ENIGMA 2000 NEWSLETTER

http://www.enigma2000.org.uk

'MOSKA-M' Recording and Sound Reproduction Equipment c1978

Seen here on top of instruction manual

An exhibit from the Lithuanian Museum of Genocide, image by member Anon

ISSUE 74

January 2013

http://www.enigma2000.org.uk

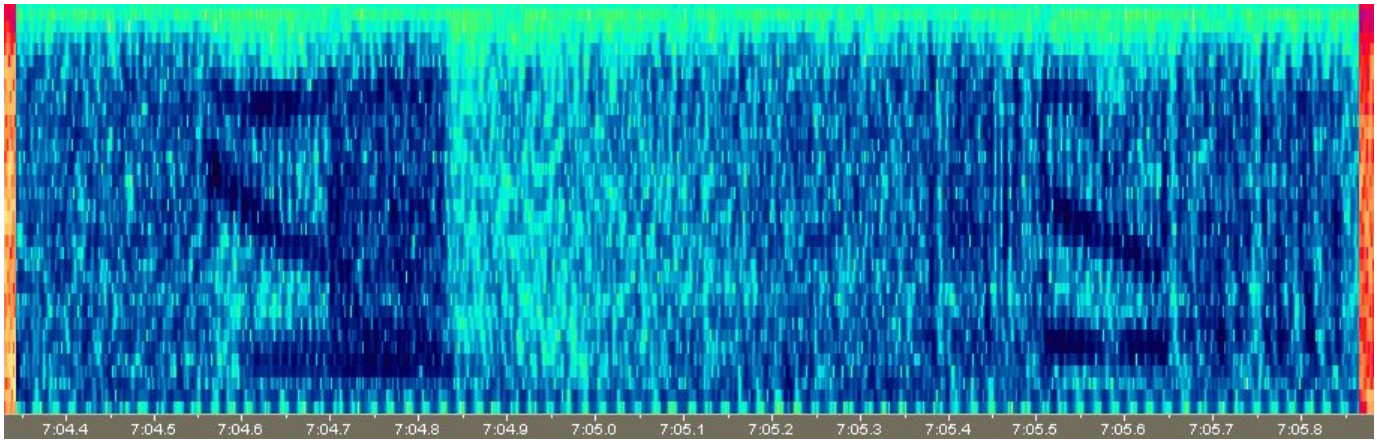
© All items within this newsletter remain the property of ENIGMA 2000 and are copyright.
See last page also.

Station Roundup.

Propagation, or rather poor propagation during November caused some problems for the reception of expected schedules in the most regular transmissions. The polytone XPA schedules c and e suffered particularly badly along with XPA2 and particularly the Friday/Saturday schedules whose usually strong signals were reduced almost to nil.

Poor propagation or not, this did not stop the rediscovery of the E06 759 schedule by MP (Marco) on Thursday 22/11. Previously heard at 0030/0130 or 0130/0230z depending on the time of year and the source of much a late weekend night for PLdn the station now starts 1505/1605z on Thurs/Fri. We'd previously thought the station had closed but it's a pointer that the recipient has had a change of circumstance. Well done Marco!

Whilst we are talking about E06 monitors will have noticed that the training messages sent first and third Thursday and Fridays seem to have some distortion. Richard put forward the theory that it could be added static to cause problems for the recipients. Well, here's the cause of that distortion, a nice rising square wave train within the characters:



E06 4760kHz 2130z 07/12 showing apparently deliberate 'static' being applied to affected character.

RNGB has also stated an interesting S06 fact; I've been copying the full S06s messages where possible for 3 or 4 years now and after some traffic analysis I've found that not many messages are new! And this includes E17z
In fact the same old ones are churned out year after year. So what purpose can this achieve? Maybe it is all dummy traffic? Richard's report more than adequately illustrates this fact.
We'd welcome some thoughts here please.

Few changes towards the end of the past year.

E06 continues much as ever with the odd 'new' schedule being noted. Of great interest was the previous 759 schedule heard regularly Sat/Sun morings 0030/0130z turning up at 1505z 22/11 on a 13MHz freq. An interesting one indeed that hasn't been tracked into December suggesting a time/day change or perhaps a hoax? E06 is known to be 00 or 30M past the hour.

E07 continues much the same with its mish-mash of sometimes good, or usually poor signals. Surprise find was the 0800z Tue slot in the 15 and 20MHz bands.
An interesting observation from RNGB: " It appears there has been a change in Family 3 message protocol. Messages are no longer being repeated. When you hear a null don't expect the same on next transmission."

E07a continues with one new message in December.

E17z has been reported once for each frequency, sad really when others are known to be monitoring it but don't post their logs.

E25 The 6MHz freq reported Nov and Dec and occasionally the 9MHz offering. More help on this one please.

S06 and variants Lots of activity and lots of coverage for Novemeber, some for December.

V02a Reports from a variety of UK Monitors and a couple from US Monitors; given the mass of US members one would have hoped for more.
The new mode HM01 seems to have replaced the entire V02a 0700/0800z schedule as well as the earlier Morse schedules.

V13 Activity reported by Ary

V21 Report from US Monitoe

V22 Logs and other information

New Mode heard

On Saturday 17th November PLdn staggered out of his bed and climbed to the third floor of his house where the shack is to check his auto recordings of the 0500 and 0600z M08a, something he had experienced the day before. This was also heard in the US on other freqs and it apparently heralded the arrival of a mixed mode transmission from the Cuban DGI. Looking for XPA c he missed the V02a 0700z transmission but caught the 0800z. Like the expected M08a sendings it was six groups, each followed by SK01, the RDFT transmission.
The same occurred and the ident HM01 allotted to it; the story is repeated in greater detail after this section and all logs as received by E2k are listed in HM01 section.. You'll see that for a new mode it's been particularly busy.

Cuban Mixed Mode [HM01].

On Saturday 17th November yours truly did his usual intercept of M08a and V02a. Equally interspersed were MCW [0500z only], SK01 and of course V02a.
At the same time I received an email from a member Anon who was like following and he had done some forensic monitoring whilst I had been chasing the elusive XPA c previously denied me by poor propagation.

My logs[for want of elsewhere to put them]:

Transmissions as copied:

(M08a expected)

5800kHz0600z	17/11 MCW not heard; V02a 34061 37841 77571 then SK01 repeating	Strong	PLdn	SAT
5898kHz0505z	17/11 MCW: 73876 08480 30050, V02a 1 5 478 then SK01, repeating	Fair	PLdn	SAT

(V02a expected)

5883kHz0709z	17/11 i/p '5061' then SK01 repeating; ended 0751z	PLdn	SAT
5898kHz0752z	17/11 V02a and SK01 in progress	PLdn	SAT

And the forensics:

It seems the Cubans have come up with a new hybrid SK01/V02a format. At first it just seemed to be one of their usual simultaneous transmissions but as I listened for a while I thought I heard 5FGs repeated and I subsequently confirmed that.

Below is my analysis of what was transmitted at 0600 on 5800kHz and then 0700 on 5883kHz.

It apparently starts with an SK01 transmission and then one group of V2a appears, then another SK01 but the whole thing is actually well choreographed as follows.

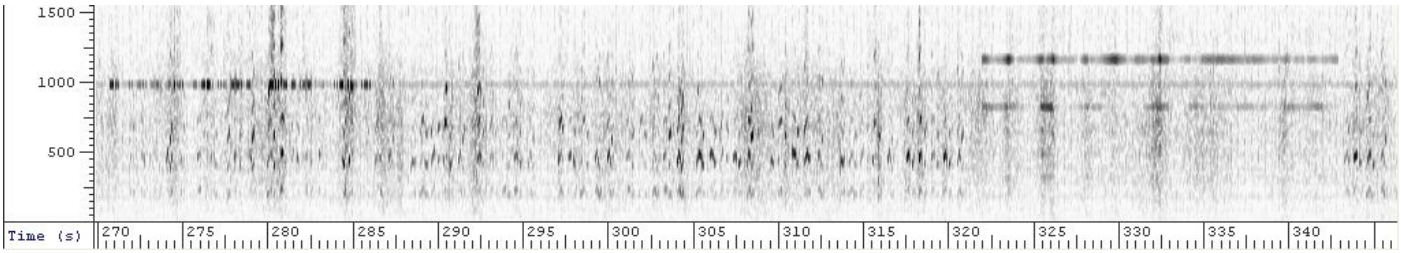
The V02a without the SK01 repeats as follows 27911 59151 90871 34061 39841 77571 then a short pause then 27911 59151 and so on.

Note that all 5FGs end in 1.

Then we get the following

SK01 lead in tone "27911"
23 second SK01 TX "59151"
31 second SK01 TX "90871"
20 second SK01 TX "34061"
20 second SK01 TX "39841"
28 second SK01 TX "77571"
28 second SK01 TX "27911"
23 second SK01 TX "59151"

This goes around 6 times then goes back to just the 6 5FGs for a while then the whole process starts again.



Cuban Mixed Mode 5898z 0500z 17/11 Sends, MCW, V02a and SK01

Note that the sequence of 5FGs is maintained even with the differing lengths of SK01 TX there seems to have been quite a lot of planning put into this new format.
[*Tnx Member Anon*]

On Sunday 18th November 2012 at 0900z I opened the autofiles from my system to note the same message system.

5898kHz 0502z 18/11:

Carrier up: 0502z
Speech: 0506z consisting of six header groups

34061 39481 77571 27911 59151 90871 and repeated until 0507z, each cycle of numbers taking ~25s to send.

