

Pip (S30)

December 2011

Statistics

Messages	Day (5448 kHz)*	Night (3756 kHz)	Per day	Total
Dlya	24	69	3	93
8С1Щ	10	5	0,48	15
TOTAL	34	74	3,48	108

* Day frequency has been monitored from December 9 onwards

Cheat sheet

Frequency	Daytime	Nighttime
	5448	3756
Schedule	0430z-1300z	1300z-0430z
Dlya schedule	From	To
Morning	0232z	0423z
Evening	1709z	1813z

Messages

Для (Dlya)

Pip has continued to send Dlya messages regularly. With more data now available it is clear that they have a pool of call signs that they shuffle every now and then but the calls themselves don't seem to change. I presented this pool of call signs in my previous post and the content is still valid, however Pip operators have added a few tricks to change the order they are sent in.

From mid-November to mid-December the main order was to send every second pool: 01-03-05-07-09-11-13-15-02-04-06-08-10-12-14 and loop this system a couple times around. After this Pip started offsetting these pools, a practise that is detailed in the following chapter. And the most recent activity - December 28 onwards - indicates that Pip has returned to the normal call sign pool it ran from mid-November to mid-December.

In conclusion it seems that there is no strict regimen to how these call signs are shuffled and when the switchovers happen, however in general one can expect changes to the system every 2 weeks or so.

A mistake on the 12th of December suggests that the Pip operators have a premade list of messages to send. The operator read pool 7 message and he also read one extra call sign, BTX3, which belongs to the pool 9 which was the logical next message in the rotation Pip had at the time. It is possible that he read this last call sign by mistake as he kept a little pause after the first reading, presumably trying to find his place.

This was soon confirmed in the next sending at 1753z where pool 9 message was read, but with the first call sign omitted. Presumably they had received a reception report from the recipient BTX3 and it was not necessary to contact that station again in just 4 hours.

[S30-3756USB-20111212-1331z-msg-bytucana](#)

Для ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Ж7НЖ ЫМА5 **ВТХ3**
Dlya ShchGJP 8CShchJ TZLM FY5Ye F61N 37CN MUDR 7VNShch Zh7NZh YMA5 **VTH3**

[S30-3756USB-20111212-1753z-msg-bytucana](#)

Для АГДТ ЪУ1Б ОСОГ БО6Ц Ф56Щ 9ГСА ЖБЗУ 4РВЗ ЗВСЬ
Dlya AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ 3VS'

Offsetting

Offsetting means that Pip skips the first call sign of the pool and reads the last 9 and then jumps to the pool after the next and reads the first call sign of that.

As half of the call signs in each pool are identical to the previous and following pool it makes sense to jump over the next pool to avoid repetition. So far the offsets have been 1 to 4 call signs and seem to be quite random.

Here is a graph with all call sign pools and message contents of the recordings below marked in red and blue, illustrating an offset of 4 and 3 call signs respectively.

Pools											
№	1	2	3	4	5	6	7	8	9	10	
01	27ЩЬ	Н1ДУ	53ОБ	78МВ	А3ПС	ЪМСВ	ЫГЙЬ	12СИ	79АЙ	ПЬХЩ	
02	ЪМСВ	ЫГЙЬ	12СИ	79АЙ	ПЬХЩ	6ЕХВ	ЬУЕ8	ЦПЗЬ	ЩТЗО	ЦИХС	
03	6ЕХВ	ЬУЕ8	ЦПЗЬ	ЩТЗО	ЦИХС	Ж1ТР	М1СЕ	З7ПМ	ЬО6П	ЙХЬЙ	
04	Ж1ТР	М1СЕ	З7ПМ	ЬО6П	ЙХЬЙ	ДМЦЗ	49ФТ	Ц2ЗА	ЛИ27	ИННЦ	
05	ДМЦЗ	49ФТ	Ц2ЗА	ЛИ27	ИННЦ	ЩГЙП	8ЦЩЙ	ТЗЛМ	ФЫ5Е	Ф61Н	
06	ЩГЙП	8ЦЩЙ	ТЗЛМ	ФЫ5Е	Ф61Н	37ЦН	МУДР	7ВНЩ	Ж7НЖ	ЫМА5	
07	37ЦН	МУДР	7ВНЩ	Ж7НЖ	ЫМА5	ВТХ3	АГДТ	ЪУ1Б	ОСОГ	БО6С	
08	ВТХ3	АГДТ	ЪУ1Б	ОСОГ	БО6Ц	Ф56Щ	9ГСА	ЖВЗА	4РВЗ	ЗВСЬ	
					1	2	3	4	5	6	
09	Ф56Щ	9ГСА	ЖБЗУ	4РВЗ	ЗВСЬ	ДКЙ1	6И2Ж	ЖД9В	СЙ5Ц	62БВ	
10	ДКЙ1	6И2Ж	ЖД9В	СЙ5Ц	62БВ	81БР	М7КС	ПМВ5	ЛЬГЙ	ТЩЦС	
	7	8	9	10							
11	81БР	М7КС	ПМВ5	ЛЬГЙ	ТЩЦС	ВКЫ1	ХЦЛФ	61ХЖ	ЗБИЛ	Л7О5	
12	ВКЫ1	ХЦЛФ	61ХЖ	ЗБИЛ	Л7О5	ВЪЗЬ	НЛЦЕ	8Ь4О	АУИ8	2ЗЩН	
					1	2	3	4	5	6	7
13	ВЪЗЬ	НЛЦЕ	8Ь4О	АУИ8	2ЗЩН	В2МЗ	ЖСК4	СБ7З	ТАЗ7	ПЫЦМ	
14	В2МЗ	ЖСК4	СБ7З	ТАЗ7	ПЫЦМ	Ы8ВМ	8МУО	ТУЗР	5Й7Щ	ВЛДХ	
	8	9	10								
15	Ы8ВМ	8МУО	ТУЗР	5Й7Щ	ВЛДХ	27ЩЬ	Н1ДУ	53ОБ	78МВ	А3ПС	

Red

[S30-3756USB-20111205-0302z-msg-bytucana](#)

