330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	8-2-2013	Fri	2330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	5588	8-2-2013	Fri	2333	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10180	9-2-2013	Sat	1010	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	10779	9-2-2013	Sat	1012	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3330	9-2-2013	Sat	1018	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	9-2-2013	Sat	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	9-2-2013	Sat	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	3330	9-2-2013	Sat	1226	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10779	9-2-2013	Sat	1434	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4225	9-2-2013	Sat	1515	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	9-2-2013	Sat	1515	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	3797	9-2-2013	Sat	1517	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	9-2-2013	Sat	1517	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	9-2-2013	Sat	1532	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	6840	9-2-2013	Sat	1720	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	9-2-2013	Sat	1720	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	3330	9-2-2013	Sat	1726	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	9-2-2013	Sat	1727	V MW3D MW3D MW3D DE 2SLC 2SLC	CW	(AB-HK)
M89	4225	9-2-2013	Sat	1729	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3793	9-2-2013	Sat	1729	V WITN WITN WITN DE GNXG GNXG //4590 kHz	CW	(AB-HK)
M89	4590	9-2-2013	Sat	1729	V WITN WITN WITN DE GNXG GNXG //3797 kHz	CW	(AB-HK)
M89	5500	9-2-2013	Sat	1729	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	8789	9-2-2013	Sat	1731	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	9-2-2013	Sat	1733	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	9-2-2013	Sat	1733	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4225	9-2-2013	Sat	2330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	9-2-2013	Sat	2330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	8789	9-2-2013	Sat	2332	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	10779	9-2-2013	Sat	2332	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	4512	9-2-2013	Sat	2334	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	4474	9-2-2013	Sat	2341	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	5500	10-2-2013	Sun	0001	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	10-2-2013	Sun	0001	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	10779	10-2-2013	Sun	0003	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	6773	10-2-2013	Sun	0005	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	8040	10-2-2013	Sun	0005	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	5500	10-2-2013	Sun	0013	In chat: VV VV VV V 7NPE (x3) DE QV5B (x2) //4225	CW	(JPL)
M89	4225	10-2-2013	Sun	0013	In chat: VV VV VV V 7NPE (x3) DE QV5B (x2) //5500	CW	(JPL)
M89	7582	10-2-2013	Sun	0016	In tfc: 0/ ./32 AR. V 7NPE (x3) DE QV5B (x2) //8110	CW	(JPL)
M89	8110	10-2-2013	Sun	0016	In tfc: 0/ ./32 AR. V 7NPE (x3) DE QV5B (x2) //7582	CW	(JPL)
M89	6840	10-2-2013	Sun	0020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	10-2-2013	Sun	0020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	10180	10-2-2013	Sun	0325	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5801	10-2-2013	Sun	0325	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10779	10-2-2013	Sun	0326	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5006	10-2-2013	Sun	1038	In chat: ? R R. 8W = A77T AR (see N&O 185)	CW	(JPL)
M89	5500	10-2-2013	Sun	1052	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	10-2-2013	Sun	1052	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5588	10-2-2013	Sun	1053	In tfc: TDA6 4DDN T4A7 5T37 3U46 N375 67U6 A77A TUN7 6TDE AR	CW	(JPL)
M89	5500	10-2-2013	Sun	1827	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	10-2-2013	Sun	1827	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3330	10-2-2013	Sun	1829	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4590	10-2-2013	Sun	1832	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	10-2-2013	Sun	1832	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4512	10-2-2013	Sun	1834	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	10-2-2013	Sun	1834	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4860	10-2-2013	Sun	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	10-2-2013	Sun	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3330	10-2-2013	Sun	1926	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	10-2-2013	Sun	2036	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	7607	10-2-2013	Sun	2148	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	10-2-2013	Sun	2148	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3797	10-2-2013	Sun	2150	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	10-2-2013	Sun	2150	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	10-2-2013	Sun	2152	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	10-2-2013	Sun	2203	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	4225	10-2-2013	Sun	2203	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3330	10-2-2013	Sun	2301	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4590	10-2-2013	Sun	2305	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	10-2-2013	Sun	2305	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4512	10-2-2013	Sun	2307	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	6773	10-2-2013	Sun	2307	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5230	10-2-2013	Sun	2309	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	7582	11-2-2013	Mon	0407	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	11-2-2013	Mon	0407	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10779	11-2-2013	Mon	0409	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	8789	11-2-2013	Mon	0409	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	10779	11-2-2013	Mon	1039	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5500	11-2-2013	Mon	1048	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	11-2-2013	Mon	1048	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	8789	11-2-2013	Mon	1050	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	10779	11-2-2013	Mon	1050	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	4512	11-2-2013	Mon	1052	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	11-2-2013	Mon	1052	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	11-2-2013	Mon	1054	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	10180	11-2-2013	Mon	1056	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4590	11-2-2013	Mon	1102	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	11-2-2013	Mon	1102	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	6840	11-2-2013	Mon	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	11-2-2013	Mon	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4590	11-2-2013	Mon	1126	In tfc: 3T45 N6U. T5.3 6N37 N67U 6NUA (ContÆd) AR .. K. V WITN (x3) DE GNXG (x2) //7607	CW	(JPL)
M89	7607	11-2-2013	Mon	1126	In tfc: 3T45 N6U. T5.3 6N37 N67U 6NUA (ContÆd) AR .. K. V WITN (x3) DE GNXG (x2) //4590	CW	(JPL)
M89	3330	11-2-2013	Mon	1130	2SLC in tfc: CK 301 44 0211 1930 = (see N&O 185)	CW	(JPL)
M89	4225	11-2-2013	Mon	1435	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	11-2-2013	Mon	1435	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3797	11-2-2013	Mon	1437	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	11-2-2013	Mon	1437	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	11-2-2013	Mon	1439	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	4225	11-2-2013	Mon	1605	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	11-2-2013	Mon	1605	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3797	11-2-2013	Mon	1607	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	11-2-2013	Mon	1607	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	11-2-2013	Mon	1609	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	4860	11-2-2013	Mon	1620	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	11-2-2013	Mon	1620	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4225	11-2-2013	Mon	1818	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	11-2-2013	Mon	1818	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	6840	11-2-2013	Mon	1819	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	11-2-2013	Mon	1819	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	3330	11-2-2013	Mon	1825	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	3797	11-2-2013	Mon	1827	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	11-2-2013	Mon	1827	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4225	11-2-2013	Mon	2045	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	11-2-2013	Mon	2045	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4512	11-2-2013	Mon	2051	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	11-2-2013	Mon	2051	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	11-2-2013	Mon	2054	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	4474	11-2-2013	Mon	2106	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	8110	12-2-2013	Tue	0036	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	12-2-2013	Tue	0036	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	8789	12-2-2013	Tue	0041	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	10779	12-2-2013	Tue	0041	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	6773	12-2-2013	Tue	0043	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	5588	12-2-2013	Tue	0045	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	4474	12-2-2013	Tue	0047	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	10640	12-2-2013	Tue	0120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	12-2-2013	Tue	0120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	5500	12-2-2013	Tue	1504	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	12-2-2013	Tue	1504	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3797	12-2-2013	Tue	1507	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	12-2-2013	Tue	1507	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	12-2-2013	Tue	1509	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	6840	12-2-2013	Tue	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	12-2-2013	Tue	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4225	12-2-2013	Tue	1745	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	12-2-2013	Tue	1745	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4512	12-2-2013	Tue	1747	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	