Header Group + SK01 started at 0508z and continued until 0558z when it had verbally sent 34061 which was preceded by 90871 + SK01 for 25s

5898kHz 0502z schedule durations as follows:

Starting at 0508z	**Repeating at 0511z**
27911 + SK01 28s	27911 + SK01 28s
59151 + SK01 35s	59151 + SK01 35s
90871 + SK01 25s	90871 + SK01 25s
34061 + SK01 24s	34061 + SK01 24s
39481 + SK01 34s	39481 + SK01 34s
77571 + SK01 32s	77571 + SK01 32s

The next file was:

5800kHz 0600z 18/11

Again the same Header Groups but this time the start group has changed:

27911 59151 90871 34061 39481 77571; ~ 25 secs to send and repeated for 2m50s,

The sending of Header Groups remained the same as did the above durations. The Header Group + SK01 ended at 0641z with a repetition of the Header Groups 27911 59151 90871 34061 39481 77571 for four minutes [0645z] when a low 'rumble,' possibly data tones was heard until 0649z. The carrier went down at 0653z

This was followed by:

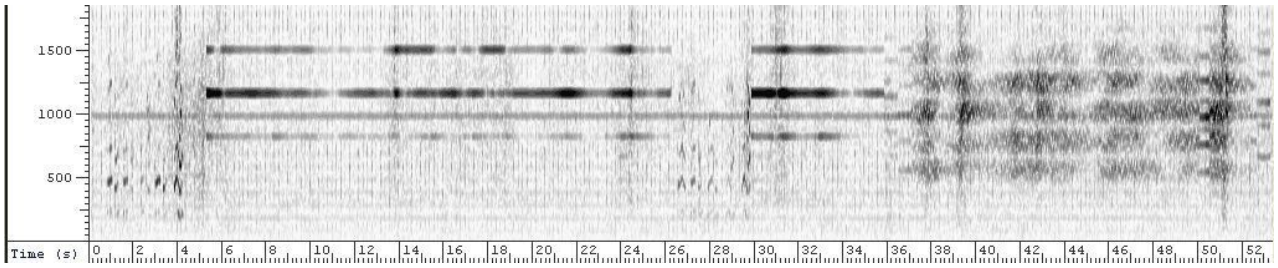
5883kHz 0704z 18/11

Groups as above; Header Group + SK01 started with 77571 and repeated until last group heard was 59151 at 0755z .
The timings and Header Groups remained the same as the previous sendings.

Not unexpectedly, the next file was:

5898kHz 0800z 18/11

Header Groups are exactly as before; the first Header Group + SK01 sent was 77571 and times recorded matched those earlier recorded during the 0500z schedule. When my auto recorder switched off at 0859z the schedule was continuing, the last Header Group heard being 77571.



5883kHz 0704z 18/11 90871 + SK01[~25s] and followed by 34061 + SK01[~24s]

It would appear that this is a new mixed mode; I suspect the MCW sent on Saturday at 0500z was an error and that this mode will continue as V02a style voice announced header group plus the SK01 mode.

The use of the figure '9' in V02a and probably in M08a designated a proper message with content; without the message was a null.

It will be noticed that out of six Header Groups sent four are active messages if this '9' rule still holds.

That the Header Group is spoken suggests a bespoke program to decode the eventual message with the header being typed in to tell the program whether to bother to start. Perhaps the presence of the figure '1' at the end of any Header Group suggests the message is a dud with that changing when that final number is some other value.

Obviously it is too early to offer an in depth assessment but this Cuban Mixed Mode, ENIGMA 2000 designation: '**HM01**' will need studying further as can be seen by this follow on by member anon:

I believe the first transmissions may have been some kind of test and now perhaps they have gone "operational" with the following

8180kHz0800z 22/11[86485 46605 36162 69641 51905 68185]
6768kHz1600z 22/11[86485 46605 36162 69641 51905 68185]

Analysis and reasoning. At 1630z we had the following

86485 46605 36162 69641 51905 68185 Repeated for 3:30

20 Second Lead in Tone
86485 36 second SK01 transmission
46605 21 second SK01 transmission
36162 28 second SK01 transmission
69641 36 second SK01 transmission
51905 23 second SK01 transmission
68185 21 second SK01 transmission

The 6 messages were repeated 5 times then the transmission ended.

Each repeat of the 6 messages took approximately 3 minutes 20 seconds In total the TX lasted for 20 minutes and 30 seconds approximately.

The reasoning for thinking this may be "operational" was that a similar scenario was seen at 1600z although I was attempting to get recordings started and DIGTRX working and missed a portion of the TX. As this schedule is only present for 1hour the Primary TX would be expected at 1600z and the secondary at 1630z and this is what appears to have taken place. The previous transmissions continued in a loop for almost the whole hour before switching to a new frequency mid-transmission.

A further development with HM01 was released to us on Saturday 24/11

Today [23/11] we had

HM01 6768kHz 1600z 23/11 86484 46604 36161 10494 51904 68184
HM01 8097kHz 1800z 23/11 86484 46604 36161 10494 51904 68184
HM01 8097kHz 1900z 23/11 86484 46604 36161 10494 51904 68184

If we compare the last two days

22/11 86485 46605 36162 69641 51905 68185
23/11 86484 46604 36161 10494 51904 68184

Based on this the last digit of the group increments downwards by 1 on subsequent days. When it gets to 1 a new 5FG appears (group 4 in this case)

In addition it was noted again that the repeated 5FGs before the 20 second lead in tone last for just under 3 minutes 30 seconds. V02a repeats for 3 minutes before the
messages. The timing for HM01 allows for the full set of 6 groups to be repeated 8 times.

Below is the complete list of file names transmitted.
This file includes the hex dumps from the 6 files it is named HM01 Hex Dumps.txt. First look suggests completely random characters.Further amalysis is needed here.

HM01 5883kHz 24/11 0700z [86484 46604 36161 10494 51904 68184] Repeated 8 Times

20 Second Lead in Tone

86484 36 second SK01 transmission 43569687.TXT 981 bytes
46604 21 second SK01 transmission 79286097.TXT 406 bytes
36161 28 second SK01 transmission 53857296.TXT 657 bytes
10494 36 second SK01 transmission 65740676.TXT 1020 bytes
51904 23 second SK01 transmission 07380811.TXT 530 bytes
68184 21 second SK01 transmission 63614985.TXT 410 bytes

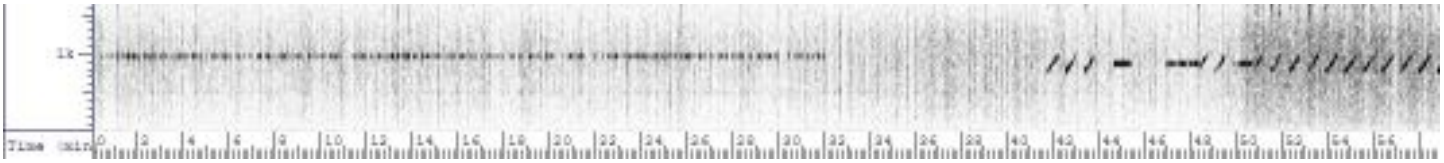
Repeated 5 times

Thanks to all contributing members.

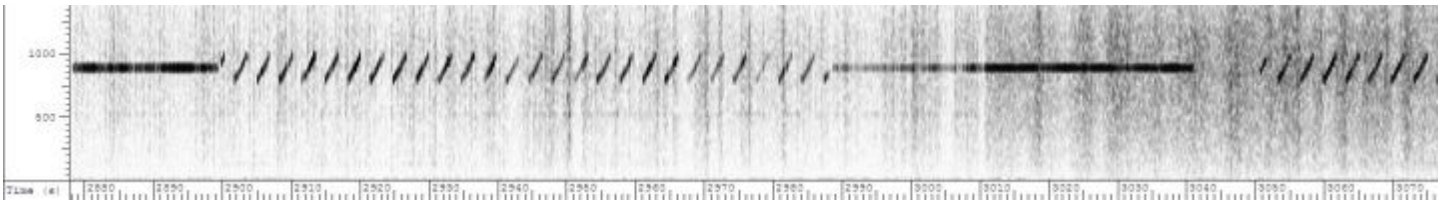
In addition to this Mixed mode it appears that the Cuban DGI is also using/playing with a mazeilka look alike.

Look at this M08a log and the sonograms that follow on:

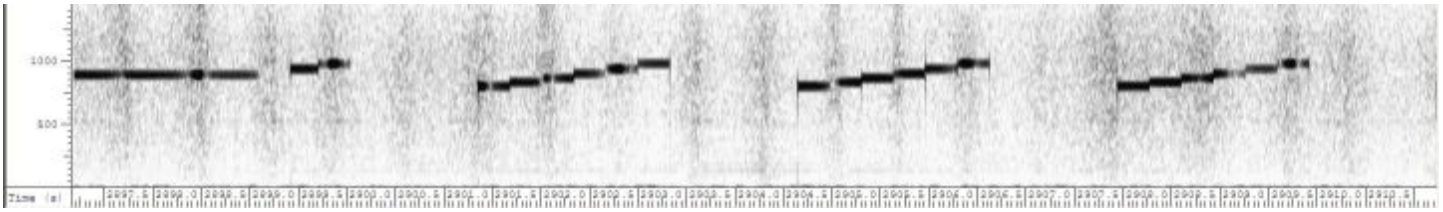
5800kHz 0600z 03/12[85141 17771 21212 LG60000 ARARAR SK]0632z Strong. Followed by X06 like sigs PLdn MON X06 12345 + carrier in between.



M08a Morse sending followed by X06 look alike



Detail of X06 lookalike, note carrier [840Hz]



X06 lookalike note incomplete pulse train after carrier; like seen befor carrier. Otherwise pulse train as 123456

5800kHz0642z	03/12 23456 123456 rptd 123456 12345 carrier 45 123456 carrier etc. Carrier 840Hz	PLdn	MON
16115kHz0915z	02/12[12534] Fair. Ending 0926z	PLdn	SUN

For interest the pulse train lasted ~1.986s, each tone being 330ms duration. The tones sent were: 813, 845, 875, 910, 950 and 990Hz The carrier was 900Hz

All the HM01s so far are on frequencies ending with a 5 or 0. Furthermore the Cubans for the most part are using freqs within 2kHz of traditionally used freqs.