Для ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62БВ 81БР М7КС ПМВ5 ЛЬГЙ
Dlya 3VS' DKJ1 6I2Zh ZhD9V SJ5C 62BV 81BR M7KS PMV5 L'GJ

Blue

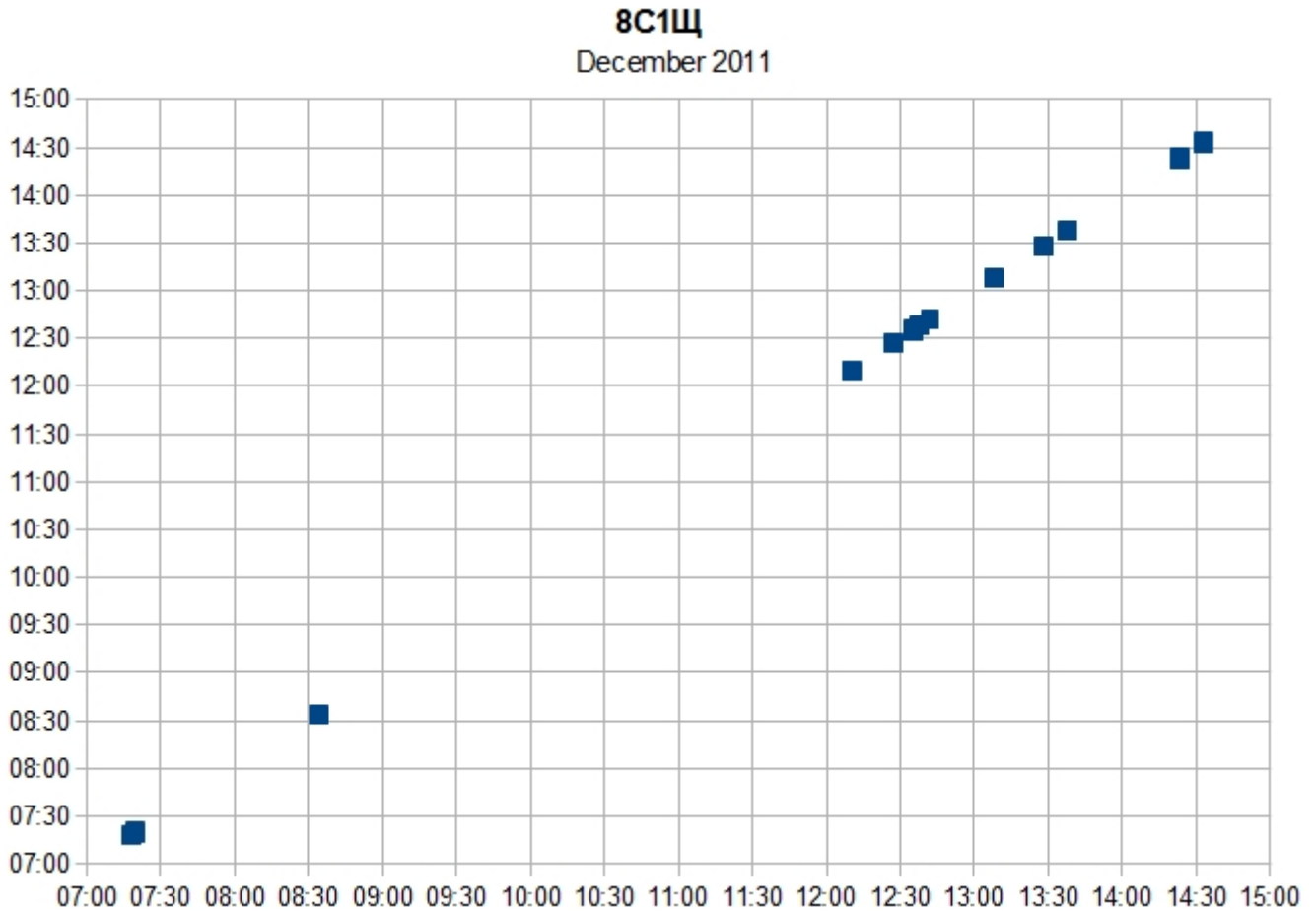
[S30-3756USB-20111225-0419z-msg-bytucana](#)

Для АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З ТАЗ7 ПЫЦМ Ы8ВМ 8МУО ТУЗР
Dlya AUI8 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM Y8VM 8MUO TUZR

8С1Щ (8S1Shch)

8S1Shch messages are clearly more prevalent on the daytime frequency and thanks to that a much larger number of them has been received in this monitoring period.

Unfortunately due to the design of these messages it is very difficult to do analysis on them without committing a lot of resources to it. But here are a of couple recordings and a graph of the transmission times.



[S30-5448USB-20111228-1227z-msg-bytucana](#)

8С1Щ 59 682 АКРОПОМА 06 69 93 96

8S1Shch 59 682 АКРОПОМА 06 69 93 96

[S30-5448USB-20111223-1235z-msg-bytucana](#)

8С1Щ 13 010 ФЕЛЛО 96 66 12 79

8S1Shch 13 010 FYeLLO 96 66 12 79

Other events

Multicasting

With the daytime monitoring it became obvious that Pip uses two transmitters and on occasion multicasts up to 50 minutes during the frequency switchover. Voice messages are sent on both frequencies during this time.

Short form Dlyas

One of the Pip operators is always in a hurry and has started to read Dlya messages only twice instead of four times like everyone else. This is the fastest she has been so far, 51,4 seconds.

[S30-3756USB-20111218-1453z-msg-bytucana](#)

Для ЫМА5 ВТХЗ АГДТ ЪУ1В ОСОГ БО6С Ф56Щ 9ГСА ЖБЗУ 4РВЗ
Dlya YMA5 VTH3 AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ

CIS-36-50 A.K.A. BEE

This Russian datamode was transmitted on 3756 kHz on the 21st of December from 1831z to 1900z and then again from 1913z to 1928z. It interfered with a Dlya message and ended 30 seconds after the message was over. Military causing interference to it's own transmissions shows either very poor planning or the assumption that the intended recipients of these messages are so far away from each other that they are not interfered by the other transmission.