12-2-2013	Tue	1747	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	12-2-2013	Tue	1750	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	3797	12-2-2013	Tue	2200	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	12-2-2013	Tue	2200	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	12-2-2013	Tue	2202	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	4474	13-2-2013	Wed	0047	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	7582	13-2-2013	Wed	0934	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	13-2-2013	Wed	0934	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10779	13-2-2013	Wed	0936	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	13-2-2013	Wed	0939	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	13-2-2013	Wed	0939	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	10180	13-2-2013	Wed	0941	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	5588	13-2-2013	Wed	0943	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10640	13-2-2013	Wed	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	13-2-2013	Wed	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	5500	13-2-2013	Wed	1704	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	13-2-2013	Wed	1704	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4512	13-2-2013	Wed	1708	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	13-2-2013	Wed	1708	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3300	13-2-2013	Wed	1710	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	13-2-2013	Wed	1720	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	13-2-2013	Wed	1720	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	5230	13-2-2013	Wed	1727	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4225	13-2-2013	Wed	1818	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	13-2-2013	Wed	1818	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4860	13-2-2013	Wed	1820	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	13-2-2013	Wed	1820	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3725	13-2-2013	Wed	1828	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	13-2-2013	Wed	1829	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	13-2-2013	Wed	1829	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3300	13-2-2013	Wed	1831	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3725	13-2-2013	Wed	2033	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	13-2-2013	Wed	2035	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	13-2-2013	Wed	2035	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3300	13-2-2013	Wed	2037	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	13-2-2013	Wed	2054	V 7NPE 7NPE 7NPE DE QV5B QV5B	CW	(TR2)
M89	4225	13-2-2013	Wed	2250	V 7NPE (x3) DE QV5B (x2) (Cont'd) 5500	CW	(JPL)
M89	5500	13-2-2013	Wed	2250	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	13-2-2013	Wed	2252	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	6840	13-2-2013	Wed	2320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	13-2-2013	Wed	2320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	3300	13-2-2013	Wed	2325	In tfc - Probably 2SLC: very weak 4 fig cut nr msg AR	CW	(JPL)
M89	6773	13-2-2013	Wed	2333	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	5230	13-2-2013	Wed	2335	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4474	13-2-2013	Wed	2337	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	8110	14-2-2013	Thu	0206	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	14-2-2013	Thu	0206	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	10779	14-2-2013	Thu	0208	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	10180	14-2-2013	Thu	0210	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	10640	14-2-2013	Thu	0220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	14-2-2013	Thu	0220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	10180	14-2-2013	Thu	0232	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5801	14-2-2013	Thu	0232	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10779	14-2-2013	Thu	1035	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	10180	14-2-2013	Thu	1037	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4225	14-2-2013	Thu	1055	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	14-2-2013	Thu	1055	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	10779	14-2-2013	Thu	1057	V WITN (x3) DE GNXG (x2) (Cont'd) //5763	CW	(JPL)
M89	5763	14-2-2013	Thu	1057	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	4512	14-2-2013	Thu	1059	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	14-2-2013	Thu	1059	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10180	14-2-2013	Thu	1102	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4860	14-2-2013	Thu	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	14-2-2013	Thu	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5500	14-2-2013	Thu	1825	(In UGT COMM Msg - mostly U/R) V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	14-2-2013	Thu	1825	(In UGT COMM Msg - mostly U/R) V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	14-2-2013	Thu	1830	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	14-2-2013	Thu	1830	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3797	14-2-2013	Thu	1832	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	14-2-2013	Thu	1832	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	14-2-2013	Thu	1834	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3725	14-2-2013	Thu	2039	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	14-2-2013	Thu	2041	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	14-2-2013	Thu	2041	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	14-2-2013	Thu	2043	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	7602	14-2-2013	Thu	2045	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3725	14-2-2013	Thu	2047	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	14-2-2013	Thu	2047	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	4474	14-2-2013	Thu	2049	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	8110	15-2-2013	Fri	0025	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	15-2-2013	Fri	0025	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	10779	15-2-2013	Fri	0027	In tfc: COMM. /0915/LZ2.9A2/3897/3.74 AR. HR WK NR 16. Returns to V WITN (x3) DE GNXG (x2)//5763	CW	(JPL)
M89	5763	15-2-2013	Fri	0027	In tfc: COMM. /0915/LZ2.9A2/3897/3.74 AR. HR WK NR 16. Returns to V WITN (x3) DE GNXG (x2)//10779	CW	(JPL)
M89	6773	15-2-2013	Fri	0034	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	8040	15-2-2013	Fri	0034	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	3330	15-2-2013	Fri	0037	2SLC in tfc: 6734 5.5T 36AN U.D. ND75 N4U. (see N&O 185)	CW	(JPL)
M89	10640	15-2-2013	Fri	0220	VVV (x3) Q2M DE NYZ (x2) QSA ? K /6840 Note: NYZ on 6841 vice 6840 - very raspy TX - Technical issues?	CW	(JPL)
M89	6841	15-2-2013	Fri	0220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	8110	15-2-2013	Fri	0225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10180	15-2-2013	Fri	0229	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	10180	15-2-2013	Fri	0952	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	5500	15-2-2013	Fri	1004	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	15-2-2013	Fri	1004	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	10779	15-2-2013	Fri	1006	V WITN (x3) DE GNXG (x2) (Cont'd) //5763	CW	(JPL)
M89	5763	15-2-2013	Fri	1006	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	4512	15-2-2013	Fri	1008	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	15-2-2013	Fri	1008	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10180	15-2-2013	Fri	1010	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	15-2-2013	Fri	1014	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	15-2-2013	Fri	1407	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	15-2-2013	Fri	1407	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	7607	15-2-2013	Fri	1410	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3330	15-2-2013	Fri	1414	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6841	15-2-2013	Fri	1420	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	15-2-2013	Fri	1420	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6841	15-2-2013	Fri	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)
M89	7607	15-2-2013	Fri	1526	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5500	15-2-2013	Fri	1528	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	7607	15-2-2013	Fri	1530	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5500	15-2-2013	Fri	1613	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	15-2-2013	Fri	1613	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4590	15-2-2013	Fri	1615	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	15-2-2013	Fri	1615	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	3797	15-2-2013	Fri	1617	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	15-2-2013	Fri	1617	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	15-2-2013	Fri	1618	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	15-2-2013	Fri	1620	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6841	15-2-2013	Fri	1620	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4225	15-2-2013	Fri	1922	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	15-2-2013	Fri	1922	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4590	15-2-2013	Fri	1924	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	15-2-2013	Fri	1924	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	3797	15-2-2013	Fri	1926	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	15-2-2013	Fri	1926	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	15-2-2013	Fri	1928	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	15-2-2013	Fri	1930	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	15-2-2013	Fri	2131	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	15-2-2013	Fri	2134	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	15-2-2013	Fri	2134	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	3797	15-2-2013	Fri	2136	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	15-2-2013	Fri	2136	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	15-2-2013	Fri	2138	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	15-2-2013	Fri	2140	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4474	15-2-2013	Fri	2142	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	4225	17-2-2013	Sun	1350	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	17-2-2013	Sun	1350	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	