9063 now 9065
17478 now 17480
11532 now 11530
16178 now 16180

The 1600z on 6768kHz seems to have disappeared I suspect it has moved elsewhere.

Since this new mode has appeared it appears that the Cuban transmissions are not as plentiful as they once were with the 0500, 0600, 0700 and 0800z M08a and V02a seeming being affected. There doesn't seem to be very much Cuban stuff coming from our plentiful US members, in fact it would appear that we are beginning to carry non-posting dead weight again as just the few bear the brunt.

Morse Round Up

M01 Tue 06 Nov produced two of the worst transmissions monitored for some considerable time, with the numerous errors on the 1800z transmission surpassed only by the chaos and confusion that followed at 2000z. For a station where errors are routine (and we believe, deliberately introduced), this far exceeded their usual performances.

M01b Reported only as single freq transmissions in Nov. with all the expected // freqs silent. Has M01b stopped simulcast transmissions?

M08a Lots of activity from the Cubans with some very strange mixtures of signals and modes - Details in full elsewhere in this issue.

M12 Regular transmissions continue with no real surprises. Schedules have settled into an unusually steady pattern this year with few changes. The M12a transmissions along with the MCW transmissions have not been heard for some while, and appear to have ceased.

M23 Following the Sep. & Oct. flurry of activity and freq changes, M23 has quietened down with little activity heard since.

M24a A rare M24a transmission caught by Guy (GD) in the early morning of 26 Dec to ID's 980 & 960.

M51 Thanks to regular contributor Spectre we have details of a clash between M51 and G11 on Sun 09 December. This is one of two freq clashes logged over this period with the other occurring between M12 and V02a on Thu 15 Nov.

M89 JPL continues to make new discoveries about this very active network. As well as many changes, new freqs and pairings experienced over the last two months, he has found one of the stations operating on no less than four simultaneous freqs.

DRV8 usually operates on 3797//4512 but on 03 Dec JPL found it using 3776 as well, but put this down to a possible spurious or harmonic emission. Then in early evening, 07 Dec traffic was sent on 3776 while 3797 & 4512 continued to send the round slip loop. Later 3776 was silent but 6773 had been added in use simultaneously with 3797 & 4512.

Finally at 2315z the station was heard simultaneously on 3797, 4512, 6773 & 8040 showing that the network has at least four transmitters in use.

Since then there has been various combination of these freqs in use at different times on this call at different times of the day.

M97 Still sending consecutive msgs, but eight months of monitoring data has failed to show any definite schedule for this station. Charts included for anyone who wants to try and work it out!

German Report

Report from ENIGMA2000's German Branch (E2Kde) and X06 team

Hallo liebe Freunde und Kollegen der deutschen Branche und des X06 Teams (Hello dear friends and colleagues of the German Branch and X06 team)

Another year over, and a new one just begun.

Unfortunately, the last report didn't appear in the regular newsletter, but as a special file. Now I know better about the new "deadline format", so that you will find this report in EN74 as expected, this time with a TV film, which contained G08, and with the usual X06 news.

Film with G08 in German public TV

In ZDF, the 2nd German public TV programme, there came an interesting criminal (agents') film called "Deckname Luna" (Code name Luna), which was presented in 2 parts and contained G08 sometimes; the 1st part came on Nov 5th, the 2nd one 3 days later. The scenes with G08 showed the practical use of communication between the agents.

The film plays in the former GDR. At the background of the East-West "competition" about the first men on the moon in the 60s, the story tells about Lotte, who dreams of flying into space since her childhood. To reach this target in reality, she makes a pre-military training, hoping for a career as a cosmonaut. Her live changes, as the Stasi pays attention to her: As an agent, Lotte has to observe her uncle, who is living in the West and working as a scientist for rockets/missiles…..

We recommend all of you, who missed the film: Please go via www.amazon.de and look for "Deckname Luna". Many thanks to OM Karl-HeinzE2Kde for the information and OM tiNGE2Kde (Thomas) for posting on our E2Kde platform at sigint-group.org.

X06 team

We have a new member, Mark in UK, who already contributed with some logs to this section.

X06 Mazielka (1C) logs section

Date	Day	UTC	Freq	Scale	Monitor	Comments
20121114	Wed	1335-1338	10840	134265	Fritz/CH	Monitored in progress, R
20121121	Wed	0940-1037	16190	123456	Manolis/GR, Kopf, RNGB	Strong X06c with longer breaks(1)
20121128	Wed	1205-1207	18660	621543	RNGB	Monitored i. p. on new freq, R
20121126	Mon	0950	16115	215346	Mark/UK	Shortie i. p. (30 secs), G
20121202	Sun	0915-0926	16115	612534	PLdn	Fair, R
20121203	Mon	0642	5800	123456	PLdn	X06c
20121203	Mon	0735-0755	5060	123456	RNGB	X06c i. p.
20121203	Mon	1201-1215	12100	123456	Mark	3rd X06c of the day
20121204	Tue	1200-1209	17470	216354	Kopf	Fair – new freq, R
20121204	Tue	1233	14501	154263	RNGB	Unusual scale on this freq, R(2)
20121205	Wed	1100-1137	9600	1-----	Kopf	Single tone
20121206	Thu	1403	11440	215346	RNGB	I. p., M498
20121207	Fri	1104-1105	14570	324615	RNGB	I. p., G
20121207	Fri	1112	16218	(3)	RNGB	I. p., new freq, R
20121217	Mon	0645-0614	8100	123456	RNGB	X06c i. p.
20121217	Mon	0804(4)	16190	123456	RNGB	X06c i. p. with S9+
20121219	Wed	0804-0834	20170	123456	RNGB	X06c i. p. with S9+ on unusual freq
20121219	Wed	ca. 0800	12217	1-—6--	RNGB	X06b shortie
20121219	Wed	ca. 0800	11300		RNGB	Single tone – shortie
20121220	Thu	1229-1231	14650	215346	Hans/NO	Weak/fair – i. p., M499(5)
20121227	Thu	1455-1503	13979	215346	RNGB	I. p., M500
20121227	Thu	1506-1516	11125	216354	RNGB	I. p., G
20121228	Fri	1203-1206	14863	215346	Mark, Hans	Fair in NO, G

1) Half an hour of intro with 2 pulses in USB (0900-0930).
2) I. p., end time not monitored.
3) Too short to identify scale.
4) End time not monitored.
5) Sounded like a "double transmitter".

Again, many interesting logs, this time more catches of the variants X06b and c. Many thanks to all the contributors to the logs section.

In 2013 we have some ideas for activities in the German Branch, which are not only planned, but also in production. You'll find more in the next E2K issue.

I wish you a merry christmas and a happy new year.

Jochen Schäfer, KopfE2Kde and X06 Teamkopf

Morse Stations

All frequencies listed in kHz. Freqs are generally +- 1k
This is a representative sample of the logs received, giving an indication of station behaviour and the range of times/freqs heard. These need to be read in conjunction with any other articles/charts/comments appended to this issue.

UNID CW

4970	0715z onwards	06 Dec	D4S7 working L3Z6 (but could only hear D4S7) Hand sent, fair signal. *Sending mainly 5 fig groups plus a few Q codes. Also sent OPEL 311. Maybe Russian Mil?*	RNGB	THU
5249	1558 - 1604z	17 Dec	CW UNK (In tfc) (Remote Tuner Siberia) (In tfc - 1558z) UHU AR UAA AR .TU AR IAV AR VRI AR TDG AR (Silent - 1601z) *The only other station that comes to mind which uses 3 fig gps is MVC03.*	JPL	MON
6005	0845z-08:46z	13 Nov	CW mode : KG5P (x3) de SLPT (x3) QTC K	DanAR	TUE

M01/1 XIV MCW, hand (197 sched for Nov - Feb). Will change to M01/2 sched ID 463 for Mar - Apr.

November 2012:

BR reports that the transmissions on Tue 06 Nov were the worst he had encountered in several years of regular monitoring of this station. We are used to errors on this schedule - believed to be a training net for the M01 group, but these two transmissions contained a huge number of errors.

The 1800z sending had additional fig 5's added to grps along with several 4 fig and 6 fig grps, while the 2000z exceeded this with a jumbled mass of confused grps consisting of some 3 fig, 4 fig or 6 fig grps - and ending with a 7 fig grp. In addition some grps were not repeated while others had a totally different set of numbers sent as a repeat.

Either the station was putting some students to some serious testing or the batch of locally distilled vodka was rather stronger than usual that day...