[Wavecom has some information about this mode.](#)

[S30-3756USB-20111221-1926z-msg-bytucana](#)

Для ЦПЗЬ ЩТЗО ЦИХС Ж1ТР М1СЕ З7ПМ ЪО6П ЙХЬЙ ЗЪ1В НИ9В
Dlya CP3' ShchTZO CIHS Zh1TR M1SYe Z7PM 'O6P JH'J Z'1B NI9V

Pip failure

On the 30th of December the Pip sound generator failed for a short time. Compared to the Buzzer (S28) they managed to bring Pip back up very fast.

[S30-3756USB-20111230-1404z-odd-bytucana](#)

Radio amateurs vs. Pip

Pip had couple run-ins with amateur radio operators this month, from operator asking nicely for Pip to QSY (change frequency) to a ham yelling "Russki shut up!".

"QSY, QSY!"

[S30-3756USB-20111224-0335z-msg-bytucana](#)

Для ЛИ27 ИННЦ ШГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ
Dlya LI27 INNC ShchGJP 8CShchJ TZLM FY5Ye F61N 37CN MUDR 7VNShch

"Russki shut up!"

[S30-3756USB-20111224-1410z-msg-bytucana](#)

Для ЛЬГЙ ТЩЦС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О5 ВЪЗЪ НЛЦЕ 8Ъ4О
Dlya L'GJ TShchShchS VKY1 HCLF 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O

Morse transmissions

Since the 16th of December transmissions in Morse code have been quite common on the Pip night frequency around the time Pip moves from 5448 kHz to 3756 kHz. Most traffic seems to happen between 1200z-1500z with the highest activity at 1300z ±30min.

The call sign RJC66 has been connected to the CIS Navy by many researchers which might suggest that this is a Russian naval frequency. The morse stations are using different transmitters than Pip though. Below are couple sample decodes:

Contact on December 16, 1301z-1306z, no messages this time.

```
VVV RJC66 RJC66 RJC66 DE RJI76 RJI76 QSA?  
RJC66 DE RJI76 QSA3 QRU? K  
RJI76 QRU K  
RJI76 SK
```

Contact on December 17, 1306-1312z with a message.

```
VVV RJC66 RJC66 RJC66 DE RBGE RBGE QSA? QTC K  
RBGE 215 23 17 17 00 215 = SML FOR RJC66 = 11111 98269 127N3 334T6 4774E M91TS  
5774T H2443 42G89 81335 4IE42 7TOE3 93421 3D931 1T916 29165 1487T 93339 O51T9  
97119 7971M IT2T = AR RBGE K  
RBGE RPT E FOR RJC66 K  
RBGE OK QRU K
```

Here's a closer look on the message preamble

RBGE 215 23 17 17 00 215 = SML FOR RJC66 = 11111...

RBGE	Sender's call sign
215	Message number (repeated after the time group)
23	Group count (includes
17	Day
00	Normally a timestamp, might be missing due to higher priority of the message.
SML	(Samoljot) indicates the priority level of the message. SML is the lowest above normal priority commonly used.
FOR	Email me at tucana@priyom.org if you know what this means
RJC66	Recipient's call sign
11111	Start of the message, 11111 is presumed to be a practise message.

And for those not used to dealing with CW here's a little help with the abbreviations:

Abbreviation	Meaning
VVV	Transmit in morse code
DE	This is
QSA?	What is the strength of my signal? (1-5)
QRU?	Have you anything for me?
QTC	I have messages for you
K	Over
SK	Out
AR	End of message
RPT	Repeat

I should point out that the actual message content is not perfectly decoded but other content should be correct.

Other notes

Due to power outages and equipment malfunction I lost recordings from 26.12 0430z to 27.12 0301z, 27.12 from 1300z to 2057z and 31.12 0139z-0252z. I was able to partially record a 8C1III message on 26.12 at 0720z but sadly all other data is lost.

Once again I've received great help from others which has saved a lot of time. Gwraspe has helped me by checking recordings and proofreading this post while Avare, danix111 and TROJAN719 have transcribed 8C1III messages for me and T! identified the digital mode as CIS-36-50. Thanks!