17-2-2013	Sun	1352	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	7602	17-2-2013	Sun	1355	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4512	17-2-2013	Sun	1357	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	17-2-2013	Sun	1357	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	17-2-2013	Sun	1359	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	17-2-2013	Sun	1738	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	17-2-2013	Sun	1738	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	17-2-2013	Sun	1740	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	17-2-2013	Sun	1742	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	17-2-2013	Sun	1742	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	17-2-2013	Sun	1746	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	4225	17-2-2013	Sun	1931	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	17-2-2013	Sun	1931	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	17-2-2013	Sun	1933	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	17-2-2013	Sun	1935	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	17-2-2013	Sun	1935	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	17-2-2013	Sun	1937	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4474	17-2-2013	Sun	1939	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	3797	17-2-2013	Sun	2000	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	17-2-2013	Sun	2000	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4225	17-2-2013	Sun	2156	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	17-2-2013	Sun	2156	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	17-2-2013	Sun	2158	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3330	17-2-2013	Sun	2202	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	17-2-2013	Sun	2220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	17-2-2013	Sun	2220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4474	17-2-2013	Sun	2230	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	7602	17-2-2013	Sun	2233	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	8789	18-2-2013	Mon	0047	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	7582	18-2-2013	Mon	0445	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	18-2-2013	Mon	0445	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	5500	18-2-2013	Mon	1226	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4225	18-2-2013	Mon	1226	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	7607	18-2-2013	Mon	1228	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	18-2-2013	Mon	1230	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	18-2-2013	Mon	1230	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5230	18-2-2013	Mon	1233	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	18-2-2013	Mon	1235	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	18-2-2013	Mon	1511	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4225	18-2-2013	Mon	1511	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	7607	18-2-2013	Mon	1513	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	18-2-2013	Mon	1513	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3797	18-2-2013	Mon	1515	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	18-2-2013	Mon	1515	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	18-2-2013	Mon	1517	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	18-2-2013	Mon	1518	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	18-2-2013	Mon	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //7840	CW	(JPL)
M89	6840	18-2-2013	Mon	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5500	18-2-2013	Mon	1803	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4225	18-2-2013	Mon	1803	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	7607	18-2-2013	Mon	1805	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	18-2-2013	Mon	1805	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	4512	18-2-2013	Mon	1807	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	18-2-2013	Mon	1807	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5230	18-2-2013	Mon	1809	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	18-2-2013	Mon	1811	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	18-2-2013	Mon	2020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //7840	CW	(JPL)
M89	6840	18-2-2013	Mon	2020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5500	18-2-2013	Mon	2025	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4225	18-2-2013	Mon	2025	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	18-2-2013	Mon	2026	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	18-2-2013	Mon	2026	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3797	18-2-2013	Mon	2028	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	18-2-2013	Mon	2028	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	18-2-2013	Mon	2029	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	18-2-2013	Mon	2140	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4225	18-2-2013	Mon	2140	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	3725	18-2-2013	Mon	2142	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	18-2-2013	Mon	2142	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	4512	18-2-2013	Mon	2144	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	18-2-2013	Mon	2144	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5230	18-2-2013	Mon	2146	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	18-2-2013	Mon	2146	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5320	CW	(JPL)
M89	3330	18-2-2013	Mon	2148	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	18-2-2013	Mon	2201	In tfc: T576 TN5A 7UA7 5T7D DU55 5U3A (ContÆd) = UADN AR	CW	(JPL)
M89	5500	19-2-2013	Tue	1156	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4225	19-2-2013	Tue	1156	QVB in tfc: MSG NR 1053 155230219 1930 K K = AT53 A55A 3TUA NAN3 TKK AI6 AS ..(Silent 1200z)	CW	(JPL)
M89	7607	19-2-2013	Tue	1210	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	19-2-2013	Tue	1212	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	19-2-2013	Tue	1212	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	19-2-2013	Tue	1214	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5801	19-2-2013	Tue	1216	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4860	19-2-2013	Tue	1220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	19-2-2013	Tue	1220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5801	19-2-2013	Tue	1228	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	19-2-2013	Tue	1228	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	4860	19-2-2013	Tue	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	19-2-2013	Tue	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5500	19-2-2013	Tue	1526	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	19-2-2013	Tue	1527	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	19-2-2013	Tue	1529	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	19-2-2013	Tue	1529	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	19-2-2013	Tue	1532	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	19-2-2013	Tue	1743	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	19-2-2013	Tue	1745	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	19-2-2013	Tue	1747	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	19-2-2013	Tue	1747	V H2FL (x3) DE DRV8 (x2) (Cont'd) //451	CW	(JPL)
M89	3642	19-2-2013	Tue	1749	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	19-2-2013	Tue	1751	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	19-2-2013	Tue	1931	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	19-2-2013	Tue	1933	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	19-2-2013	Tue	1935	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	19-2-2013	Tue	1935	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	19-2-2013	Tue	1937	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	19-2-2013	Tue	2039	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	19-2-2013	Tue	2041	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	19-2-2013	Tue	2042	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	19-2-2013	Tue	2042	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	19-2-2013	Tue	2044	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3624	CW	(JPL)
M89	3642	19-2-2013	Tue	2044	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3330	19-2-2013	Tue	2046	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	19-2-2013	Tue	2203	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4590	19-2-2013	Tue	2205	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	19-2-2013	Tue	2207	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	19-2-2013	Tue	2207	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	19-2-2013	Tue	2209	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	19-2-2013	Tue	2209	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3624	CW	(JPL)
M89	3330	19-2-2013	Tue	2211	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	19-2-2013	Tue	2220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	19-2-2013	Tue	2220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	7582	20-2-2013	Wed	0129	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)

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M89	8110	20-2-2013	Wed	0129	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10779	20-2-2013	Wed	0131	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	8040	20-2-2013	Wed	0133	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	6773	20-2-2013	Wed	0133	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	3330	20-2-2013	Wed	0138	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	20-2-2013	Wed	1202	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	20-2-2013	Wed	1202	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	7607	20-2-2013	Wed	1205	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	20-2-2013	Wed	1207	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	20-2-2013	Wed	1207	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10180	20-2-2013	Wed	1209	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4860	20-2-2013	Wed	1220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	20-2-2013	Wed	1220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	5500	20-2-2013	Wed	1316	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	20-2-2013	Wed	1316	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4225	20-2-2013	Wed	1317	In tfc: RPT ..N 5 K. //A WA K K //B (Both stations on this freq)	CW	(JPL)