4490	2000z	01 Nov	'197' 971 30 = =	. . . .	...LG 43675 = = Good, V.fast. Started 2005z IP. Jumbled msg	BR	THU
	2000z	06 Nov	'197' 802 30 = =	81952...	...LG 6136173? = = Strong, med-fast. Riddled with errors	BR	TUE
	2000z	08 Nov	'197' 725 30 = =	31581...	...LG 06657 = = Good, fast	BR	THU
	2002z	13 Nov	'197' 800 30 = =	22751 39604 ?? etc...	Sending garbage during call-up	RNGB	TUE
	2000z	15 Nov	'197' 921 30 = =	48862...	...LG ..... = = Weak, slow, Poor copy. DK 921 or 931	BR	THU
	2000z	20 Nov	'197' 391 30 = =	01847...	...LG 40597 = = Strong, fast. Grp14 sent once only.	BR	TUE
	2000z	22 Nov	'197' 708 30 / /	.....	Very poor copy. // sent in place of = = (As 1800z transmission)	BR	THU
	2000z	27 Nov	'197' 273 30 = =	28543...	...LG 46350 = = Strong, fast. Repeat errors noted	BR	TUE
	2000z	29 Nov	'197' 318 30 / /	.....	...LG 07278 / / Weak, fast. Poor copy	BR	THU
5320	1800z	01 Nov	'197' 102 30 = =	20820...	...LG 05617 = = Fair, med-fast. Difficult copy with errors noted	BR/HFD	THU
	1800z	06 Nov	'197' 757 30 = =	18158...	...LG 30821 = = Good, med-fast. Numerous errors throughout	BR	TUE
	1800z	08 Nov	'197' 476 30 = =	34428...	...LG 53743 = = Good, fast	BR	THU
	1800z	13 Nov	'197' 929 30 = =	91714 46661 65662 91994 etc...		RNGB	TUE
	1800z	15 Nov	'197' 527 30 = =	23419...	...LG 03891 = = Good, slow	BR	THU
	1800z	20 Nov	'197' 749 30 = =	68055...	...LG 35035 = = Good, fast. With errors. Grp03 sent once only	BR	TUE
	1800z	22 Nov	'197' 932 30 / /	86391...	...LG 71193 / / Fair, Started fast slow by grp06 with QSB.	BR	THU
	1800z	27 Nov	'197'	V.weak sig. No useful copy		BR	TUE
	1800z	29 Nov	'197' 999 30 / /	26489...	...LG 38884 / / Good, fast. // in place of = = (Also 2000z)	BR	THU
5465	0700z	04 Nov	'197' 346 30 = =	02813...	...LG 04179 = = Fair, fast. High noise. Corrected error at start	BR	SUN
	0704z	11 Nov	'197' 517 30 = =	62755...	...LG 67971 = = Fair, med-fast. Late start, short call-up.	BR	SUN
	0700z	18 Nov	'197' 863 30 = =	04268...	...LG 16574 = = Good, fast. Corrected error grp20. Good CW	BR	SUN
	0700z	25 Nov	'197' 828 30 / /	33968...	...LG 54837 = = Fair/weak, fast. Poor copy with errors.	BR	SUN
	0700z	25 Nov	'197' 727 30 =	33868...		HFD	SUN
5810	1500z	03 Nov	'197'		Fast, hand-sent	HFD	SAT
	1500z	24 Nov	'197' 149 30 = =	96587...	...LG 94523 = = Strong, fast. Corrected error grp07. Good CW	BR	SAT

December 2012:

4490	2000z	04 Dec	'197' 697 30 / /	50601...	...LG 22319 / / Strong, slow. Errors noted, some corrected	BR	TUE
	2000z	06 Dec	'197' 721 30 = =	44749 35385 46044 56623 85773 etc...	Numerous errors. Faster from grp09	RNGB	THU
	2000z	11 Dec	'197' 251 30 / /	52234...	...LG 21728 / / Strong, V..slow. 5:45 preamble	BR/HFD	TUE
	2000z	13 Dec	'197' 738 30 = =	. . . . .	...LG 00964 = = Strong, fast. Excellent CW. Missed grp01!	BR	THU
	2003z	18 Dec	'197' 219 30 = =	53920...	...LG 43219 = = Strong, fast. Multiple errors.	BR	TUE
	2000z	20 Dec	'197' 981 30 = =	69850...	...LG 01416 = = Strong, fast. Several noted errors.	BR	THU
	2000z	25 Dec	'197' 481 30 / /	89229...	...LG 2206 / / Strong, slow. Several errors. Only 29 grps	BR/CB/GD	TUE
	2000z	27 Dec	'197' 221 30 = =	09647...	...LG 21766 Strong, fast. Multiple errors.	CB	THU
5320	1800z	04 Dec	'197' 395 30 = =	70276...	...LG 71882 = = Good, slow. Two repeat errors noted	RNGB	TUE
	1800z	06 Dec	'183' 183 30 = =	52841...	...LG 28318 = = Strong, fast. Used DK as call .Numerous errors.	BR/GD	THU
	1800z	11 Dec	'197' 316 30 / /	14398...	...LG 72244 / / Strong, V.slow. DK & GC sent once only	BR	TUE
	1800z	13 Dec	NRH			BR	THU
	1800z	18 Dec	- - 070 30 / /	46159...	...LG 96639 / / Good, slow. No call up. Grp01 46159 46150	BR/CB	TUE
	1800z	20 Dec	'197' 586 30 = =	97039...	...LG 36670 = = Strong, V.fast. AS sent in call-up / Poor copy	BR/GN	THU
	1800z	25 Dec	'197' 503 30 / /	51867...	...LG 73926 / / Strong, slow. False start followed by full msg.	BR/CB/GD	TUE
	1800z	27 Dec	'197' 837 30 = =	67934...	...LG 35366 = = Strong, fast. Corrected error on final grp.	CB	THU

5465	0700z	02 Dec	'197' 173 30 = =	87829... ...LG 54514 = = Strong, fast. Excellent CW	BR	SUN
	0700z	09 Dec	'197' 386 30 = =	95216... ...LG 25447 = = Good, med-fast. One noted error.	BR	SUN
	0700z	16 Dec	'197' 218 30 = =	0351 . ...LG 35048 = = Strong, fast. Corrections to grps01 & 23	BR	SUN
	0700z	23 Dec	'197' 867 30 = =	21628... ...LG 74533 = = Good, V.fast, multiple errors	BR	SUN
	0700z	30 Dec	'197' 429 30 / /	88564... ...LG 94164 / / Strong, V.fast. No starting DK / GC.	BR	SUN
5810	1500z	01 Dec	'197' 261 30 = =	54074... ...LG 54074 = = Strong, fast. Corrected error in end DK	BR	SAT
	1500z	08 Dec	'197' 291 30 = =	V Weak sig. No useful copy	BR	SAT
	1500z	15 Dec	'197' 324 30 = =	90636... ...LG 36356 = = Good, fast. Grp27 sent once only.	BR	SAT
	1500z	22 Dec	'197' 205 30 = =	. . . .LG 59516 = = Weak, V.fast, poor copy	BR	SAT
	1500z	29 Dec	'197' 131 30 = =	89265... ...LG 20189 = = Good, Med-fast. Perfect sending!	BR	SAT

M01a (formerly end of month TXs, now random)
No reports

M01b

November 2012:

2405	2110z	02 Nov	'610' 357 30 = 14665	(NRH on 3180kHz)	HFD	FRI
2435	1910z	05 Nov	'853' 357 30 = 14665 94079 96528 ... 84666 51415 = = 1926z		tiNG	MON
3160	2041z	01 Nov	'382' 357 30 = 14665... etc	(NRH 2485kHz)	HFD/RNGB	THU
3197	2003z	16 Nov	'866' 357 30 = 14665 94079 96528 82573 etc	(NRH 2653kHz)	HFD/RNGB	FRI
3205	2015z	05 Nov	'375' 357 30 = 14665 94079 96528 2032z	(NRH on 2427kHz)	HFD/tiNG	MON
3519	1910z	05 Nov	'853' 357 30 = 14665	(NRH on 2435kHz)	HFD	MON
3545	1932z	01 Nov	'910' 357 30 = 14665 94079 96528 82573... etc	(NRH 2466kHz)	HFD/RNGB	THU
5310	2003z	02 Nov	'866' 357 30 = 14665... etc	(NRH on 2655kHz or 3195kHz)	RNGB	FRI
5810	1615z	16 Nov	'158' 183 30 = 53951 77074 37315 66905.....28318		HFD/RNGB	FRI

December 2012:

3545	1934z	06 Dec	'910' 313 31 = 65773 69236 45643 69720 etc...		RNGB	THU
5938	1605z	13 Dec	'159' 542 30 = 55622, BC QRM		HFD	THU
6778	0732z (IP)	26 Dec	357 25 = MCW in progress at 0732. Very strong signal but poor modulation. *Op made a hash of the ending, so I think it was 61920 = 357 25 000*		RNGB	WED
	0730z (IP)	27 Dec	179 30 = CW in progress. Very slow. Ended 38514 = 179 179 30 30 000		RNGB	THU
	0718z	28 Dec	'137' 215 30 = 98196 00079 ... ...LG 38514 Ended 0730z CW Slow / Med-fast		BR	FRI

M01c
No reports

M03 III ICW, some CW

4828	1115z	13 Nov	273/30 = 96559.....18418 (very weak)	RNGB	TUE
	1115z	21 Nov	650/00	RNGB	WED
	1115z	28 Nov	650/00	RNGB	WED
	1320z	11 Nov	437/00	HFD	SUN
	1115z	11 Dec	272/00	HFD	TUE
	1115z	12 Dec	650/00	HFD	WED
	1115z	19 Dec	652/33 = 55360 87?22.... (very weak)	RNGB	WED
	1115z	27 Dec	657/34 = 13403 09806 48862 38650 56024.....etc	RNGB	THU
	1320z	06 Dec	43?/38 = 00026 46502 33319 09108 etc... (missed the call-up)	RNGB	THU
	1320z	20 Dec	437/00	RNGB	THU
	1320z	23 Dec	432/31	GD	SUN
5358	1535z	13 Nov	798/00	RNGB	TUE
	1535z	17 Nov	798/00	HFD	SAT
	1535z	20 Nov	790/31 = 11030 59598 01641 13798.....28066	RNGB	TUE
	1535z	27 Nov	798/00	RNGB	TUE
13911	1420z	25 Nov	879/00	RNGB	SUN
	1420z	21 Dec	878/37 = 37888 23734 62065 57805 99849.....47074	RNGB	FRI
	1420z	23 Dec	879/00	RNGB	SUN
	1420z	30 Dec	877/34	GD	SUN

M03c (Stutter groups)
No reports

M03d
No reports

M03e
No reports

M08a XVIII ICW / CW, some MCW
These are the frequencies logged during the period, to be read in conjunction with Mark Slaten's charts.