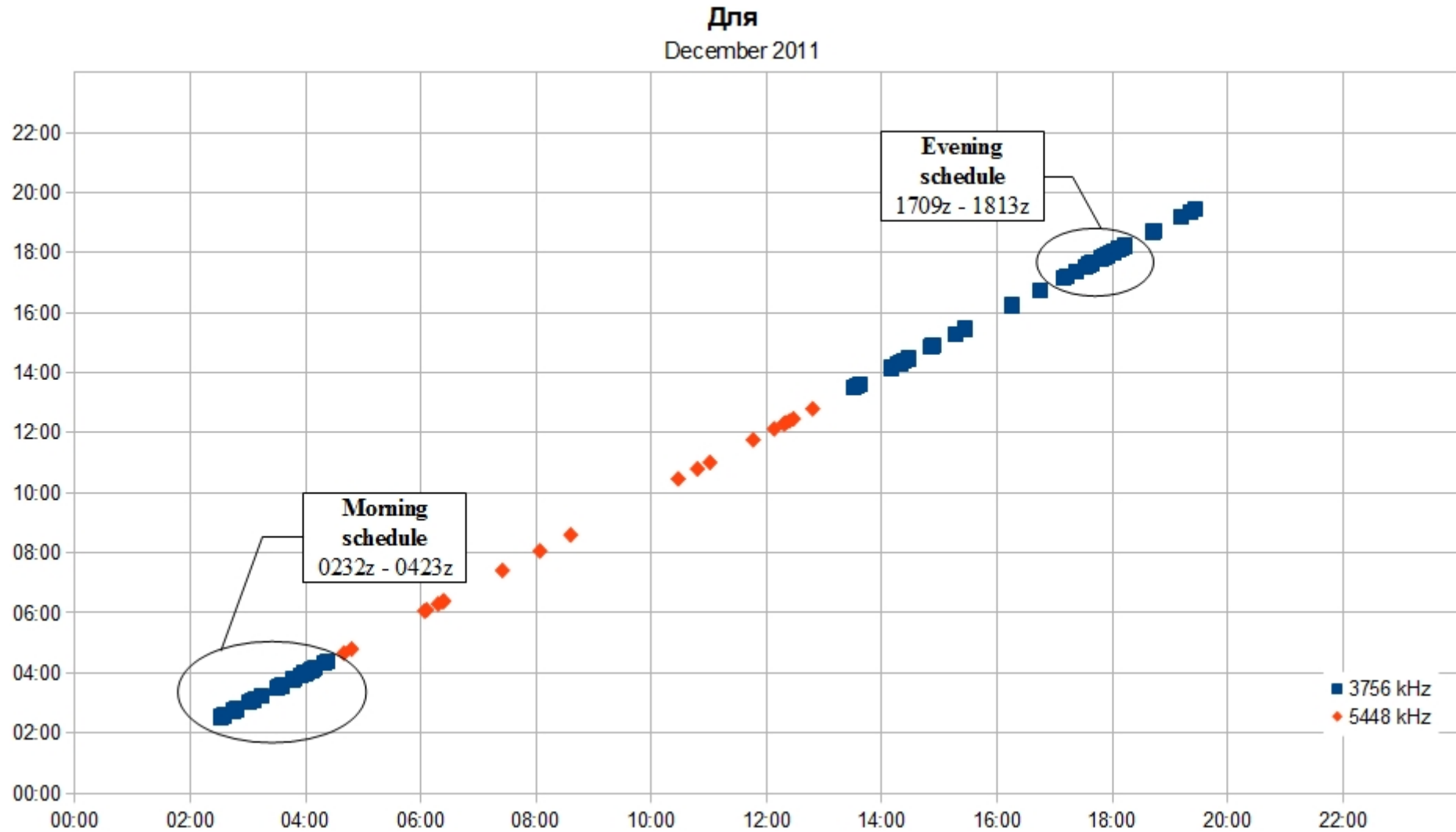
Please contact me if you have more information about the Pip.

Tucana

tucana@priyom.org

Schedules

Dlya messages are quite scattered but for the morning and evening sendings there are still a couple sweet spots and monitoring the frequency at those times will most likely yield you a message. This graph shows all Dlya sendings in December.



Logs

8С1Щ (8S1Shch)

Date	Time	Frequency	Cyrillic	Latin	Notes
07.12.11	1423z	3756	8С1Щ 41 914 АНТРОИНАЯ 22 91 49 18	8S1Shch 41 914 ANTROINAYA 22 91 49 18	
07.12.11	1433z	3756	8С1Щ 58 725 СИКСТЕТ 97 71 01 16	8S1Shch 58 725 SIKSTET 97 71 01 16	
08.12.11	1328z	3756	8С1Щ 66 341 РУВЧАТОСТЬ 29 57 18 37	8S1Shch 66 341 RUBCHATOST' 29 57 18 37	
11.12.11	1242z	5448	8С1Щ 16 771 АБСЕНТЕИСТ 88 70 98 31	8S1Shch 16 771 ABSYeNTYeIST 88 70 98 31	
11.12.11	1338z	3756	Inaudible	Inaudible	Amateur radio QRM
12.12.11	1133z	5448	8С1Щ 49 391 ХАБУР 43 56 11 68	8S1Shch 49 391 HABUR 43 56 11 68	
15.12.11	1242z	5448	8С1Щ 69 873 СУХОЯДНИК 80 78 14 44	8S1Shch 69 873 SUHOYADNIK 80 78 14 44	Mistake on the first reading
18.12.11	0834z	5448	8С1Щ 34 324 АТТИЧЕСКИЙ 89 39 00 10	8S1Shch 34 324 ATTICHYeSKIY 89 39 00 10	
21.12.11	0718z	5448	8С1Щ 47 313 БИУРАТ 83 39 42 87	8S1Shch 47 313 BIURAT 83 39 42 87	
23.12.11	1235z	5448	8С1Щ 13 010 ФЕЛЛО 96 66 12 79	8S1Shch 13 010 FYeLLO 96 66 12 79	
25.12.11	1210z	5448	8С1Щ 24 192 НАЛИВЧАТЫЙ 51 47 93 86	8C1Shch 24 192 NALIVChATYJ 51 47 93 86	
26.12.11	0720z	5448	8С1Щ 70 294 ВЕРТОГРАД 18 23 91 91	8C1Shch 70 294 VYeRTOGRAD 18 23 91 91	
27.12.11	1238z	5448	8С1Щ 52 602 РАЗДВОЕНИЕ 95 32 36 18	8C1Shch 52 602 RAZDVOYeNIYe 95 32 36 18	
28.12.11	1227z	5448	8С1Щ 59 682 АКРОПОМА 06 69 93 96	8C1Shch 59 682 AKROPOMA 06 69 93 96	
30.12.11	1308z	3756	8С1Щ 14 752 ГАЛДЕЗХ 38 82 86 34	8C1Shch 14 752 GALDYeZH 38 82 86 34	

Для (Dlya)