M89	3725	20-2-2013	Wed	1328	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	20-2-2013	Wed	1330	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	20-2-2013	Wed	1330	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	20-2-2013	Wed	1332	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	20-2-2013	Wed	1636	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	20-2-2013	Wed	1636	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	20-2-2013	Wed	1638	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	20-2-2013	Wed	1640	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	20-2-2013	Wed	1640	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	20-2-2013	Wed	1642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	20-2-2013	Wed	1644	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4225	20-2-2013	Wed	1834	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	20-2-2013	Wed	1834	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	20-2-2013	Wed	1836	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	20-2-2013	Wed	1838	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	20-2-2013	Wed	1838	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	20-2-2013	Wed	1841	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	20-2-2013	Wed	1843	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	20-2-2013	Wed	1956	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	3725	20-2-2013	Wed	1959	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	20-2-2013	Wed	2000	DRV8 in tfc: UGT COMM BT 750/5269/5979/02/21/0430/993/A/91/31 AR	CW	(JPL)
M89	4512	20-2-2013	Wed	2000	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) //3797	CW	(JPL)
M89	3642	20-2-2013	Wed	2004	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4225	20-2-2013	Wed	2004	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	20-2-2013	Wed	2004	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3330	20-2-2013	Wed	2006	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3725	20-2-2013	Wed	2207	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	20-2-2013	Wed	2208	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	20-2-2013	Wed	2208	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	20-2-2013	Wed	2210	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	20-2-2013	Wed	2212	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	20-2-2013	Wed	2220	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)
M89	4512	20-2-2013	Wed	2225	DRV8 in tfc: TN55 5.DD A6UA A.A5 34D6 UD47 753N (ContÆd) AR	CW	(JPL)
M89	4225	21-2-2013	Thu	1242	V 7NPE (x3) DE QV5B (x2) (Cont'd) /5500	CW	(JPL)
M89	5500	21-2-2013	Thu	1242	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	21-2-2013	Thu	1244	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	21-2-2013	Thu	1246	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)

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M89	3797	21-2-2013	Thu	1246	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	21-2-2013	Thu	1249	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4512	21-2-2013	Thu	1438	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	21-2-2013	Thu	1438	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4225	21-2-2013	Thu	1440	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	21-2-2013	Thu	1440	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	21-2-2013	Thu	1446	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5230	21-2-2013	Thu	1448	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	21-2-2013	Thu	1450	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	21-2-2013	Thu	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	21-2-2013	Thu	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	5500	21-2-2013	Thu	1658	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	21-2-2013	Thu	1658	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	21-2-2013	Thu	1700	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	21-2-2013	Thu	1702	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	21-2-2013	Thu	1702	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	21-2-2013	Thu	1704	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	21-2-2013	Thu	1704	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3330	21-2-2013	Thu	1706	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	21-2-2013	Thu	1719	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	21-2-2013	Thu	1719	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4225	21-2-2013	Thu	2029	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	21-2-2013	Thu	2029	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	21-2-2013	Thu	2031	V WITN (x3) DE GNXG (x2) (Cont'd) //4590	CW	(JPL)
M89	4590	21-2-2013	Thu	2031	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	4512	21-2-2013	Thu	2033	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	21-2-2013	Thu	2033	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	21-2-2013	Thu	2035	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	21-2-2013	Thu	2035	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	21-2-2013	Thu	2037	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	8110	22-2-2013	Fri	0105	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	22-2-2013	Fri	0105	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	10779	22-2-2013	Fri	0107	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	8789	22-2-2013	Fri	0107	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	6773	22-2-2013	Fri	0110	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	5588	22-2-2013	Fri	0114	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5588	22-2-2013	Fri	0114	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	22-2-2013	Fri	0120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	10640	22-2-2013	Fri	0120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	10640	22-2-2013	Fri	0120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	22-2-2013	Fri	0120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	7602	22-2-2013	Fri	0125	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	8110	22-2-2013	Fri	0330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	22-2-2013	Fri	0330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	22-2-2013	Fri	0330	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10779	22-2-2013	Fri	0332	V WITN (x3) DE GNXG (x2) (Cont'd) //8789	CW	(JPL)
M89	8789	22-2-2013	Fri	0332	V WITN (x3) DE GNXG (x2) (Cont'd) //10779	CW	(JPL)
M89	7582	22-2-2013	Fri	1109	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	22-2-2013	Fri	1109	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7607	22-2-2013	Fri	1111	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	22-2-2013	Fri	1113	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	22-2-2013	Fri	1113	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	10108	22-2-2013	Fri	1115	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	10108	22-2-2013	Fri	1115	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5801	22-2-2013	Fri	1115	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	5801	22-2-2013	Fri	1115	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	3300	22-2-2013	Fri	1117	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	22-2-2013	Fri	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	22-2-2013	Fri	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	22-2-2013	Fri	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	8110	22-2-2013	Fri	1310	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	22-2-2013	Fri	1310	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	3725	22-2-2013	Fri	1312	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	22-2-2013	Fri	1312	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	22-2-2013	Fri	1312	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3797	22-2-2013	Fri	1314	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	22-2-2013	Fri	1314	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4512	22-2-2013	Fri	1314	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	22-2-2013	Fri	1316	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3642	22-2-2013	Fri	1316	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3300	22-2-2013	Fri	1318	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	22-2-2013	Fri	1320	VVV (x3) Q2M DE NYZ (x2) QSA ? K	CW	(JPL)
M89	7582	22-2-2013	Fri	1816	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110 Very unusual that QV5B did not change from day to night freqs.	CW	(JPL)
M89	8110	22-2-2013	Fri	1816	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	4860	22-2-2013	Fri	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	22-2-2013	Fri	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3300	22-2-2013	Fri	1925	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3642	22-2-2013	Fri	1927	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4512	22-2-2013	Fri	1929	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	22-2-2013	Fri	1929	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3725	22-2-2013	Fri	1931	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	8110	22-2-2013	Fri	1932	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	22-2-2013	Fri	1932	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	4474	22-2-2013	Fri	1939	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	4474	22-2-2013	Fri	2252	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	3642	22-2-2013	Fri	2254	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	22-2-2013	Fri	2254	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3725	22-2-2013	Fri	2258	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	22-2-2013	Fri	2300	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	6840	23-2-2013	Sat	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	10640	23-2-2013	Sat	1020	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4225	23-2-2013	Sat	1025	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	23-2-2013	Sat	1025	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	10779	23-2-2013	Sat	1027	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	23-2-2013	Sat	1029	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	23-2-2013	Sat	1029	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	10180	23-2-2013	Sat	1032	2A7D in tfc: 656U ... (mostly unreadable)	CW	(JPL)