November 2012:

5800	0600z	01 Nov	[86282 07822 11251] Strong	PLdn	THU
	0600z	02 Nov	[**12345 67890**] Very weak by 0534z	PLdn	FRI
	0600z	04 Nov	[64032 75662 08081] LG 31745 ARARAR SK 0634z Fair,QRM3 QSB2 (34m14s)	PLdn	SUN
	0600z	05 Nov	[30801 43222 28251] LG 03556 ARARAR SK 0535z Strong, QSB2 (34m55s)	PLdn	MON
	0600z	06 Nov	[08882 28831 32352] LG 66435 ARARAR SK 0535z Fair, QSB2 (34m57s)	Ggs/PLdn	TUE
	0600z	08 Nov	[81601 12331 25762] LG 25762 ARARAR SK 0634z Fair, QSB2	Ggs/PLdn	THU
	0600z	09 Nov	[58831 60661 73002] LG 60082 ARARAR SK 0624z (34m24s)	PLdn	FRI
	0600z	10 Nov	[56582 17632 21051] Fair to start, QSB3 to nil by end	PLdn	SAT
	0600z	11 Nov	[85151 06781 28421] LG 32850 ARARAR SK 0634z Fair (34m12s)	PLdn	SUN
	0600z	12 Nov	[74530 86002 00321] Fair, QSB3	PLdn	MON
	0600z	13 Nov	[40652 51382 64711] LG 11477 ARARAR SK 0634z Strong, QSB2 (34m25s)	PLdn	TUE
	0600z	15 Nov	[71421 01462 14701] Strong, QSB3	PLdn	THU
	0602z	16 Nov	[66281 77821 83041] LG 41256 ARARAR SK 0634z Strong (34m20s)	PLdn	FRI
	0600z	17 Nov	**Mixed-mode transmission sent. (See report on this new format, now designated HM01)**	PLdn/Westt1us/Ggs	SAT
	0600z	19 Nov	[03582 14221 27651] LG 04662 ARARAR SK 0634z Strong, QSB2 (34m18s)	Ggs/PLdn	MON
	0601z	20 Nov	[07821 18551 22882] LG 18336 ARARAR SK 0635z Strong, QSB2 (33m57s)	Ggs/PLdn	TUE
	0600z	22 Nov	[73682 84327 07742] Strong	PLdn	THU
	0600z	23 Nov	[55082 68311 42651] LG 16006 ARARAR SK 0635z Strong (34m31s)	PLdn	FRI
	0600z	23 Nov	[42651 55082 68311] End 0634z	Ggs	FRI
	0600z	26 Nov	Weak, no copy	PLdn	MON
	0600z	30 Nov	[58481 60221 73542] LG 07751 ARARAR SK 0634z Fair, QSB2 (34m19s)	PLdn	FRI
5898	0500z	01 Nov	[86282 07822 11251] Strong	Ggs/PLdn	THU
	0504z	02 Nov	[**12345 67890**] 1m30s break then repeated until 0558z, QSB to nil	Ggs/PLdn	FRI
	0500z	03 Nov	[14512 26242 30671] End 0534z	Ggs	SAT
	0500z	04 Nov	[64032 75662 08081] LG 02854 ARARAR SK 0534z Fair,QRM3 QSB2 (34m14s)	PLdn	SUN
	0506z	05 Nov	Late start, into msg ...46216 10485 etc LG 58856 ARARAR SK 0534z Fair, QSB2 (34m19s)	PLdn	MON
	0500z	06 Nov	NRH (0600z 5800z transmission only)	PLdn	TUE
	0506z	08 Nov	[81601 12331 …..] Fair, late start, one cycle of 1st ID, into message	PLdn	THU
	0506z	09 Nov	[**12345 67890**] Fair	PLdn	FRI
	0504z	10 Nov	Into msg, 2nd msg ID: 17632 3rd Msg ID unclear, LG 72708 0534z Weak, QSB2	PLdn	SAT
	0505z	11 Nov	[85151 06781 28421] LG 43174 ARARAR SK 0539z Fair, Late start	PLdn	SUN
	0504z	12 Nov	Late start into msg, 2nd ID 86002 3rd 83221 LG83223 ARARAR SK 0534z Strong, QSB2	PLdn	MON
	0503z	15 Nov	Into msg, late start. Strong, QSB3	PLdn	THU
	0505z	16 Nov	[66281 77821 83041] LG 61158 ARARAR SK 0539z Strong, QSB2	PLdn	FRI
	0505z	17 Nov	**Mixed-mode transmission sent. (See report on this new format, now designated HM01)**	PLdn/Westt1us/Ggs	SAT
	0500z	19 Nov	[03582 14221 27151] End 0540z	Ggs/PLdn	MON
	0506z	22 Nov	[????? 84322 07741] End 0534z Burst onto air in mid message at 0506z. Intro. missed	Ggs	THU
	0506z	22 Nov	Late start, straight in msg, first groups: 01742 82466 00370 Strong	PLdn	THU
	0510z	23 Nov	Late start, first grp heard: 02341 Strong End 0555z	Ggs/PLdn	FRI
	0504z	26 Nov	Late start into message, weak, no copy	PLdn	MON
	0508z	30 Nov	Late start (i/p) 4 == 66344 08870 etc LG [4f only] 9262 0517z Fair, QSB3	PLdn	THU
6785	1900z	12 Nov	[85302 08631 12152]	Westt1us	MON
	1900z	29 Nov	In progress simultaneous with V02a	Westt1us	THU
6854	2200z	29 Nov	[i.p.] 2233z CW (slower than 8009kHz) QSA2	MG	THU
6932	2100z	21 Nov	End 2134z	Ggs	WED
	2100z	29 Nov	[i.p.] 2133z CW weak	MG	THU
7319	1000z	05 Nov	End uk	Ggs	MON
7519	2200z	21 Nov	[????? **51572** 64801] End 2234z Note*; Grp **51572** also in 9153kHz 0700z session*	Ggs	WED
7526	2200z	20 Nov	QRM-5 End 2227z	Ggs	TUE
7554	2000z	20 Nov	End 2034z	Ggs	TUE
	2000z	23 Nov	[38272 40812 53241] End uk	Ggs	FRI
7578	1340z	12 Nov	Repeatedly sending **12345 67890** still in progress after expected end time.	Westt1us	MON
8009	2300z	21 Nov	[42482 25732 38151] End 2327z	Ggs	WED
	2200z	23 Nov	[34562 47881 51322] End uk	Ggs	THU
	2200z	29 Nov	[i.p.] 2227z CW QSA3 QRN2	MG	THU
8096	1400z	02 Nov	End uk	Ggs	FRI
	1400z	26 Nov	[63232 76661 80082] QSA5 QRN4	HT	MON
	1800z	12 Nov	[----- 01111 15532] No Morse heard until 1812z	Westt1us	MON
	1900z	12 Nov	[87672 01111 15532]	Westt1us	MON

9063	0800z	02 Nov	[03431 16852 20281] QSA5	HT	FRI
8135	2300z	23 Nov	[? ? 37402] End 2327z	Ggs	FRI
9153	0700z	21 Nov	[**51572** 62212 75641]	Ggs	WED
12180	1900z	01 Nov	[67581 71812 84241] End uk	Ggs	THU
13380	2000z	29 Nov	In progress, expected V02a at this time	Westt1us	THU

December 2012:

Included in this listing are a few logs that should perhaps be listed under the new Hybrid Mode section. However, since they commenced with an M08a transmission, they have been included for reference. It seems that the Cuban's are still experimenting with all types of mixed transmissions at present!

5800	0602z	02 Dec	[44744 15866 rest inaudible] Fair, QRM3/4	PLdn	SUN
	0600z	03 Dec	[85141 17771 21212] LG 60000 ARARAR SK 0632z Strong. **Followed by X06 like sigs** *X06 12345 + carrier in between [840Hz].*	PLdn	MON
	0557z	03 Dec	[85141 17771 21212] End 0632z	Ggs	MON
	0600z	07 Dec	[36121 48751 51172] LG 50114 ARARAR SK 0632z Fair (32m11s)	PLdn	FRI
	0600z	09 Dec	[13882 24521 37852] LG 14862 ARARAR SK 0632z Strong, Note grp order (32m13s)	PLdn	SUN
	0600z	11 Dec	[44422 65252 78571] LG10824 0632z Strong, started early	PLdn	TUE
	0600z	13 Dec	[78841 80671 03011] End uk	Ggs	THU
	0618z	13 Dec	[nnnnn nnnnn 08011] LG56626 ARARAR SK 0622z Strong, partial intercept only	PLdn	THU
	0600z	15 Dec	[03572 13521 28541] LG44421 ARARAR SK 0632z Fair, QSB3 (32m21s)	PLdn	SAT
5898	0500z	02 Dec	[**12345 67890** repeated 5 times followed an extra **67890**] with that entire sequence repeating	westt1us	SUN
	0506z	02 Dec	[**12345 67890** rpts **67890** every 5th group] LG **67890** Fair, QRM2	PLdn	SUN
	0502z	03 Dec	[85141 17771 21212] LG 53710 ARARAR SK 0535z Strong (34m45s)	PLdn	MON
	0505z	09 Dec	[13882 37852 24521] LG 63456 ARARAR SK 0537z Strong, QSB2, Note grp order (31m32s)	PLdn	SUN
	0500z	11 Dec	NRH	PLdn	TUE
	0506z	13 Dec	Late start, partial intercept. Strong	PLdn	THU
	0500z	15 Dec	[03572 13521 28541] LG nnn15 ARARAR SK 0532z Fair, QSB3 at end (32m06s)	PLdn	SAT
6785	1900z	27 Dec	Started as V02a in error	Anon	THU
6854	2200z	27 Dec	Fast delivery which should have been on 8009kHz, switched to slower format at 2212z	Anon	THU
7554	2000z	27 Dec		Anon	THU
7579	1258z	19 Dec	[88531 00361 10381] End uk	Ggs	WED
8009	2200z	27 Dec	Slow delivery which should have been on 6854kHz, switched to faster format at 2212z	Anon	THU
8095	1400z	24 Dec	In progress	Anon	MON
	1400z	25 Dec	In progress	Anon	TUE
8135	2300z	06 Dec	In progress, good signal.	westt1us	THU
9063	0858z	12 Dec	[78212 80042 03371] End uk	Ggs	MON
			This is an SK01 Freq. but M08A came on the air @ 0858z. Right in the middle of a grp the transmission stopped and there was an SK01 data burst - followed by a data burst every 5 mins. until 0954z when Radio Havana Cuba came on air for about 2 minutes then disappeared.		
9112	1000z	07 Dec	[81221 05241 18561] QSA5 faint WEAFAX signal mixed in	HT `	FRI
10432	0901z	07 Dec	[81221 05241 18561] QSA5	HT	FRI
12180	1900z	06 Dec	Expected V02a on this frequency	westt1us	THU
13380	2000z	04 Dec	In progress, expected V02a	westt1us	TUE