Date	Time	Frequency	Message (Cyrillic/Latin)	Notes
01.12.11	1334z	3756	Для ДМЦЗ 49ФТ ЦЗЗА ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н Dlya DMC3 49FT C2ZA LI27 INNC ShchGJP 8CShchJ TZLM FY5Ye F61N	
01.12.11	1842z	3756	Для Ф61Н 37ЦН МУДР 7ВНЦ Ж7НЖ ЫМА5 ВТХ3 АГДТ ЪУ1В ОСОГ Dlya F61N 37CN MUDR 7VNShch Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG	
02.12.11	0330z	3756	Для ВО6С Ф56Щ 9ГСА ЖВЗА 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц Dlya BO6C F56Shch 9GSA ZhBZU 4RVZ 3VS' DKJ1 6I2Zh Zhd9V SJ5C	
02.12.11	1334z	3756	Для ДМЦЗ 49ФТ ЦЗЗА ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Dlya DMC3 49FT C2ZA LI27 INNC ShchGJP 8CShchJ TZLM FY5Ye	
02.12.11	1842z	3756	Для Ф61Н 37ЦН МУДР 7ВНЦ Ж7НЖ ЫМА5 ВТХ3 АГДТ ЪУ1В ОСОГ Dlya F61N 37CN MUDR 7VNShch Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG	
03.12.11	0330z	3756	Для ВО6С Ф56Щ 9ГСА ЖВЗУ 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц Dlya BO6C F56Shch 9GSA ZhBZU 4RVZ 3VS' DKJ1 6I2Zh Zhd9V SJ5C	
03.12.11	1807z	3756	Для ПЫЦМ Ы8ВМ 8МУО ТУЗР 5Й7Щ ВЛДХ 27ЩЬ Н1ДУ 53ОБ 78МВ Dlya PYCM Y8VM 8MUO TUZR 5J7Shch VLDH 27Shch' N1DU 53OB 78MV	
04.12.11	0248z	3756	Для АЗПС ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЬХЩ 6ЕХБ ЪУЕ8 ЦПЗЬ ЩТЗО Dlya AZPS 'MSV YGJ' 12CI 79AJ P'NShch 6YeNB 'UYe8 CP3' ShchT3O	
04.12.11	1322z	3756	Inaudible	
04.12.11	1732z	3756	Для ЫМА5 ВТХ3 АГДТ ЪУ1В ОСОГ ВО6Ц Ф56Щ 9ГСА ЖВЗА 4РВЗ Dlya YMA5 VTH3 AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ	
05.12.11	0302z	3756	Для ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62ВВ 81БР М7КС ПМВ5 ЛЬГЙ Dlya 3VS' DKJ1 6I2Zh Zhd9V SJ5C 62BV 81BR M7KS PMV5 L'GJ	
06.12.11	1419z	3756	Для ПЬХЩ 6ЕХБ ЪУЕ8 ЦПЗЬ ЩТЗО ЦИХС Ж1ТР М1СЕ З7ПМ ЪО6П Dlya P'NShch 6YeNB 'UYe8 CP3' ShchT3O CIHS Zh1TR M1SYe Z7PM 'O6P	
07.12.11	0314z	3756	Для 37ЦН МУДР 7ВНЦ Ж7НЖ ЫМА5 ВТХ3 АГДТ ЪУ1В ОСОГ ВО6Ц Dlya 37CN MUDR 7VNShch Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG BO6C	
07.12.11	1737z	3756	Для ВЬЗЬ НЛЦЕ 8Ь4О АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З ТА37 ПЫЦМ Dlya V'Z' NLCYe 8'4O AUI8 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM	
08.12.11	0333z	3756	Для Ы8ВМ 8МУО ТУЗР 5Й7Щ ВЛДХ 27ЩЬ Н1ДУ 53ОБ 78МВ АЗПС Dlya Y8VM 8MUO TUZR 5J7Shch VLDH 27Shch' N1DU 53OB 78MV AZPS	

08.12.11	1842z	3756	Для ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Ж7НЖ ЫМА5 Dlya ShchGJP 8CShchJ TZLM FY5Ye F61N 37CN MUDR 7VNShch Zh7NZh YMA5	
09.12.11	1401z	3756	Для ВТХ3 АГДТ ЪУ1Б ОСОГ ВО6Ц Ф56Щ 9ГСА ЖБЗУ 4РВЗ ЗВСЬ Dlya VTH3 AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ 3VS'	
09.12.11	1028z	5448	Для ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62БВ 81БР М7КС ПМВ5 ЛЬГЙ ТЩЩС Dlya DKJ1 6I2Zh ZhD9V SJ5C 62BV 81BR M7KS PMV5 L'GJ TShchShchS	
09.12.11	1337z	3756	Для ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О6 ВЪЗЬ НЛЦЕ 8Ь4О АУИ8 2ЗЩН Dlya VKY1 HCLF 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O AUI8 2ZShchN	
09.12.11	1712z	3756	Для В2МЗ ЖСК4 СБ7З ТАЗ7 ПЫЦМ Ы8ВМ 8МУО ТУЗР 5Й7Щ ВЛДХ Dlya V2MZ ZhSK4 SB7Z TAZ7 PYCM Y8VM 8MUO TUZR 5J7Shch VLDH	
10.12.11	0232z	3756	Для 27ЩЬ АЗПС 53ОБ 78МВ АЗНС ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЬХЩ Dlya 27Shch' N1DU 53OB 78MV A3NS 'MSV YGJ' 12CI 79AJ P'NShch	
10.12.11	1451z	3756	Для ДМЦЗ 49ФТ Ц2ЗА ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н Dlya DMC3 49FT C2ZA LI27 INNC ShchGJP 8CShchJ TZLM FY5Ye F61N	Short form
10.12.11	1752z	3756	Для 37ЦН МУДР 7ВНЩ Ж7НЖ ЫМА5 ВТХ3 АГДТ ЪУ1Б ОСОГ ВО6С Dlya 37CN MUDR 7VNShch Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG BO6C	Short form
11.12.11	0408z	3756	Для Ф56Щ 9ГСА ЖБЗУ 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62БВ Dlya F56Shch 9GSA ZhBZU 4RVZ 3VS' DKJ1 6I2Zh ZhD9V SJ5C 62BV	Short form
11.12.11	0948z	5448	Inaudible	
11.12.11	1423z	3756	Для ВЪЗЬ НЛЦЕ 8Ь4О АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З ТАЗ7 ПЫЦМ Dlya V'Z' NLCYe 8'4O AUI8 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM	
11.12.11	1736z	3756	Для Ы8ВМ 8МУО ТУЗР 5Й7Щ ВЛДХ 27ЩЬ Н1ДУ 53ОБ 78МВ АЗПС Dlya Y8VM 8MUO TUZR 5J7Shch VLDH 27Shch' N1DU 53OB 78MV A3PS	
12.12.11	0235z	3756	Для ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЬХЩ 6ЕХБ ЪУЕ8 ЦПЗЬ ЩТЗО ЦИХС Dlya 'MSV YGJ' 12CI 79AJ P'NShch 6YeNB 'UYe8 CP3' ShchT3O CIHS	
12.12.11	0618z	5448	Для Ж1ТР М1СЕ 37ПМ ЪО6П ЙХЬЙ ДМЦЗ 49ФТ Ц2ЗА ЛИ27 ИННЦ Dlya Zh1TR M1SYe Z7PM 'O6P JH'J DMC3 49FT C2ZA LI27 INNC	
12.12.11	1331z	3756	Для ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Ж7НЖ ЫМА5 ВТХ3 Dlya ShchGJP 8CShchJ TZLM FY5Ye F61N 37CN MUDR 7VNShch Zh7NZh YMA5 VTH3	
12.12.11	1753z	3756	Для АГДТ ЪУ1Б ОСОГ ВО6Ц Ф56Щ 9ГСА ЖБЗУ 4РВЗ ЗВСЬ Dlya AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ 3VS'	
13.12.11	0410z	3756	Для ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62БВ 81БР М7КС ПМВ5 ЛЬГЙ ТЩЩС	