M89	3330	23-2-2013	Sat	1039	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	6840	23-2-2013	Sat	1320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	23-2-2013	Sat	1320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	4225	23-2-2013	Sat	1325	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	23-2-2013	Sat	1325	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	10779	23-2-2013	Sat	1327	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	23-2-2013	Sat	1329	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	23-2-2013	Sat	1329	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	10180	23-2-2013	Sat	1331	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	23-2-2013	Sat	1333	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	5500	23-2-2013	Sat	1737	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	23-2-2013	Sat	1737	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	23-2-2013	Sat	1739	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	23-2-2013	Sat	1741	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	3797	23-2-2013	Sat	1741	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	23-2-2013	Sat	1743	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	5500	23-2-2013	Sat	1838	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	23-2-2013	Sat	1838	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	23-2-2013	Sat	1840	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	23-2-2013	Sat	1842	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	23-2-2013	Sat	1842	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	23-2-2013	Sat	1844	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	23-2-2013	Sat	1846	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	6840	23-2-2013	Sat	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	23-2-2013	Sat	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	5500	23-2-2013	Sat	2027	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	3725	23-2-2013	Sat	2029	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3642	23-2-2013	Sat	2031	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	7602	23-2-2013	Sat	2031	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3797	23-2-2013	Sat	2033	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	23-2-2013	Sat	2033	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3330	23-2-2013	Sat	2034	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	5801	24-2-2013	Sun	1203	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10180	24-2-2013	Sun	1203	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5500	24-2-2013	Sun	1318	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	4860	24-2-2013	Sun	1320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	24-2-2013	Sun	1320	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3725	24-2-2013	Sun	1326	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	24-2-2013	Sun	1328	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	24-2-2013	Sun	1328	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	24-2-2013	Sun	1330	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	24-2-2013	Sun	1330	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	24-2-2013	Sun	1332	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	7582	24-2-2013	Sun	1435	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	24-2-2013	Sun	1435	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	3725	24-2-2013	Sun	1438	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	24-2-2013	Sun	1440	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	24-2-2013	Sun	1440	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	24-2-2013	Sun	1442	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	24-2-2013	Sun	1442	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3330	24-2-2013	Sun	1444	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	4225	24-2-2013	Sun	1650	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	24-2-2013	Sun	1650	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	24-2-2013	Sun	1652	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	24-2-2013	Sun	1654	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	24-2-2013	Sun	1654	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5230	24-2-2013	Sun	1656	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	24-2-2013	Sun	1656	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3330	24-2-2013	Sun	1658	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	5500	24-2-2013	Sun	1859	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	24-2-2013	Sun	1859	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	24-2-2013	Sun	1901	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	24-2-2013	Sun	1903	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	24-2-2013	Sun	1903	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	24-2-2013	Sun	1905	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	24-2-2013	Sun	1905	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	24-2-2013	Sun	1907	V MW3D (x3) DE 2SLC (x2)	CW	(JPL)
M89	6840	24-2-2013	Sun	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	24-2-2013	Sun	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	5230	24-2-2013	Sun	2324	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	7582	25-2-2013	Mon	0504	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	8110	25-2-2013	Mon	0504	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	8789	25-2-2013	Mon	0506	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	6840	25-2-2013	Mon	0520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //10640	CW	(JPL)
M89	10640	25-2-2013	Mon	0520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4225	25-2-2013	Mon	1048	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	25-2-2013	Mon	1048	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	8789	25-2-2013	Mon	1050	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	25-2-2013	Mon	1052	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	25-2-2013	Mon	1052	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10180	25-2-2013	Mon	1054	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	5588	25-2-2013	Mon	1056	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	25-2-2013	Mon	1057	V MW3D (x3) DE 2SLC (x2) At 1057z switched from day to night frequency.	CW	(JPL)
M89	4225	25-2-2013	Mon	1633	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	25-2-2013	Mon	1633	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	25-2-2013	Mon	1635	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	25-2-2013	Mon	1637	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	3642	25-2-2013	Mon	1639	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	25-2-2013	Mon	1639	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	25-2-2013	Mon	1641	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	25-2-2013	Mon	1851	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	25-2-2013	Mon	1851	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	25-2-2013	Mon	1853	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	25-2-2013	Mon	1855	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	3642	25-2-2013	Mon	1857	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	25-2-2013	Mon	1857	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	25-2-2013	Mon	1859	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5500	25-2-2013	Mon	2157	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	3725	25-2-2013	Mon	2159	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5230	25-2-2013	Mon	2201	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	25-2-2013	Mon	2201	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3330	25-2-2013	Mon	2203	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4225	26-2-2013	Tue	1210	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	26-2-2013	Tue	1210	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	26-2-2013	Tue	1212	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	26-2-2013	Tue	1214	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	26-2-2013	Tue	1214	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3330	26-2-2013	Tue	1216	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	26-2-2013	Tue	1220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	26-2-2013	Tue	1220	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3725	26-2-2013	Tue	1225	GNXG in tfc: 4756 AN45 7ND4 A6TN 3A45 A47N 6DN7 76UN (ContÆd). AR HR WK NR .6 V WITN (x3) DE GNXG	CW	(JPL)
M89	6840	26-2-2013	Tue	1620	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	26-2-2013	Tue	1620	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	3330	26-2-2013	Tue	1625	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3642	26-2-2013	Tue	1626	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3797	26-2-2013	Tue	1627	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	26-2-2013	Tue	1627	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3725	26-2-2013	Tue	1628	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5500	26-2-2013	Tue	1630	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	26-2-2013	Tue	1630	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	26-2-2013	Tue	1731	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	26-2-2013	Tue	1731	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3725	26-2-2013	Tue	1733	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	4512	26-2-2013	Tue	1735	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
M89	3797	26-2-2013	Tue	1735	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	26-2-2013	Tue	1737	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	26-2-2013	Tue	1739	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4225	26-2-2013	Tue	1909	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	26-2-2013	Tue	1909	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	26-2-2013	Tue	1915	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	26-2-2013	Tue	1917	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	26-2-2013	Tue	1917	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	26-2-2013	Tue	1918	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	26-2-2013	Tue	1919	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	26-2-2013	Tue	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	26-2-2013	Tue	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4225	26-2-2013	Tue	2110	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	26-2-2013	Tue	2110	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3725	26-2-2013	Tue	2112	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	3797	26-2-2013	Tue	2114	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	26-2-2013	Tue	2114	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	26-2-2013	Tue	2116	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3330	26-2-2013	Tue	2118	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	26-2-2013	Tue	2120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	26-2-2013	Tue	2120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	8110	27-2-2013	Wed	0238	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	7582	27-2-2013	Wed	0238	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	10779	27-2-2013	Wed	0240	V WITN (x3) DE GNXG (x2) (Cont'd)	CW	(JPL)