M08c
No reports

M08d
No reports

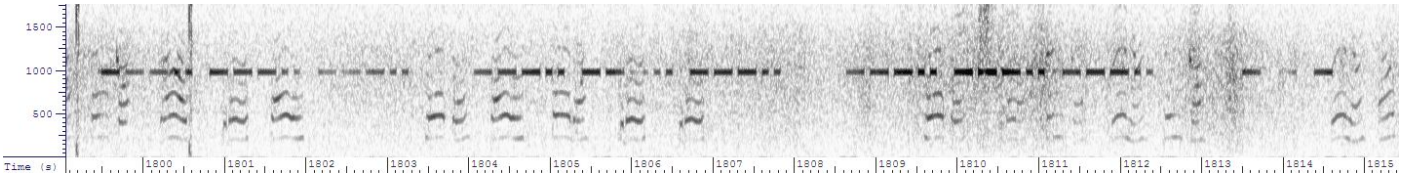
M12 IB ICW, some MCW / CW, short 0. Reuses many freqs year on year.

Every once in a while we find two numbers stations clashing on the same or adjacent frequencies. This phenomenon has always been a part of the numbers mystery and, given the choice of frequencies available seems to occur more frequently than would be expected by chance.

V02a uses 5883kHz on a regular basis and occasionally one of the M12 scheds - using the ID 888, comes up on 5884kHz causing both signals to clash. By switching to AM mode the M12 CW can be heard with a clear 1kHz note over the V02a carrier wave.

PLdn noted this clash on Thu 15 Nov at 0730z and has captured a sonogram of the event.

5883	0730z	15 Nov	[888 888 888 000] Fair over V02a (2m13s)	PLdn	THU



Thu 15 Nov 2012 0730z V02a clashes with M12 (Note M12 CW sending IC call 888) *Courtesy PLdn*

An audio sample of this event can be heard here: V02a & M12 Clash

M12 Monthly Logs

To be read in conjunction with Brian's included monthly charts. New ID's may be only for the month/sched shown, but not necessarily unknown , all are clearly identified on Brian's charts. The reason for their reuse, some after long periods of time, is unknown.

November 2012:

4617/5317/---	0530/0550/0610z	05 Nov	638 000	FN	MON
	0530/0550/0610z	19 Nov	638 000	FN/HFD	MON
	0530/0550/0610z	26 Nov	638 000	FN	MON
5429/4629/---	2200/20/40z	07 Nov	460 000	FN/HFD	WED
5429/4629/4029	2200/20/40z	21 Nov	460 1 (565 69) 95599 08424 81846.....77145 000 000	FN/RNGB	WED
	2200/20/40z	28 Nov	460 000	FN	WED
5884/6884/---	0730/0750/0810z	01 Nov	888 000	FN	THU
	0730/0750/0810z	08 Nov	888 000	FN	THU
	0730/0750/0810z	15 Nov	888 000	FN	THU
	0730/0750/0810z	22 Nov	888 000	FN/HFD	THU
	0730/0750/0810z	29 Nov	888 000	FN	THU
8047/6802/5788	1700/20/40z	07 Nov	463 1 (2773 91) 07558...	FN/HFD	WED
	1700/20/40z	14 Nov	463 1 (6115 79) 58702...	FN	WED
	1700/20/40z	21 Nov	463 1 (4165 74) 84024...	FN	WED
	1700/20/40z	28 Nov	463 1 (4583 61 27906...	FN	WED
8112/7552/6792	1500/20/40z	07 Nov	106 1 (269 53) 96137... (Repeat of 05 Nov 1300z)	FN/HFD	WED
	1500/20/40z	14 Nov	106 1 (300 49) 27648... (Hardly audible on 8112 - QRM digital stn)	FN	WED
	1500/20/40z	21 Nov	106 1 (470 35) 26316... (Repeat of 19 Nov 1300z)	FN	TUE
	1500/20/40z	28 Nov	106 1 (932 57) 32559... (Repeat of 26 Nov 1300z)	FN	WED
9162/8062/---	1310/30/50z	08 Nov	104 000 New ID	FN	THU
	1310/30/50z	10 Nov	104 000	FN	SAT
9162/8062/7462	1310/30/50z	15 Nov	104 1 (482 65) 77647...	FN	THU
	1310/30/50z	17 Nov	104 1	HFD	SAT
	1310/30/50z	22 Nov	104 000	FN	THU
	1310/30/50z	24 Nov	104 000	FN	SAT
	1310/30/50z	29 Nov	104 000	FN	THU
9176/7931/6904	1700/20/40z	01 Nov	257 1 (9955 90) 69882...	FN/HFD	THU
	1900/20/40z	01 Nov	257 1 (7015 49) 13597...	FN	THU
	1700/20/40z	05 Nov	257 1 (6033 74) 75569...	FN	MON
	1800/20/40z	05 Nov	257 1 (1132 54) 51826...	FN	MON
	1900/20/40z	05 Nov	257 1 (4917 94) 84567...	FN	MON
	1700/20/40z	08 Nov	257 1 (5087 73) 88755...	FN	THU
	1900/20/40z	08 Nov	257 1 (5641 63) 59630...	FN	THU
	1700/20/40z	12 Nov	257 1 (4622 77) 09838...	FN	MON
	1800/20/40z	12 Nov	257 1 (2518 49) 41026... Weak signal on 9176kHz	FN	MON
	1900/20/40z	12 Nov	257 1 (6359 95) 31095... Only 6904kHz signal readable	FN	MON
	1700/20/40z	15 Nov	257 1 (2088 50) 94287...	FN	THU
	1900/20/40z	15 Nov	257 1 ..... Too weak for copy of txt. NRH 6904kHz	FN	THU
	1700/20/40z	19 Nov	257 1 (7215 74) 31824...	FN	MON
	1800/20/40z	19 Nov	257 1 (5865 43) 06535...	FN	MON
	1900/20/40z	19 Nov	257 1 (9886 98) 15152... Weak signal on 9176kHz	FN	MON
	1700/20/40z	22 Nov	257 1 (6372 67) 13192...	FN	THU
	1900/20/40z	22 Nov	257 1 Very weak sigs on all freqs	FN	THU
	1700/20/40z	26 Nov	257 1 (7297 71) 14855...	FN	MON
	1800/20/40z	26 Nov	257 1 (6939 59) 31507...	FN/PP	MON
	1900/20/40z	26 Nov	257 1 (1282 97) 89293... Weak signal on 9176kHz	FN	MON
	1700/20/40z	29 Nov	257 1 (1337 93) 65948...	FN	THU
	1900/20/40z	29 Nov	257 1 (2201 66) 25610... NRH 9176kHz & very weak on 7931kHz	FN	THU
9187/8057/7697	1300/20/40z	05 Nov	106 1 (269 53) 96137..	FN	MON
	1300/20/40z	19 Nov	106 1 (470 35) 26316 33155 etc...	FN/HFD/RNGB	MON
	1300/20/40z	26 Nov	106 1 (932 57) 32559... (Call-up interrupted twice on 9187kHz)	FN	MON
10282/9286/---	1830/1850/1910z	04 Nov	221 000	FN/HFD	SUN
10282/9286/8186	1830/1850/1910z	07 Nov	221 1 (770 153) 77671...	FN	WED
	1830/1850/1910z	11 Nov	221 1 (770 153) 77671... (Poor sigs) (Repeat of 07 Nov 1910z)	FN	SUN