			Dlya DKJ1 6I2Zh ZhD9V SJ5C 62BV 81BR M7KS PMV5 L'GJ TShchShchS	
13.12.11	1220z	5448	Для ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л706 ВЪЗЪ НЛЦЕ 8Ъ40 АУИ8 2ЗЩН Dlya VKY1 HCLF 61HZh ZBIL L705 V'Z' NLCYe 8'40 AUI8 2ZShchN	
13.12.11	1529z	3756		
13.12.11	1911z	3756	Для Н1ДУ 27ЩЪ 53ОБ 78МВ АЗПС ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЪХЩ Dlya N1DU 27Shch' 53OB 78MV A3PS 'MSV YGJ' 12CI 79AJ P'HSch	
14.12.11	0245z	3756	Для 6ЕХВ ЪУЕ8 ЦПЗЪ ЩТЗО ЦИХС Ж1ТР М1СЕ З7ПМ ЪО6П ЙХЪЙ Dlya 6YeHB 'UYe8 CP3' ShchT3O CIHS Zh1TR M1SYe Z7PM 'O6P JH'J	
14.12.11	0826z	5448		Short form
14.12.11	1527z	3756	Для ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Ж7НЖ ЪМА5 ВТХ3 АГДТ ЪУ1Б Dlya FY5Ye F61N 37CN MUDR 7VNSch Zh7NZh YMA5 VTH3 AGDT 'U1B	Short form
14.12.11	1755z	3756	Для ОСОГ ВО6С Ф56Щ 9ГСА ЖБЗУ 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В Dlya OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ 3VS' DKJ1 6I2Zh ZhD9V	Short form
15.12.11	0359z	3756	Для СЙ5Ц 62БВ 81БР М7КС ПМВ5 ЛЬГЙ ТЩЦС ВКЫ1 ХЦЛФ 61ХЖ Dlya SJ5C 62BV 81BR M7KS PMV5 L'GJ TShchShchS VKY1 HCLF 61HZh	Short form
15.12.11	0606z	5448	Для ЗБИЛ Л705 ВЪЗЪ НЛЦЕ 8Ъ40 АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З Dlya ZBIL L705 V'Z' NLCYe 8'40 AUI8 2ZShchN V2MZ ZhSK4 SB7Z	
15.12.11	1218z	5448	Для ТАЗ7 ПЫЦМ Ъ8ВМ 8МУО ТУЗР 5Й7Щ ВЛДХ 27ЩЪ Н1ДУ 53ОБ Dlya TAZ7 PYCM Y8VM 8MUO TUZR 5J7Shch VLDH 27Shch' N1DU 53OB	
15.12.11	1722z	3756	Для 78МВ АЗПС ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЪХЩ 6ЕХВ ЪУЕ8 ЦПЗЪ Dlya 78MV A3PS 'MSV YGJ' 12CI 79AJ P'HSch 6YeHB 'UYe8 CP3'	
16.12.11	0307z	3756	Для ЩТЗО ЦИХС Ж1ТР М1СЕ З7ПМ ЪО6П ЙХЪЙ ЗЪ1Б НИ9В ДМЦЗ Dlya ShchT3O CIHS Zh1TR M1SYe Z7PM 'O6P JH'J Z'1B NI9V DMC3	
16.12.11	0836z	5448	Для 49ФТ Ц2ЗА ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН Dlya 49FT C2ZA LI27 INNC ShchGJP 8CSchJ TZLM FY5Ye F61N 37CN	Mistake (said Приём after first 2 readings)
16.12.11	1417z	3756	Для МУДР 7ВНЩ Ж7НЖ ЪМА5 ВТХ3 АГДТ ЪУ1Б ОСОГ ВО6С Ф56Щ Dlya MUDR 7VNSch Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG BO6C F56Shch	
16.12.11	1809z	3756	Для 9ГСА ЖБЗУ 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62БВ 81БР Dlya 9GSA ZhBZU 4RVZ 3VS' DKJ1 6I2Zh ZhD9V SJ5C 62BV 81BR	
17.12.11	0406z	3756	Для М7КС ПМВ5 ЛЬГЙ ТЩЦС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л705 ВЪЗЪ Dlya M7KS PMV5 L'GJ TShchShchS VKY1 HCLF 61HZh ZBIL L705 V'Z'	
17.12.11	1146z	5448	Для Ъ8ВМ ПЫЦМ ТАЗ7 СБ7З ЖСК4 В2МЗ 2ЗЩН АУИ8 8Ъ40 НЛЦЕ	