M89	5588	27-2-2013	Wed	0243	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5801	27-2-2013	Wed	0247	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4225	27-2-2013	Wed	1111	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	27-2-2013	Wed	1111	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	7607	27-2-2013	Wed	1113	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	27-2-2013	Wed	1113	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	4512	27-2-2013	Wed	1115	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	27-2-2013	Wed	1115	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10180	27-2-2013	Wed	1117	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5801	27-2-2013	Wed	1117	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	3330	27-2-2013	Wed	1119	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4860	27-2-2013	Wed	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	27-2-2013	Wed	1120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4225	27-2-2013	Wed	1428	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	5500	27-2-2013	Wed	1428	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	7607	27-2-2013	Wed	1430	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	27-2-2013	Wed	1430	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	3797	27-2-2013	Wed	1432	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	27-2-2013	Wed	1432	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	27-2-2013	Wed	1434	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	27-2-2013	Wed	1434	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	27-2-2013	Wed	1435	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	27-2-2013	Wed	1515	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5230	27-2-2013	Wed	1517	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	27-2-2013	Wed	1517	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3725	27-2-2013	Wed	1518	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	27-2-2013	Wed	1518	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	5500	27-2-2013	Wed	1519	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	4225	27-2-2013	Wed	1519	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	4860	27-2-2013	Wed	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	6840	27-2-2013	Wed	1520	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4225	27-2-2013	Wed	1749	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)

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M89	3725	27-2-2013	Wed	1751	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	7607	27-2-2013	Wed	1751	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	4512	27-2-2013	Wed	1753	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	27-2-2013	Wed	1753	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3642	27-2-2013	Wed	1755	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	27-2-2013	Wed	1755	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	27-2-2013	Wed	1757	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3330	27-2-2013	Wed	1801	VV VV .. COQ3AE 7810 TO 5254/1580. UGT COMMS BT 39169/5254/0300/117NR/7810 AR. AR = = 39169/5254/0300/117NR/7810 AR AR	CW	(JPL)
M89	4225	27-2-2013	Wed	1918	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	7607	27-2-2013	Wed	1919	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	27-2-2013	Wed	1919	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	6840	27-2-2013	Wed	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	27-2-2013	Wed	1920	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
M89	3797	27-2-2013	Wed	1921	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4512	27-2-2013	Wed	1921	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3642	27-2-2013	Wed	1925	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5230	27-2-2013	Wed	1925	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3330	27-2-2013	Wed	1927	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4225	27-2-2013	Wed	2109	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	7607	27-2-2013	Wed	2111	V WITN (x3) DE GNXG (x2) (Cont'd) //3725	CW	(JPL)
M89	3725	27-2-2013	Wed	2111	V WITN (x3) DE GNXG (x2) (Cont'd) //7607	CW	(JPL)
M89	4512	27-2-2013	Wed	2114	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3797	27-2-2013	Wed	2114	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5230	27-2-2013	Wed	2116	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3642	27-2-2013	Wed	2116	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	3330	27-2-2013	Wed	2118	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6840	27-2-2013	Wed	2120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //4860	CW	(JPL)
M89	4860	27-2-2013	Wed	2120	VVV (x3) Q2M DE NYZ (x2) QSA ? K //6840	CW	(JPL)
MX	6917.5	31-1-2013		1354	Beacon "L"	CW	(AHus)
MX	8494.8	2-2-2013	Sat	1106	Beacon "P"	CW	(AB)
MX	8487.8	2-2-2013	Sat	1106	Beacon "L"	CW	(AB)
MX	8495	2-2-2013	Sat	1106	Beacon "C"	CW	(AB)
MX	20047.7	2-2-2013	Sat	1106	Beacon "D"	CW	(AB)
MX	16331.7	2-2-2013	Sat	1106	Beacon "D"	CW	(AB)
MX	10871.8	2-2-2013	Sat	1106	Beacon "P"	CW	(AB)
MX	13527.7	2-2-2013	Sat	1106	Beacon "D"	CW	(AB)
MX	13527.8	2-2-2013	Sat	1106	Beacon "P"	CW	(AB)
MX	5153.8	2-2-2013	Sat	1106	Beacon "P"	CW	(AB)
MX	6917.5	2-2-2013	Sat	1106	Beacon "L"	CW	(AB)
MX	10872	2-2-2013	Sat	1106	Beacon "C"	CW	(AB)
MX	20047.9	2-2-2013	Sat	1106	Beacon "S"	CW	(AB)
MX	4557.7	2-2-2013	Sat	2033	Beacon "D"	CW	(AB)
MX	4557.8	2-2-2013	Sat	2033	Beacon "P"	CW	(AB)
MX	3593.7	2-2-2013	Sat	2033	Beacon "D"	CW	(AB)
MX	4557.9	2-2-2013	Sat	2033	Beacon "S"	CW	(AB)
MX	6917.5	2-2-2013	Sat	2033	Beacon "L"	CW	(AB)
MX	8494.7	2-2-2013	Sat	2033	Beacon "D"	CW	(AB)
MX	5153.7	2-2-2013	Sat	2033	Beacon "D"	CW	(AB)
MX	7038.8	2-2-2013	Sat	2033	Beacon "P"	CW	(AB)
MX	7038.7	2-2-2013	Sat	2033	Beacon "D"	CW	(AB)
MX	8497.8	4-2-2013	Mon	0037	Beacon "D" Odessa/Sevastapol	CW	(LG2)
MX	16331.7	5-2-2013	Tue	0958	Beacon "D" Odessa/Sevastapol	CW	(LG2)
MX	5153.7	6-2-2013	Wed	2128	Russian Navy "D" Marker	CW	(TR2)
MX	4557.8	8-2-2013	Fri	2152	Beacon "P"	CW	(AB)

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MX	3594.7	8-2-2013	Fri	2152	Beacon "D"	CW	(AB)
MX	4557.9	8-2-2013	Fri	2152	Beacon "S"	CW	(AB)
MX	4557.7	8-2-2013	Fri	2152	Beacon "D"	CW	(AB)
MX	16332.3	9-2-2013	Sat	0727	Beacon "K"	CW	(AB-HK)
MX	20048.2	9-2-2013	Sat	0727	Beacon "F"	CW	(AB-HK)
MX	7038.7	9-2-2013	Sat	2256	Russian Navy Beacon "D" Odessa/Sevastapol	CW	(LG2)
MX	5154.3	10-2-2013	Sun	1600	Beacon "K"	CW	(AB-HK)
MX	5154.4	10-2-2013	Sun	1600	Beacon "M""	CW	(AB-HK)
MX	8495.3	10-2-2013	Sun	1600	Beacon "K"	CW	(AB-HK)
MX	7039.2	10-2-2013	Sun	1600	Beacon "F"	CW	(AB-HK)
MX	7039.4	10-2-2013	Sun	1600	Beacon "M"	CW	(AB-HK)
MX	7039.3	10-2-2013	Sun	1600	Beacon "K"	CW	(AB-HK)
MX	3658	11-2-2013	Mon	2202	Beacon "V"	CW	(AB)
MX	5154	11-2-2013	Mon	2229	Russian Navy Beacon "D" Odessa/Sevastapol	CW	(LG2)
MX	3658	12-2-2013	Tue	2036	Beacon "V"	CW	(AB)
MX	5153.7	16-2-2013	Sat	2030	Russian Navy. Marker "D"	CW	(TR2)
MX	3593.7	18-2-2013	Mon	2242	Russian Navy Beacon "D" Odessa/Sevastapol	CW	(LG2)
MX	3658	19-2-2013	Tue	2028	Beacon "V"	CW	(AB)
MX	16332.3	23-2-2013	Sat	0130	Beacon "K"	CW	(Dan)
MX	13528.4	23-2-2013	Sat	0812	Beacon "M"	CW	(AB-HK)
MX	10872.4	23-2-2013	Sat	0812	Beacon "M"	CW	(AB-HK)
MX	16331.9	23-2-2013	Sat	0833	Beacon "S"	CW	(AB)
MX	13527.7	23-2-2013	Sat	0833	Beacon "D"	CW	(AB)
MX	20047.9	23-2-2013	Sat	0833	Beacon "S"	CW	(AB)
MX	13528	23-2-2013	Sat	0833	Beacon "C"	CW	(AB)
MX	16331.7	23-2-2013	Sat	0833	Beacon "D"	CW	(AB)
MX	10871.9	23-2-2013	Sat	0833	Beacon "S"	CW	(AB)
MX	10871.8	23-2-2013	Sat	0833	Beacon "P"	CW	(AB)
MX	10871.7	23-2-2013	Sat	0833	Beacon "D"	CW	(AB)
MX	8494.8	23-2-2013	Sat	0833	Beacon "P"	CW	(AB)
MX	8495	23-2-2013	Sat	0833	Beacon "C"	CW	(AB)
MX	7038.7	23-2-2013	Sat	0833	Beacon "D"	CW	(AB)
MX	20047.7	23-2-2013	Sat	0833	Beacon "D"	CW	(AB)
MX	7038.9	23-2-2013	Sat	0833	Beacon "S"	CW	(AB)
MX	10872	23-2-2013	Sat	0833	Beacon "C"	CW	(AB)
MX	13528.4	23-2-2013	Sat	1620	Beacon "M"	CW	(AB-HK)
MX	5154.3	23-2-2013	Sat	1620	Beacon "K"	CW	(AB-HK)
MX	7039.4	23-2-2013	Sat	1620	Beacon "M"	CW	(AB-HK)
MX	7039.3	23-2-2013	Sat	1620	Beacon "K"	CW	(AB-HK)
MX	13528.2	23-2-2013	Sat	1620	Beacon "F"	CW	(AB-HK)
MX	16332.2	23-2-2013	Sat	1620	Beacon "F"	CW	(AB-HK)
MX	16332.4	23-2-2013	Sat	1620	Beacon "M"	CW	(AB-HK)
MX	10871.7	24-2-2013	Sun	0807	Beacon "D"	CW	(AB)
MX	10872	24-2-2013	Sun	0807	Beacon "C"	CW	(AB)
MX	8495	24-2-2013	Sun	0807	Beacon "C"	CW	(AB)
MX	8494.8	24-2-2013	Sun	0807	Beacon "P"	CW	(AB)
MX	10871.8	24-2-2013	Sun	0807	Beacon "P"	CW	(AB)
MX	13527.8	24-2-2013	Sun	1524	Beacon "P"	CW	(AB)
MX	5153.9	24-2-2013	Sun	1526	Beacon "S"	CW	(AB)
MX	7038.9	24-2-2013	Sun	1526	Beacon "S"	CW	(AB)
MX	3658	24-2-2013	Sun	2014	Beacon "V"	CW	(AB)
MX	3593.7	24-2-2013	Sun	2239	Beacon "D"	CW	(MPJ)
MX	3593.9	24-2-2013	Sun	2239	Beacon "S" Severomorsk	CW	(MPJ)
MX	6762	26-2-2013	Tue	1859	Beacon "V"	CW	(FMB)
MX	5153.7	27-2-2013	Wed	2213	Beacon "D"	CW	(MPJ)
MX	5153.9	27-2-2013	Wed	2214	Beacon "S" Severomorsk	CW	(MPJ)

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MX	16332	28-2-2013	Thu	1142	Beacon "C" Moscow	CW	(LG2)
RAv	8131	5-2-2013	Tue	1054	Russian Air Force	USB	(TR2)
RAv	3331	5-2-2013	Tue	1844	Russian Air Force	USB	(TR2)
RAv	11354	6-2-2013	Wed	0853	Russian Air Force - Proselok??	USB	(TR2)
RAv	8131	7-2-2013	Thu	1549	Russian Air Force. Balans calls traffic	USB	(TR2)
RAv	8131	14-2-2013	Thu	1502	Russian Air Force. Katolik w/acft 58??? (garbled xmitter) w/probable departure msg	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1509	Russian Air Force. Katolik w/acft 57974 w/formatted msg. Both stns have very bad xmitters. At 1630 again w/Katolik in position report	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1510	Russian Air Force. Acft 57974 clg Katolik & Balans w/no response. Katolik finally responds and advises that he reads 57974 4/4	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1524	Russian Air Force. Katolik radio check w/acft 58135. Acft 105 also mistakenly answers	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1707	Russian Air Force. Katolik w/acft 58178 w/formatted msg.	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1713	Russian Air Force. Acft (callsign garbled) clg Balans w/no response. Then calls Katolik w/no response. Acft xmitter badly overmodulated.	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1720	Russian Air Force. Katolik w/acft 78105 w/formatted msg. At 1835 again w/Katolik w/formatted msg	USB	(RP-MD)