10286/9286/8186	1830/1850/1910z	18 Nov	221 1 (708 219) 97647...	FN	SUN
	1830/1850/1910z	21 Nov	221 1 (570 187) 29087... (Weak signal on 10286kHz)	FN	WED
	1830/1850/1910z	25 Nov	221 1 (570 187) 29087... (Repeat of 21Nov 1830z)	FN	SUN
	1830/1850/1910z	28 Nov	221 000 NRH on 10286kHz	FN	WED
10343/9264/8116	1700/20/40z	01 Nov	124 1 (3889 76) 75190...	FN/HFD	THU
	1800/20/40z	01 Nov	124 1 (6406 48) 00147...	FN	THU
	1830/1850/1910z	06 Nov	124 1 (6418 59) 44920...	FN/HFD	TUE
	1700/20/40z	08 Nov	124 1 (8766 72) 03962... Weak and noisy signal on 10343kHz	FN	THU
	1800/20/40z	08 Nov	124 1 (3244 55) 59708...	FN	THU
	1800/20/40z	09 Nov	124 1 (8707 85) 27129... (NRH on 9264kHz - QRM digital stn)	FN	FRI
	1830/20/40z	13 Nov	124 1 (4038 59) 28617...	FN	TUE
	1700/20/40z	15 Nov	124 1 (1253 73) 99374... (8116kHz weak signal)	FN	THU
	1800/20/40z	15 Nov	124 1 .... Too weak for copy of txt	FN	THU
	1800/20/40z	16 Nov	124 1 (8265 80) 28759...	FN	FRI
	1830/1850/1910z	20 Nov	124 1 (5597 69) 81914...Very weak signal on 10343kHz	FN	TUE
	1700/20/40z	22 Nov	124 1 (5724 70) 45216... Weak sigs except on 8116kHz	FN	THU
	1800/20/40z	22 Nov	124 1 This sked too weak, not copied	FN	THU
	1800/20/40z	23 Nov	124 1 (934 54) 07444...	FN	FRI
	1830/1850/1910z	27 Nov	124 1 NRH on 10343kHz & 9264kHz, very weak signal 8116kHz	FN	TUE
	1700/20/40z	29 Nov	124 1 ... QRM5 OTHR	FN	THU
	1800/20/40z	29 Nov	124 1 (2339 82) 13869... Very weak sig on10343kHz	FN	THU
	1800/20/40z	30 Nov	124 1 (5287 100) 44432... NRH 10343kHz & WEak on 9264kHz)	FN	FRI
10806	0650z	02 Nov	687 1 (5907 97) 69195 94913.....78294 (nothing further found)	RNGB	FRI
	(There were no further transmissions heard in this slot - looks like one of the elusive 'one-off ' transmissions)				
11435/10598/9327	1830/1850/1910z	07 Nov	938 1 (698 63) 1658?... Very weak signal - possible errors	FN/HFD	WED
	1830/1850/1910z	21 Nov	938 1 (5520 52) 39249... Weak sigs except on 9327kHz	FN	WED
	1830/1850/1910z	28 Nov	938 1 (7867 70) 43437... Weak sigs on 11435kHz	FN	WED
12162/11566/10711	1600/20/40z	05 Nov	546 1 (2440 93) 42474...	FN/HFD	MON
	1600/20/40z	12 Nov	546 1 (5220 78) 72051...	FN	MON
	1600/20/40z	19 Nov	546 1 (1153 84) 45725 62512 etc...	FN/RNGB	MON
	1600/20/40z	26 Nov	546 1 (934 54) 07444...	FN	MON

December 2012:

4457/5157/---	0530/0550/0610z	03 Dec	417 000	FN	MON
	0530/0550/0610z	10 Dec	417 000	FN/HFD	MON
	0530/0550/0610z	17 Dec	417 000	FN	MON
	0530/0550/0610z	24 Dec	417 000	FN	MON
5284/5784/---	0730/0750/0810z	06 Dec	277 000	FN/HFD?RNGB	THU
	0730/0750/0810z	13 Dec	277 000	FN	THU
	0730/0750/0810z	20 Dec	277 000	FN/RNGB	THU
	0730/0750/0810z	27 Dec	277 000	FN/RNGB	THU
5312/4512/---	2200/20/40z	05 Dec	350 000	FN	WED
	2200/20/40z	12 Dec	350 000	FN/HFD	WED
	2200/20/40z	19 Dec	350 000	FN	WED
	2200/20/40z	26 Dec	350 1 (261 97) 82121...	FN	WED
5784/7584/---	0600/20/40z	01 Dec	751 000	FN	SAT
	0600/20/40z	08 Dec	751 000 (NRH on 7584kHz)	FN	SAT
	0600/20/40z	15 Dec	751 000	FN	SAT
	0600/20/40z	22 Dec	751 000	FN	SAT
7509/6909/5709	1500/20/40z	05 Dec	214 1 (617 83) 40964... (Repeat of 03 Dec 1300z)	FN	WED
	1500/20/40z	12 Dec	214 1 (480 211) 63676... (Repeat of 10 Dec 1300z)	FN/HFD	WED
	1500/20/40z	19 Dec	214 1 (793 145) 36518... (Repeat of 17 Dec 1300z)	FN	WED
	1500/20/40z	26 Dec	214 1 (439 69) 99944... (Repeat of 24 Dec 1300z)	FN	WED
8047/6802/5788	1700/20/40z	05 Dec	463 1 (8901 83) 56347...	FN	WED
	1700/20/40z	12 Dec	463 1 (1142 44) 51721...	FN	WED
	1700/20/40z	19 Dec	463 1 (1965 62) 14714 70313... etc	FN/RNGB	WED
	1700/20/40z	26 Dec	463 1 (9119 96) 18657..	FN	WED
9168/7968/---	1830/1850/1910z	02 Dec	194 000	FN	SUN
9168/7968/7468	1830/1850/1910z	05 Dec	194 1 (958 231) 12946... QRM BC on 7468kHz	FN	WED
	1830/1850/1910z	09 Dec	194 1 (958 231) 12946... (Repeat of 05 Dec 1830z)	FN/HFD	SUN
	1830/1850/1910z	12 Dec	194 000	FN	WED
	1830/1850/1910z	16 Dec	194 000	FN	SUN
	1830/1850/1910z	19 Dec	194 1 (194 115) 32758...	FN	WED
	1830/1850/1910z	23 Dec	194 1 (194 115) 32758... (Repeat of 19 Dec 1830z)	FN	SUN
	1830/1850/1910z	26 Dec	194 1 (316 81) 11349... (9168kHz NRH & BC QRM on 7468kHz)	FN	WED
	1830/1850/1919z	30 Dec	194 1 (316 81) 11349... (Repeat of 26 Dec 1830z)	FN	SUN

9176/7931/6904	1700/20/40z	03 Dec	257 1 (2129 74) 42130... (Strong digital signal on 6904kHz)	FN	MON
	1800/20/40z	03 Dec	257 1 (8703 66) 25151...	FN/HFD	MON
	1900/20/40z	03 Dec	257 1 (7760 45) 94649	FN/HFD	MON
	1700/20/40z	06 Dec	257 1 (9807 90) 00776... (Strong digital signal on 6904kHz)	FN	THU
	1900/20/40z	06 Dec	257 1 (3301 46) 97385...	FN/RNGB	THU
	1700/20/40z	10 Dec	257 1 (2204 60) 44251...	FN	MON
	1800/20/40z	10 Dec	257 1 (1140 49) 53133... (Weak signal on 9176kHz)	FN	MON
	1900/20/40z	10 Dec	257 1 (7902 82) 66854...	FN	MON
		QRM on 7931kHz from CIS tactical. station E1MZ, which is absolutely not impressed by M12 powerplay.			
	1700/20/40z	13 Dec	257 1 (1460 93) 46602... (QRM from digital signal on 6904kHz)	FN	THU
	1900/20/40z	13 Dec	257 1 (6264 50) 43905...	FN	THU
	1700/20/40z	17 Dec	257 1 (2017 72) 06323...	FN	MON
	1800/20/40z	17 Dec	257 1 (2831 56) 75728...	FN	MON
	1900/20/40z	17 Dec	257 1 (7929 87) 56087... (NRH on 9176kHz & very weak 7931kHz)	FN	MON
	1700/20/40z	20 Dec	257 1 (1260 56) 91327... (Weak signal & QRM on 6904kHz)	FN	THU
	1900/20/40z	20 Dec	257 1 (3697 49) 79889...	FN	THU
	1700/20/40z	24 Dec	257 1 (2371 70) 04967... (QRM from digital signal on 6904kHz)	FN	MON
	1800/20/40z	24 Dec	257 1 (1668 55) 63042... (QRM from digital signal on 6904kHz)	FN	MON
	1900/20/40z	24 Dec	257 1 (3107 88) 38336... (Weak signal 9176kHz & QRM on 6904kHz)	FN	MON
	1700/20/40z	27 Dec	257 1 (7591 64) 23301...	FN	THU
	1900/20/40z	27 Dec	257 1 (9124 42) 95108... (Weak signal 9176kHz)	FN	THU
9223/8193/7463	1300/20/40z	03 Dec	214 1 (617 83) 40964...	FN/HFD	MON
	1300/20/40z	10 Dec	214 1 (480 211) 63676...	FN	MON
	1300/20/40z	17 Dec	214 1 (793 145) 36518...	FN	MON
	1300/20/40z	24 Dec	214 1 (439 69) 99944...	FN/GD	MON
	1300/20/40z	31Dec	214 000 Strong signal	CB/RNGB	MON
10343/9264/8116	1830/1850/1910z	04 Dec	124 1 (9337 51) 67213...	FN	TUE
	1700/20/40z	06 Dec	124 1 (7604 78) 60090 15460.....09380	FN/RNGB	THU
	1800/20/40z	06 Dec	124 1 (3549 72) 95542...	FN/HFD	THU
	1800/20/40z	07 Dec	124 1 (6169 76) 73927... (Weak sig on 10343kHz)	FN	FRI
	1830/1850/1910z	11 Dec	124 1 (4906 61) 89838... (Very weak signal on 10343kHz)	FN	TUE
	1700/20/40z	13 Dec	124 1 (3016 72) 39439...	FN	THU
	1800/20/40z	13 Dec	124 1 (1026 68) 04180... (Weak sig on 10343kHz)	FN	THU
	1800/20/40z	14 Dec	124 1 (2388 95) 23274...	FN	FRI
	1830/1850/1910z	18 Dec	124 1 (2935 70) 92923... (Weak sig on 10343kHz & very weak 9264kHz)	FN	TUE
	1700/20/40z	20 Dec	124 1 (3293 75) 83389...	FN	THU
	1800/20/40z	20 Dec	124 1 (9265 44) 91098... (Weak signal on 10343kHz)	FN	THU
	1800.20/40z	21 Dec	124 1 (929 51) 06204...	FN	FRI
	1830/1850/1910z	25 Dec	124 1 (9686 51) 62559...	FN	TUE
	1700/20/40z	27 Dec	124 1 (8368 79) 28657...	FN	THU
	1800/20/40z	27 Dec	124 1 (7526 77) 24278... (Very weak sig on 10343kHz & weak 9264kHz)	FN	THU
	1800/20/40z	28 Dec	124 1 (9304 87) 71585...	FN	FRI
11435/10598/9327	1830/1850/1910z	05 Dec	938 1 (2985 67) 62641 ... (Very weak signal on 11435kHz)	FN	WED
	1830/1850/1910z	12 Dec	938 1 (..... ..) . . . . (Very weak signal on all freqs - unreadable)	FN	WED
	1830/1850/1910z	19 Dec	938 1 (7666 63) 84773... (Very weak on 11435kHz & weak 10598kHz)	FN	WED
	1830/1850/1910z	26 Dec	938 1 (2501 69) 72148...	FN	WED
12162/11566/10711	1600/20/40z	03 Dec	546 1 (7314 90) 78360...	FN	MON
	1600/20/40z	10 Dec	546 1 (133 49) 49118...	FN	MON
	1600/20/40z	17 Dec	546 1 (929 51) 06204...	FN	MON
	1600/20/40z	24 Dec	546 1 (6100 79) 22491...	FN	MON
/16269	0947z	13 Dec	(IP) (ends 0952z, possibly ID 582)	FN	THU
13569/14869/16269	1010/30/50z	20 Dec	582 000 Sked now 1 hour later New sched	FN	THU
	1010/30/50z	23 Dec	582 000 New sched	FN	SUN
	1010/30/50z	27 Dec	582 1 (571 67) 78600... ...LG 20130	FN/RNGB	THU
	1010/30/50z	30 Dec	582 1 (571 67) 78600... (Repeat of 27 Dec 1010z)	FN	SUN