			Dlya Y8VM PYCM TAZ7 SB7Z ZhSK4 V2MZ 2ZShchN AUI8 8'40 NLCYe	
17.12.11	1615z	3756	Для 8МУО ТУЗР 5Й7Щ ВЛДХ 27ЩЬ Н1ДУ 53ОБ 78МВ АЗПС ЪМСВ Dlya 8MUO TUZR 5J7Shch VLDH 27Shch' N1DU 53OB 78MV A3PS 'MSV	
17.12.11	1813z	3756	Для ЫГЙЬ 12СИ 79АЙ ПЬХЩ 6ЕХВ ЪУЕ8 ЦПЗЬ ЩТЗО ЦИХС Ж1ТР Dlya YGJ' 12CI 79AJ P'HSch 6YeHB 'UYe8 CP3' ShchT3O CIHS Zh1TR	Numbers read as tens
18.12.11	0448z	5448	Для М1СЕ З7ПМ ЂОП ЙХЬЙ ЗЫ1Б НИ9В ДМЦЗ 49ФТ Ц2ЗА ЛИ27 Dlya M1SYe Z7PM 'O6P JH'J Z'1B NI9V DMC3 49FT C2ZA LI27	
18.12.11	0924z	5448		
18.12.11	1453z	3756	Для ЪМА5 ВТХЗ АГДТ ЪУ1Б ОСОГ БО6С Ф56Щ 9ГСА ЖБЗУ 4РВЗ Dlya YMA5 VTH3 AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ	Short form
18.12.11	1844z	3756	Для ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62ВВ 81БР М7КС ПМВ5 ЛЬГЙ Dlya ZVS' DKJ1 6I2Zh ZhD9V SJ5C 62BV 81BR M7KS PMV5 L'GJ	
19.12.11	0423z	3756	Для ТШЩС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О5 ВЪЗЬ НЛЦЕ 8Ъ4О АУИ8 Dlya TShchShchS VKY1 HCLF 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O AUI8	
19.12.11	0624z	5448	Для 2ЗЩН В2МЗ ЖСК4 СБ7З ТАЗ7 ПЬЩМ Ъ8ВМ 8МУО ТУЗР 5Й7Щ Dlya 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM Y8VM 8MUO TUZR 5J7Shch	
19.12.11	1048z	5448	Для ВЛДХ 27ЩЬ Н1ДУ 53ОБ 78МВ АЗПС ЪМСВ ЫГЙЬ 12СИ 79АЙ Dlya VLDH 27Shch' N1DU 53OB 78MV A3PS 'MSV YGJ' 12CI 79AJ	
20.12.11	0305z	3756	Для ЙХЬЙ ЗЫ1Б НИ9В ДМЦЗ 49ФТ Ц2ЗА ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ Dlya JH'J Z'1B NI9V DMC3 49FT C2ZA LI27 INNC ShchGJP 8CSchJ	
20.12.11	0623z	5448	Для ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Ж7НЖ ЪМА5 ВТХЗ АГДТ Dlya TZLM FY5Ye F61N 37CN MUDR 7VNSch Zh7NZh YMA5 VTH3 AGDT	
20.12.11	1016z	5448	Inaudible	
20.12.11	1517z	3756	Для ЪУ1Б ОСОГ БО6Ц Ф56Щ 9ГСА ЖВЗА 4РВЗ ЗВСЬ ДКЙ1 6И2Ж Dlya 'U1B OSOG BO6C F56Shch 9GSA ZhBZU 4RVZ ZVS' DKJ1 6I2Zh	
20.12.11	1759z	3756	Для ЖД9В СЙ5Ц 62ВВ 81БР М7КС ПМВ5 ЛЬГЙ ТШЩС ВКЫ1 ХЦЛФ Dlya ZhD9V SJ5C 62BV 81BR M7KS PMV5 L'GJ TShchShchS VKY1 HCLF	
21.12.11	0400z	3756	Для 61ХЖ ЗБИЛ Л7О5 ВЪЗЬ НЛЦЕ 8Ъ4О АУИ8 2ЗЩН В2МЗ ЖСК4 Dlya 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O AUI8 2ZShchN V2MZ ZhSK4	
21.12.11	1101z	5448	Для 53ОБ 78МВ АЗПС ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЬХЩ 6ЕХВ ЪУЕ8 Dlya 53OB 78MV A3PS 'MSV YGJ' 12CI 79AJ P'HSch 6YeHB 'UYe8	Numbers read as tens
21.12.11	1926z	3756	Для ЦПЗЬ ЩТЗО ЦИХС Ж1ТР М1СЕ З7ПМ ЂОП ЙХЬЙ ЗЫ1Б НИ9В Dlya CP3' ShchT3O CIHS Zh1TR M1SYe Z7PM 'O6P JH'J Z'1B NI9V	