RAv	11354	14-2-2013	Thu	1732	Russian Air Force. Acft 52440 clg Priboy, Novator & Kraket w/no repsonse	USB	(RP-MD)
RAv	6685	14-2-2013	Thu	1802	Russian Air Force. Korsar (Russian AF Pskov) clg unid stn w/no response	USB	(RP-MD)
RAv	6685	14-2-2013	Thu	1804	Russian Air Force. Davelenie (Russian AF Taganrog) clg Proselok (Russian AF Bryansk) w/no response	USB	(RP-MD)
RAv	8131	14-2-2013	Thu	1856	Russian Air Force. Katolik w/acft 78158 w/formatted msg	USB	(RP-MD)
RAv	6885	19-2-2013	Tue	1200	Korsar (Russian AF, Pskov) w/readability checks w/Davelenie (Russian AF, Taganrog); Proselok (Russian AF, Bryansk) & Klarenist (Russian AF, Tver)	USB	(RP-MD)
RAv	8131	19-2-2013	Tue	1222	Balans (unid Russian AF) clg 78162 no response	USB	(RP-MD)
RAv	6885	19-2-2013	Tue	1257	Acft 58817 w/Daveline (not heard)	USB	(RP-MD)
RAv	8131	19-2-2013	Tue	1535	Acft 57703 clg Katolik (unid Russian AF) w/no response	USB	(RP-MD)
RAv	6885	19-2-2013	Tue	1802	Polis (Russian AF Orenburg) w/Karsar & Davlenie in radio checks	USB	(RP-MD)
RAv	6885	19-2-2013	Tue	1805	Acft 78764 clg Korsar no response	USB	(RP-MD)
RAv	6685	20-2-2013	Wed	1230	Korsar (Russian AF, Pskov) w/ Davlenie (Russian AF Tagan-rog), Proselok (Russian AF, Bryansk) and Klarenist (Russian AF, Tver) in radio checks.	USB	(RP-MD)
RAv	6885	20-2-2013	Wed	1417	Korsar: 1417 USB w/82037? w/flt status report	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1224	Russian Air Force: Korsar w/acft 52934	USB	(RP-MD)
RAv	6585	21-2-2013	Thu	1225	Russian Air Force: Korsar w/Klarenetist	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1226	Russian Air Force: Korsar w/acft 78776	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1228	Russian Air Force: Korsar w/acft 78810	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1249	Russian Air Force: Korsar w/acft 78?13	USB	(RP-MD)
RAv	11354	21-2-2013	Thu	1311	Russian Air Force: Priboy w/acft 52441 who reports depar-ture from Chernyakhovsk at 1300 MSK & ETA at unreadable location of 1655 MSK	USB	(RP-MD)
RAv	6885	21-2-2013	Thu	1319	Russian Air Force: Korsar w/acft 76886. Seems to be some confusion as Korsar also calls him 76786	USB	(RP-MD)
RAv	6885	21-2-2013	Thu	1322	Russian Air Force: Korsar w/acft 76231 who reports depar-ture from Chelyabinsk. Korsar also calls him 76531	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1328	Russian Air Force: Korsar w/acft 76669 who reports depar-ture from Ulyanovsk West	USB	(RP-MD)
RAv	11354	21-2-2013	Thu	1406	Russian Air Force: Novator & Priboy w/acft 52410 (Navy AN-26) w/flt route status	USB	(RP-MD)
RAv	6885	21-2-2013	Thu	1717	Russian Air Force: Korsar w/acft 76554 who advises they are under the control of Saratov	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1821	Russian Air Force: Korsar w/acft 76554 who report landing	USB	(RP-MD)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
					at Orenburg at 2219 MSK		
RAv	6885	21-2-2013	Thu	1834	Russian Air Force: Korsar w/acft 78834 who reports departure from Ivanovo and ETA possibly Tver	USB	(RP-MD)
RAv	6885	21-2-2013	Thu	1835	Russian Air Force: Korsar w/acft 76613 who reports landing at (sounds like Kanatni?).	USB	(RP-MD)
RAv	6885	21-2-2013	Thu	1900	Russian Air Force: Davlenie w/acft 76726	USB	(RP-MD)
RAv	6885	21-2-2013	Thu	1903	Russian Air Force: Acft 7676 clg Karsar, Davlenie, Polis w/no response, Karsar finally responds. Acft 76769 reports departure from Chelyabinsk at 2235 MSK and ETA landing at Ivanova North	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1910	Russian Air Force: Karsar w/acft 78834 who reports landing at Tver at 2310 MSK	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1912	Russian Air Force: Karsar w/acft 78757 who reports departure from Chelyabinsk at 2240 MSK and ETA Kanatni of 2233 MSK	USB	(RP-MD)
RAv	6685	21-2-2013	Thu	1926	Russian Air Force: Karsar w/acft 76772 who reports departure from Tver at 2115 MSK & ETA at Ekaterinburg/Koltsovo of 0115 MSK	USB	(RP-MD)
RAv	6685	23-2-2013	Sat	2111	Russian Air Force. Korsar clg 78757 / Landed Kanatniy (Ivanovo North) at 01:10	USB	(TR2)
RAv	6685	26-2-2013	Tue	0226	Korsar (Russian AF, Pskov) w/acft 76772 who reports departure from Koltsovo at 0515 MSK & ETA Dushanbe of 0944 MSK	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	0839	Russian Air Force. Aircraft wkg with Katolik and Balans.	USB	(ASh)
RAv	6685	26-2-2013	Tue	1212	Korsar w/acft 86725 (weak-unreadable). Korsar has trouble hearing this acft	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	1348	Russian Air Force. Aircraft 78169-57978 wkg with Katolik	USB	(ASh)
RAv	8131	26-2-2013	Tue	1411	Russian Air Force. Aircraft 78169-57978 and 78162-57975 wkg with Katolik	USB	(ASh)
RAv	8131	26-2-2013	Tue	1552	Acft 78169 w/Katolik (unid Russian AF). Katolik badly over-modulated--hard to read. Acft 78169 also w/acft (78)199	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	1618	Katolik w/acft 57975 w/formatted msg.	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	1620	Katolik w/acft 78762 w/formatted msg.Acft 78762 acts as relay between Katolik & acft 57975 & advises that Katolik QSLs his msg	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	1626	Katolik w/acft 57978 w/formatted msg	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	1639	Acft 57946 w/acft 57978 relaying formatted msgs for forwarding on to Katolik. Later 57978 also relays msgs for acft 57975	USB	(RP-MD)
RAv	8131	26-2-2013	Tue	1700	Acft 57975 clg both Katolik & Balans w/no response. Acft 78162 responds and advises that Katolik cannot hear him	USB	(RP-MD)
RAv	8131	27-2-2013	Wed	1716	Russian Air Force. KATOLIK with various aircraft	USB	(TR2)
RAv	6685	28-2-2013	Thu	1200	Korsar (Russian AF, Pskov) radio check w/Proselok (Russian AF, Bryansk), Davlenie (Russian AF, Taganrog), & Polis (Russian AF, Orenburg)	USB	(RP-MD)
RAv	6885	28-2-2013	Thu	1207	Korsar w/76551 (IL-76) reporting departure from (missed) at 1540 MSK and ETA Mozdok 1720 MSK	USB	(RP-MD)
RAv	6885	28-2-2013	Thu	1309	Korsar w/76772 (not heard) w/departure from Shagol	USB	(RP-MD)
RAv	3331	28-2-2013	Thu	1840	Russian Mil.	USB	(TR2)
RMv	6943	15-2-2013	Fri	1725	Russian Mil. Ops chat	USB	(TR2)
RMv	2770	27-2-2013	Wed	2024	Russan Military. 3FG callsign with na priyom	USB ááá	(LG2)
RNAv	11354	6-2-2013	Wed	1407	Russian Nval Air wkg PRIBOJ	USB	(ML4)
RNAv	11354	14-2-2013	Thu	1300	Russian Naval Air. Priboy w/Novator reporting acft landing	USB	(RP-MD)
RNAv	11354	14-2-2013	Thu	1316	Russian Naval Air. Acft 46548 clg Novator w/no response. Changes & calls Kraket and passes departure msg. Kraket then relays msg to Priboy.	USB	(RP-MD)
RNAv	11354	14-2-2013	Thu	1410	Russian Naval Air. Acft 46548 clg Kraket & Priboy w/no response.	USB	(RP-MD)
RNAv	11354	14-2-2013	Thu	1420	Russian Naval Air. Acft 52410 clg both Priboy & Novator. Proboy responds--52410 reports departure from Ostafyevo	USB	(RP-MD)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
					and ETA destination of Kipelevo		
RNAv	11354	19-2-2013	Tue	1145	Priboy (Air Transports Central Sector, Moscow) w/acft 52436 (prob Russian Navy AN-26) who reporrts landing at Kacha at 1146. Also w/Kraket (Air Transports Western Sector,Kaliningrad)	USB	(RP-MD)
RNAv	11354	20-2-2013	Wed	1337	Priboy (Air Transports Central Sector, Moscow) w/52411 (prob Russian Navy AN-26) who report departure from poss Kipelovo at 1320 and ETA Chernyakhovsk at 1640	USB	(RP-MD)
RNAv	11354	26-2-2013	Tue	1258	Priboy (Air Transports Central Sector, Moscow) w/acft 52436 (poss Russian Navy AN-26 Severomorsk-3) who reports landing at Rostov at 1657 MSK. Priboy relays info to unid ground stn.	USB	(RP-MD)
RNAv	8816	27-2-2013	Wed	1822	52416: Russian Naval Air Transport AN-26 CURL. QTC TO RJC38 RJF94 QTO 1750 QRD XLWF XUMO QBD 5000 QRE 1935 RPT AL K	USB	(Tom)
RNAv	8816	27-2-2013	Wed	1857	52416: Russian Naval Air Transport AN-26 CURL. QTC TO RJC38 RJF94 QAY XUBK 1855 QBG 4600 QBD 3800 RPT AL K	USB	(Tom)
RNAv	8816	27-2-2013	Wed	1933	52416: Russian Naval Air Transport AN-26 CURL. QTC TO RJC38 RJF94 QQM XLWF 1932 RPT AL K	USB	(Tom)
RNAv	11354	28-2-2013	Thu	1320	Priboy (Air Transports Central Sector,Moscow) w/30721 departure from (missed) & ETA St Petesburg 1610 MSK	USB	(RP-MD)
S06	3172	2-2-2013	Sat	1930	426 426 426 00000	AM	(Topol)
S06	4784	2-2-2013	Sat	2030	857 857 857 00000	AM	(Spec)
S06	4017	2-2-2013	Sat	2130	857 857 857 00000	AM	(Spec)
S06	6845	5-2-2013	Tue	1501	in progress	AM	(ML4)
S06	3192	7-2-2013	Thu	1900	349 0	AM	(HFD)
S06	3838	11-2-2013	Mon	1905	349 0	AM	(HFD)
S06	3645	12-2-2013	Tue	1800	617 0	AM	(HFD)
S06	3838	14-2-2013	Thu	1905	349 0	AM	(HFD)
S06	3172	16-2-2013	Sat	1930	426 426 426 00000	AM	(Topol/HFD)
S06	4784	16-2-2013	Sat	2030	857 857 857 00000	AM	(Spec)
S06	4017	16-2-2013	Sat	2130	857 857 857 00000	AM	(Spec)
S06	3838	18-2-2013	Mon	1905	349 0	AM	(HFD)
S06	3838	21-2-2013	Thu	1905	349 349 349 00000	AM	(tING)
S06	5827	21-2-2013	Thu	2012	Y/L test counts	USB	(RP-MD)
S06	3172	23-2-2013	Sat	1930	426 426 426 00000	AM	(Topol)
S06	3838	25-2-2013	Mon	1905	349 349 349 00000	AM	(Q-HOL)
S06	9255	25-2-2013	Mon	1915	789 00000	USB	(FMB)
S06	9255	26-2-2013	Tue	1915	789 (R4); 902 902 86 86 94495(x2) 79165...	USB	(FMB)
S06	7631	26-2-2013	Tue	2030	(ip) 97687(x2) 14061(x2) 902 902 86 86 00000 (rpt 1915 9255 kHz)	USB	(FMB)
S06	3192	28-2-2013	Thu	1900	349 349 349 00000	AM	(Topol)
S06s	11780	1-2-2013	Fri	0930	516 924 7 46062 68672 97778 39685 30485 11171 64385 924 7 00000	USB	(Topol)
S06s	12570	1-2-2013	Fri	0940	516 924 7 46062 68672 97778 39685 30485 11171 64385 924 7 00000	USB	(Topol)
S06s	8680	2-2-2013	Sat	1200	254 910 6 12542 97525 85532 54548 77592 80417 910 6 00000	USB	(Topol)
S06s	8260	2-2-2013	Sat	1210	254 910 6 12542 97525 85532 54548 77592 80417 910 6 00000	USB	(Topol)
S06s	8420	4-2-2013	Mon	1300	831 956 7 15289 37284 65740 91098 67549 57635 65678 956 7 00000	USB	(Topol)
S06s	10635	4-2-2013	Mon	1310	831 956 7 15289 37284 65740 91098 67549 57635 65678 956 7 00000	USB	(Topol)
S06s	5250	5-2-2013	Tue	0700	374 908 5 ?????	USB	(Topol)
S06s	7410	5-2-2013	Tue	0730	427 901 5 11171 64385 82707 06123 22438 901 5 00000	USB	(Topol)
S06s	9135	5-2-2013	Tue	0810	352 974 6 88554 82045 36717 24042 75967 31670 974 6 00000	USB	(Topol)
S06s	6440	5-2-2013	Tue	1000	893 206 5 98115 ?????	USB	(Topol)

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S06s	6845	5-2-2013	Tue	1500	537 902 6 52401 63919 92699 14600 74248 48754 902 6 00000	USB	(Topol)
S06s	9170	5-2-2013	Tue	1510	537 902 6 52401 63919 92699 14600 74248 48754 902 6 00000	USB	(Topol)
S06s	12952	7-2-2013	Thu	0900	167 204 5 96632 52537 53317 06675 41736 204 5 00000	USB	(JU)
S06s	13565	7-2-2013	Thu	0910	167 204 5 96632 52537 53317 06675 41736 204 5 00000	USB	(JU)
S06s	12155	7-2-2013	Thu	1200	425 813 6 20613 29076 57605 45562 52562 53207 813 6 00000	USB	(JU)
S06s	10920	7-2-2013	Thu	1210	425 813 6 20613 29076 57605 45562 52562 53207 813 6 00000	USB	(JU)
S06s	10635	11-2-2013	Mon	1310	831 956 7 15289 37284 65740 91098 67549 67635 65678 956 7 00000	USB	(Topol)
S06s	5250	12-2-2013	Tue	0700	374 908 5 45362 18927 67891 01928 51092 908 5 00000	USB	(Topol)
S06s	7410	12-2-2013	Tue	0730	427 901 5 11171 64385 82707 06123 22438 901 5 00000	USB	(Topol)
S06s	9135	12-2-2013	Tue	0810	352 974 6 88554 82045 36717 24042 75967 31670 974 6 00000	USB	(Topol)
S06s	6845	12-2-2013	Tue	1500	537 902 6 52401 63919 92699 14600 74248 48754 906 6 00000	USB	(Topol)
S06s	9170	12-2-2013	Tue	1510	537 902 6 52401 63919 92699 14600 74248 48754 906 6 00000	USB	(Topol)
S06s	8813	15-2-2013	Fri	0610	934 521 6 16945 80744 86200 84706 ????? 61736 521 6 00000	USB	(Topol)
S06s	7150	15-2-2013	Fri	0700	196 240 5 48115 24151 51802 23807 15521 240 5 00000	USB	(Topol)
S06s	11780	15-2-2013	Fri	0930	516 894 7 52401 63919 92699 14600 74248 48754 65125 894 7 00000	USB	(Topol)
S06s	12570	15-2-2013	Fri	0940	516 894 7 52401 63919 92699 14600 74248 48754 65125 894 7 00000	USB	(Topol)
S06s	5250	19-2-2013	Tue	0700	374 581 6 46186 16945 80744 65200 84706 88280 581 6 00000	USB	(Topol)
S06s	7410	19-2-2013	Tue	0730	427 908 5 40613 77249 40686 17967 21816 908 5 00000	USB	(Topol)
S06s	9135	19-2-2013	Tue	0810	352 894 6 33796 13577 74526 46647 79302 53516 894 6 00000	USB	(Topol)
S06s	6845	19-2-2013	Tue	1500	537 984 6 67453 79806 76734 21436 78774 33101 984 6 00000	USB	(Topol)
S06s	9170	19-2-2013	Tue	1510	537 984 6 67453 79806 76734 21436 78774 33101 984 6 00000	USB	(Topol)
S06s	9260	20-2-2013	Wed	0840	328 904 5 52436 76859 10926 87337 45458 904 5 00000	USB	(AB)
S06s	11415	20-2-2013	Wed	0850	328 904 5 52436 76859 10926 87337 45458 904 5 00000	USB	(AB)
S06s	12365	20-2-2013	Wed	1000	729 486 5 78236 76248 01992 78236 23109 486 5 00000	USB	(AB)
S06s	14280	20-2-2013	Wed	1010	729 486 5 78236 76248 01992 78236 23109 486 5 00000	USB	(AB)
S06s	12952	21-2-2013	Thu	0900	167 908 5 21767 53672 11834 81022 36903 908 5 00000	USB	(Topol)
S06s	13565	21-2-2013	Thu	0910	167 908 5 21767 53672 11834 81022 36903 908 5 00000	USB	(Topol)
S06s	8812	21-2-2013	Thu	0930	314 928 5 59496 66029 44471 88253 88653 928 5 00000	USB	(Topol)
S06s	9540	21-2-2013	Thu	0940	314 928 5 59496 66029 44471 88253 88653 928 5 00000	USB	(Topol)
S06s	12155	21-2-2013	Thu	1200	425 819 6 84431 34529 20661 64688 75832 89745 819 6 00000	USB	(Topol)
S06s	10920	21-2-2013	Thu	1210	425 819 6 84431 34529 20661 64688 75832 89745 819 6 00000	USB	(Topol)
S06s	5250	26-2-2013	Tue	0700	374 ?????	USB	(Topol)
S06s	7410	26-2-2013	Tue	0730	427 908 5 40613 77249 40686 17967 21816 908 5 00000	USB	(Topol)
S06s	9136	26-2-2013	Tue	0800	352	USB	(FMB)
S06s	8116	26-2-2013	Tue	0850	471 00000	USB	(FMB)
S06s	5660	26-2-2013	Tue	1000	893 207 207 5 5 48115(x2) ...	USB	(FMB)
S06s	6845	26-2-2013	Tue	1500	537 984 6 67453 79806 76734 21436 78774 33101984 6 00000	USB	(Topol)
S06s	9170	26-2-2013	Tue	1510	537 984 6 67453 79806 76734 21436 78774 33101984 6 00000	USB	(Topol)
S06s	9260	27-2-2013	Wed	0840	328 904 5 52436 76859 10926 87337 45458 904 5 00000	USB	(Topol/FMB)
S06s	11415	27-2-2013	Wed	0850	328 904 5 52436 76859 10926 87337 45458 904 5 00000	USB	(Topol)

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S11a	7504	1-2-2013	Fri	0915	484/00	USB	(Topol)
S11a	9610	1-2-2013	Fri	1020	426/00	USB	(Topol)
S11a	6433	2-2-2013	Sat	1020	221/00	USB	(Topol/Q)
S11a	12530	4-2-2013	Mon	1015	475/00	USB	(Topol)
S11a	7504	5-2-2013	Tue	0915	484 30 89722.....99384	USB	(Topol)
S11a	9610	5-2-2013	Tue	1020	426/00	USB	(Topol)
S11a	7504	12-2-2013	Tue	0915	484/00	USB	(Topol)
S11a	9610	12-2-2013	Tue	1020	426/00	USB	(Topol)
S11a	7504	15-2-2013	Fri	0945	485 36 89564.....40644	USB	(Topol)
S11a	9610	15-2-2013	Fri	1020	426/00	USB	(Topol)
S11a	12530	18-2-2013	Mon	1015	479/30 31226 18458 80618 ... 89431 13023	USB	(Spec)
S11a	7504	19-2-2013	Tue	0915	484/00	USB	(Topol)
S11a	9610	19-2-2013	Tue	1020	426/00	USB	(Topol)
S11a	12530	21-2-2013	Thu	1015	475/00	USB	(Topol)
S11a	6433	22-2-2013	Fri	1020	221/00	USB	(tING)
S21	3323	12-2-2013	Tue	1842	323 ?????	USB	(Topol)
S28	4625	6-2-2013	Wed	0913	MDZhB 38 146 NEUMNYJ ?6 87 44 59	USB	(AB-EST)
S28	4625	7-2-2013	Thu	1321	MDZhB 15 156 METROKIN 88 59 58 14	USB	(AB/JM5)
S28	4625	7-2-2013	Thu	1354	MDZhB 58 094 TsETRARIJ 68 70 56 76	USB	(AB/JM5)
S28	4625	12-2-2013	Tue	1228	Sick buzzer breaking down	USB	(Avare)
S28	4625	13-2-2013	Wed	1330	MDZhB 24 529 METIATsIL 88 51 82 22	USB	(AB-EST)
S28	4625	13-2-2013	Wed	1338	MDZhB 28 493 PETELShChIK 30 29 20 09	USB	(AB-EST)
S28	4625	13-2-2013	Wed	1340	MDZhB 67 931 NETVERDYJ 28 21 06 48	USB	(AB-EST)
S28	4625	13-2-2013	Wed	1350	MDZhB 61 030 PETALIT 24 77 40 31	USB	(AB-EST)
S28	4625	14-2-2013	Thu	0702	MDZhB 72 508 METAKSIT 34 11 62 95	USB	(AB-EST)
S28	4625	14-2-2013	Thu	0729	MDZhB 76 539 NESUShChIJ 56 61 62 96	USB	(AB-EST)
S28	4625	14-2-2013	Thu	0816	MDZhB 28 691 FESTUKA 46 12 98 44	USB	(AB-EST)
S28	4625	20-2-2013	Wed	1328	MDZhB 13133 FIGIT 50885652	USB	(RSRu)
S28	4795	24-2-2013	Sun	1834	Buzzer on 4625//4667//4709//4752//4795 kHz	USB	(AB)
S28	4752	24-2-2013	Sun	1834	Buzzer on 4625//4667//4709//4752//4795 kHz	USB	(AB)
S28	4709	24-2-2013	Sun	1834	Buzzer on 4625//4667//4709//4752//4795 kHz	USB	(AB)
S28	4667	24-2-2013	Sun	1834	Buzzer on 4625//4667//4709//4752//4795 kHz	USB	(AB)
S28	4625	24-2-2013	Sun	1834	Buzzer on 4625//4667//4709//4752//4795 kHz	USB	(AB)
S28	4625	27-2-2013	Wed	1504	MDZhB 29 638 BEKAChINYJ 53 43 72 00	USB	(AB-EST)
S30	3756.7	5-2-2013	Tue	1720	Pips about 1/sec.	CW	(MPJ)
S30	5448	6-2-2013	Wed	0626	Pip marker	CW	(AB)
S30	3756	12-2-2013	Tue	2055	Pip marker	CW	(AB)
S32	3828	8-2-2013	Fri	1815	Dlya Rasa-64 Otpor-89 Dubler-68 Kovboj-39 Utes-94 Ryabi-na-38 kak slyshno? kak slyshno? priyom	USB	(Avare)
S32	3828	8-2-2013	Fri	1908	Dlya Fontan-34 Dzhigit-46 Sliba-94 Ruzh'e-26 Landysh-74 Bizon-64 kak slyshno? kak slyshno? priyom	USB	(Avare)
S32	3828	12-2-2013	Tue	2054	Squeaky Wheel marker	USB	(AB)
S32	3828	24-2-2013	Sun	2139	Squeaky Wheel //3793 kHz	USB	(AB)
S32	3793	24-2-2013	Sun	2139	Squeaky Wheel //3828 kHz	USB	(AB)
S6930	6930	15-2-2013	Fri	1713	Russian Mil.	USB	(TR2)
SDN	21000	27-1-2013		1027	MFA Kharthoum, Sudan calling embassy Yemen for Pactor 1 traffic, whistling male persons	USB	(IARUMS)
SDN	21002.1	27-1-2013		1201	MFA Sudan Kharthoum	Pactor-1 100/170	(IARUMS)
V13	7688	6-2-2013	Wed	0612	in progress; ends 0623 UTC	USB	(AB-HK)
V13	7654	9-2-2013	Sat	0700	New Star #3. Tune and coded messages. Ends 0726	USB	(AB-HK)
V13	7688	9-2-2013	Sat	1212	New Star in progress	USB	(AB-USA)
V13	7688	11-2-2013	Mon	0612	New Star in progress	USB	(AB-HK)
V13	7688	14-2-2013	Thu	1202	New Star in progress	USB	(AB-USA)
V13	7688	14-2-2013	Thu	1318	New Star in progress	USB	(AB-HK)
V13	7654	23-2-2013	Sat	0800	New Star #3. Tune followed by coded messages	USB	(AB-HK)

enigma	Freq.	date	day	UTC	remarks	mode	contributor
V13	7654	24-2-2013	Sun	0800	New Star #3. Tune + coded messages	USB	(AB-HK)
V26	7553	9-2-2013	Sat	1010	in progress //9153 kHz	USB	(NC)
V26	9153	9-2-2013	Sat	1010	in progress //7553 kHz	USB	(NC)
VC01	5232	8-2-2013	Fri	1528	Chinese Robot	LSB	(JPL)
VC01	5232	9-2-2013	Sat	1729	Chinese Robot	LSB	(AB/JPL)
VC01	5232	10-2-2013	Sun	1554	Chinese Root in progress.	LSB	(AB-HK)
VC01	5232	14-2-2013	Thu	1213	Chinese Robot in progress	LSB	(AB-USA)
VC01	5232	14-2-2013	Thu	1320	Chinese Robot in progress	LSB	(AB-HK)
VC01	5232	23-2-2013	Sat	1413	Chinese Robot in progress	LSB	(AB-HK)
VC01	5232	23-2-2013	Sat	1654	Chinese Robot in progress	LSB	(AB-HK)
VC01	5232	24-2-2013	Sun	1245	Chinese Robot in progress. Also at 1315 and 1459 UTC	LSB	(AB-USA)
VC01	5232	25-2-2013	Mon	1705	Chinese Robot in progress	LSB	(JPL)
VC01	5232	26-2-2013	Tue	1215	Chinese Robot in progress	LSB	(JPL-HK)
VC01	5232	27-2-2013	Wed	1432	Chinese Robot in progress	LSB	(JPL-HK)
X06	11501	19-2-2013	Tue	0705	Mazielka. Sequence 123456	USB	(FMB)
X06	4565	20-2-2013	Wed	1630	Mazielka in progress. Sequence: 212112	USB	(FN)
X06	5801	26-2-2013	Tue	1745	Mazielka. Sequence 123456	USB	(FMB)
X06	6942	26-2-2013	Tue	1900	Mazielka. Sequence 123456	USB	(FMB)
X06	7731	26-2-2013	Tue	2030	Mazielka. Sequence 123456	USB	(FMB)
XPA	8123	7-2-2013	Thu	1900	158 158 158 1 158 158 158 1 158 158 158 1 msg (see N&O 185)	MFSK	(MFU)
XPA	8123	7-2-2013	Thu	1900	msg	MFSK	(HFD)
XPA	7523	7-2-2013	Thu	1920	158 158 158 1 158 158 158 1 158 158 158 1 msg (see N&O 185)	MFSK	(MFU)
XPA	7523	7-2-2013	Thu	1920	msg	MFSK	(HFD)
XPA	6823	7-2-2013	Thu	1940	158 158 158 1 158 158 158 1 158 158 158 1 msg (see N&O 185)	MFSK	(MFU)
XPA	6823	7-2-2013	Thu	1940	msg	MFSK	(HFD)
XSL	8313	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	4153	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	4231.5	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	6250	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	6445	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	8588	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	8703.5	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	6417	10-2-2013	Sun	1612	Japanese Navy a.k.a. Slot Machine	QPSK 1500bd	(AB)
XSL	6445	16-2-2013	Sat	0010	Japanese SlotMachine	QPSK 1500	(CAJ)
XSL	6417	16-2-2013	Sat	0010	Japanese SlotMachine	QPSK 1500	(CAJ)
XSL	4291	16-2-2013	Sat	0010	Japanese SlotMachine	QPSK 1500	(CAJ)
XSL	6445	17-2-2013	Sun	0010	Japanese SlotMachine	QPSK 1500	(CAJ)
XSL	4232	18-2-2013	Mon	0009	Japanese SlotMachine	QPSK 1500	(CAJ)
XSL	4153	18-2-2013	Mon	0009	Japanese SlotMachine	QPSK 1500	(CAJ)
XSL	4291	18-2-2013	Mon	0009	Japanese SlotMachine	QPSK 1500	(CAJ)

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All information in this newsletter was submitted by independent radio monitors or has been obtained from public available sources and public sites on the web. Wherever data was obtained via the web or elsewhere, references and/or links to these sources have been noted.

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Utility DXers Forum (utility and spooks related logs)
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Website: http://www.udxf.nl

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Go to the web interface http://mailman.qth.net/mailman/listinfo/spooks to subscribe. Fill in the form and follow the instructions that will be mailed to you.