22.12.11	1801z	3756	Для 81БР М7КС ПМВ5 ЛЬГЙ ТШЦС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О5 Dlya 81BR M7KS PMV5 L'GJ TShchShchS VKY1 HCLF 61HZh ZBIL L7O5	Short form
23.12.11	0423z	3756	Для ВЪЗЬ НЛЦЕ 8Ъ4О АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З ТА37 ПЫЦМ Dlya V'Z' NLCYe 8'4O AUI8 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM	
23.12.11	1428z	3756	Для ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЪХЩ 6ЕХБ ЪУЕ8 ЦПЗЬ ЩТ3О ЦИХС Dlya 'MSV YGJ' 12CI 79AJ P'NShch 6YeNB 'UYe8 CP3' ShchT3O CIHS	
23.12.11	1739z	3756	Для Ж1ТР М1СЕ 37ПМ ЪО6П ЙХЬЙ ЗЪ1Б НИ9В Ц2ЗА ЛИ27 ИННЦ Dlya Zh1TR M1SYe Z7PM 'O6P JH'J Z'1B NI9V DMC3 49FT C2ZA	
24.12.11	0335z	3756	Для ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Dlya LI27 INNC ShchGJP 8CShchJ TZLM FY5Ye F61N 37CN MUDR 7VNShch	Ham "QSY, QSY!"
24.12.11	0604z	5448	Для Ж7НЖ ЪМА5 ВТХ3 АГДТ ЪУ1Б ОСОГ БО6С Ф56Щ 9ГСА ЖБЗУ Dlya Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG BO6C F56Shch 9GSA ZhBZU	
24.12.11	1410z	3756	Для ЛЬГЙ ТШЦС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О5 ВЪЗЬ НЛЦЕ 8Ъ4О Dlya L'GJ TShchShchS VKY1 HCLF 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O	Ham "Russki shut up!"
25.12.11	0419z	3756	Для АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З ТА37 ПЫЦМ Ъ8ВМ 8МУО ТУЗР Dlya AUI8 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM Y8VM 8MUO TUZR	
25.12.11	1224z	5448	Для 5Й7Щ ВЛДХ 27ЩЬ Н1ДУ 53ОБ 78МВ А3ПС ЪМСВ ЫГЙЬ 12СИ Dlya 5J7Shch VLDH 27Shch' N1DU 53OB 78MV A3PS 'MSV YGJ' 12CI	
25.12.11	1645z	3756	Для 79АЙ ПЪХЩ 6ЕХБ ЪУЕ8 ЦПЗЬ ЩТ3О ЦИХС Ж1ТР М1СЕ 37ПМ Dlya 79AJ P'NShch 6YeNB 'UYe8 CP3' ShchT3O CIHS Zh1TR M1SYe Z7PM	
25.12.11	1921z	3756	Для ЪО6П ЙХЬЙ ЗЪ1Б НИ9В ДМЦЗ 49ФТ Ц2ЗА ЛИ27 ИННЦ ЩГЙП Dlya 'O6P JH'J Z'1B NI9V DMC3 49FT C2ZA LI27 INNC ShchGJP	Numbers read as tens
27.12.11	0347z	3756	Для 61ХЖ ЗБИЛ Л7О5 ВЪЗЬ НЛЦЕ 8Ъ4О АУИ8 2ЗЩН В2МЗ ЖСК4 Dlya 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O AUI8 2ZShchN V2MZ ZhSK4	Short form
27.12.11	0804z	5448	Для СБ7З ТА37 ПЫЦМ Ъ8ВМ 8МУО ТУЗР 5Й7Щ ВЛДХ 27ЩЬ Н1ДУ Dlya SB7Z TAZ7 PYCM Y8VM 8MUO TUZR 5J7Shch VLDH 27Shch' N1DU	
27.12.11	1248z	5448	Для 53ОБ 78МВ А3ПС ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЪХЩ 6ЕХБ ЪУЕ8 Dlya 53OB 78MV A3PS 'MSV YGJ' 12CI 79AJ P'NShch 6YeNB 'UYe8	
28.12.11	0355z	3756	Для ДМЦЗ 49ФТ Ц2ЗА ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н Dlya DMC3 49FT C2ZA LI27 INNC ShchGJP 8CShchJ TZLM FY5Ye F61N	
28.12.11	0725z	5448	Для 37ЦН МУДР 7ВНЩ Ж7НЖ ЪМА5 ВТХ3 АГДТ ЪУ1Б ОСОГ БО6С Dlya 37CN MUDR 7VNShch Zh7NZh YMA5 VTH3 AGDT 'U1B OSOG BO6C	
28.12.11	1454z	3756	Для Ф56Щ 9ГСА ЖБЗУ 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62ВВ Dlya F56Shch 9GSA ZhBZU 4RVZ 3VS' DKJ1 6I2Zh ZhD9V SJ5C 62BV	

28.12.11	1748z	3756	Для 81БР М7КС ПМВ5 ЛЬГЙ ТШЩС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О5 Dlya 81BR M7KS PMV5 L'GJ TShchShchS VKY1 HCLF 61HZh ZBIL L7O5	
29.12.11	0348z	3756	Для ВЪЗЪ НЛЦЕ 8Ъ4О АУИ8 2ЗЩН В2МЗ ЖСК4 СБ7З ТА37 ПЫЦМ Dlya V'Z' NLCYe 8'4O AUI8 2ZShchN V2MZ ZhSK4 SB7Z TAZ7 PYCM	
29.12.11	1228z	5448	Для ЪМСВ ЫГЙЬ 12СИ 79АЙ ПЪХЩ 6ЕХБ ЪУЕ8 ЦПЗЬ ЩТ3О ЦИХС Dlya 'MSV YGJ' 12CI 79AJ P'HSchch 6YeHB 'UYe8 CP3' ShchT3O CIHS	
29.12.11	1739z	3756	Для Ж1ТР М1СЕ 37ПМ ЫО6П ЙХЬЙ ЗЫ1Б НИ9В ДМЦ3 49ФТ Ц2ЗА Dlya Zh1TR M1SYe Z7PM 'O6P JH'J Z'1B NI9V DMC3 49FT C2ZA	
30.12.11	0405z	3756	Для ЛИ27 ИННЦ ЩГЙП 8ЦЩЙ ТЗЛМ ФЫ5Е Ф61Н 37ЦН МУДР 7ВНЩ Dlya LI27 INNC ShchGJP 8CSchchJ TZLM FY5Ye F61N 37CN MUDR 7VNSchch	
30.12.11	1014z	5448	Inaudible	
30.12.11	1709z	3756	Для 4РВЗ ЗВСЬ ДКЙ1 6И2Ж ЖД9В СЙ5Ц 62БВ 81БР М7КС ПМВ5 Dlya 4RVZ 3VS' DKJ1 6I2Zh ZhD9V SJ5C 62BV 81BR M7KS PMV5	Short form. Mistake on the first reading, СЙ5Ц was read as ЦЙ5Ц.
30.12.12	0440z	3756	Для ЛЬГЙ ТШЩС ВКЫ1 ХЦЛФ 61ХЖ ЗБИЛ Л7О5 ВЪЗЪ НЛЦЕ 8Ъ4О Dlya L'GJ TShchShchS VKY1 HCLF 61HZh ZBIL L7O5 V'Z' NLCYe 8'4O	
31.12.12	1208z	5448	Для СБ7З ТА37 ПЫЦМ Ы8ВМ 8МУО ТУЗР 5Й7Щ 27ЩЬ Н1ДУ 53ОБ Dlya SB7Z TAZ7 PYCM Y8VM 8MUO TUZR 5J7Shch 27Shch' N1DU 53OB	