M12a (two message variant)
No reports

M14 IA MCW / ICW / MCWCC, short 0

4636	1820z	13 Nov	186 (636 15)	HFD	TUE
476	1920z	25 Dec	748	HFD	TUE
5430	0800z	22 Dec	171 (721 15) = 63720	HFD	SAT
5561	0900z	01 Dec	171 (721 15) = 63820 13572 94274 12395.....72901	RNGB	SAT
	0900z	22 Dec	171 (721 15) = 63820 13572 94274 12395.....72901	HFD/RNGB	SAT
5785	0700z	13 Nov	178 00000	HFD	TUE
5895	0800z	13 Nov	178 00000	HFD	TUE
6769	1800z	02 Nov	269 00000	RNGB	FRI
5561	0900z	24 Nov	171 (700 15) = 64724 39817 36190 43871.....12347 Fair with QSB	RNGB	SAT
12188	1300z	08 Nov	262 (441 69) = 82806... Strong signal	FN	THU

M14a (two message variant)
No reports

M18 IC Time strings, UTC+4

3803	1957z	17 Nov	[0057 0057 0057 ...] "The Clock" for once with strong signal	FN	SAT
	1955z	28 Nov	[0055 0055 0055 ...] "The Clock"	FN	WED
	1639z	04 Dec	[2341 2341 2341 ...] "The Clock"	FN	TUE
	1900z	08 Dec	[0207 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	SAT
	1753z	09 Dec	[0059 etc...] (In Progress - sending Time strings- Long zero) (Remote Tuner Russia)	JPL	SUN
	1809z	09 Dec	[0114 etc...] (In Progress - sending Time strings- Long zero) (Remote Tuner Siberia)	JPL	SUN
	2052z	09 Dec	[0358 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Sweden)	JPL	SUN
	0027z	10 Dec	[0732 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	MON
	0306z	10 Dec	[0805 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Russia)	JPL	MON
	1603z	10 Dec	[2105 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	MON
	1911z	10 Dec	[0014 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	MON
	2116z	10 Dec	[0216 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Russia)	JPL	MON
	1533z	11 Dec	[0142 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	TUE
	1834z	11 Dec	[0442 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	TUE
	2020z	11 Dec	[0628 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Russia)	JPL	TUE
	0035z	12 Dec	[1044 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	WED
	1159z	12 Dec	[0120 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	WED
	1657z	12 Dec	[0708 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	WED
	2214z	12 Dec	[1224 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Sweden)	JPL	WED
	1029z	13 Dec	[0039 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	THU
	1600z	13 Dec	[1959 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Siberia)	JPL	THU
	2034z	13 Dec	[0034 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Russia)	JPL	THU
	1915z	14 Dec	[0921 0921 0921 ...] (once again peculiar numbers)	FN	FRI
	1640z	21 Dec	2040 2040 204...]	FN	FRI
	1948z	21 Dec	[0049 etc...] (In Progress - sending Time strings - Long zero) (Remote Tuner Russia)	JPL	FRI

M23 O ICW

The large amount of activity experienced during the Sept. and October period had died down by the end of October leaving just an hourly dash being transmitted by the station. These hourly dashes continued on 5345kHz through to the end of October and were also monitored on Thu 01 Nov through until Mdt,.

On Fri 02 Nov the dashes were missing when the freq was monitored from mid-morning, and have failed to appear since.

On Sat 10 Nov, a new set of freqs was discovered by Richard (RNGB) who reported the following;

5873//6961	1700 (IP) - 1713z	10 Nov	'246' (R15)	RNGB	SAT
	1758 - 1813z	10 Nov	'246' (R15)	RNGB	SAT

This sched was sent from Sat 10 Nov to Tue 13 Nov, and was not heard on Wed 14 Nov which coincidentally was the start of a few days of very poor conditions on the bands. On Sun 18 Nov the hourly dash was noted but no transmissions were heard. This trademark hourly dash continued daily from Sun 18 Nov until Tue 27 Nov.

On Wed 28 Nov the dashes failed to appear and have not been heard despite constant monitoring on 5873kHz.

M24 IA MCW / ICW / MCWCC (high speed version of M14), short 0

November 2012:

12188	1300z	01 Nov	262 (143 57) = 71902 71844 72728 04411... etc	RNGB	THU
	1300z	13 Nov	262 (579 60) = 71295 72840 74834 10457.....13929	RNGB	TUE
	1300z	15 Nov	262 (340 58) = 78257 57478 48036 30927 10066.....68669	RNGB	THU
			Ended at 1313z. Looks like same message as at 14721kHz at 1235z but ending was different. Very strange.		
14721	1235z (IP)	15 Nov	- - - (579 58) = Ended at 1248z with 68669 = 579 58 00000	RNGB	THU
	1230z	22 Nov	262 (483 50) = 67555 59509 17345 80476.....00292	RNGB	THU
14721/12188	1230/1300z	20 Nov	262 (971 60) = 43256 66869 69423 72246.....45418	RNGB	TUE
	1230/1300z	27 Nov	262 (709 56) = 79132 13096 89747 94704.....77215	RNGB	TUE

December 2012:

10470	1300z	06 Dec	980 (134 58) = 67405 95588 59675 40708.....68806	RNGB	THU
13389	1230z	18 Dec	980 (723 61) = 14851 82955 48315 98558 88200.....77703	RNGB	TUE
13389/10463	1230/1300z	27 Dec	980 (412 53) = 23229 55347 81791 68483 25395.....89208	GD/RNGB	THU
13399/10463	1230/1300z	20 Dec	980 (451 66) = 39603 88139 86095 20421 80737.....48359	RNGB	THU

M24a as M24 with 2nd addressee hand keyed, rarely intercepted.

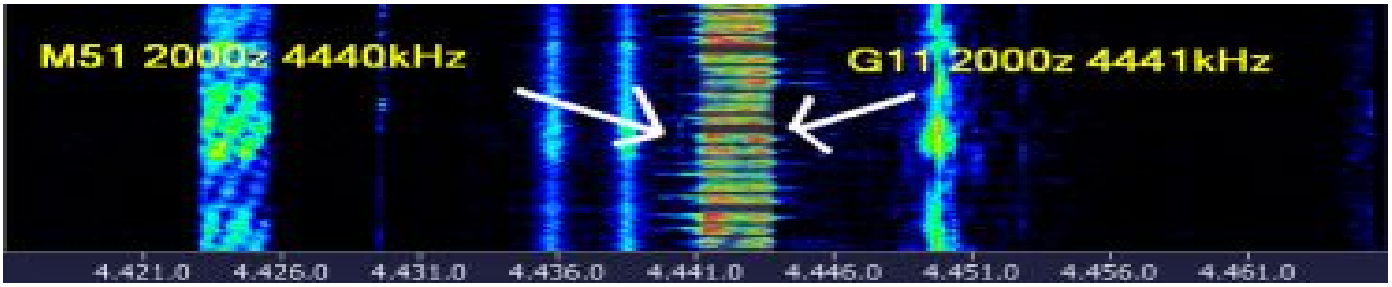
11118	0830z	26 Dec	980 (567 32) = 960 (421 33) =	GD	WED

M45/1 XIV (Nov-Feb) MCW, slow, hand, paired gps Will change to M45/3 for Mar/Apr on 4555//4955 at 1802z clg '555'

4025	1802z	01 Nov	'525' 248 32 = 41087 (NRH on 3525kHz)	HFD	THU
	1802z	13 Nov	'525' 248 32 = 41087 52398 39258 etc...	RNGB	TUE

M51 XlX

3881//6825	0315 - 0345z (IP)	06 Nov	5 ltr grps Msgs NR03 N 06 04:21:53 1984 & NR04 N 06 04:32:02 1984 etc...	BR	TUE
	1305 - 1455z (IP)	07 Nov	5 ltr grps Msgs NR39 N 07 14:16:25 1984 - NR54 N 07 15:49:45 1984 etc...	BR	WED
	0848 - 1056z (IP)	27 Dec	[bt nr 07 d 27 09:59:29 1984 bt] Fair//Very strong	PLdn	THU
4440	2012 - 2018z (IP)	09 Dec	[NR 71 D 04 21:12:38 1984 BT URUDA ... ZPSDT BT] Fair QRN4 QSB3	Spectre	SUN



Sun 09 Dec 2012 2000z M51on 4440kHz clashing with G11 on 4441kHz *Courtesy Spectre*

7436	1600 - 1607z (IP)	17 Dec	[NR 90 D 18 17:03:10 1984 BT YUJYM ... YTSSK BT] Strong BCQRM4 QSB2 *(Note M51 was found transmitting on 7436kHz, my radio was set to record the S06s 1600z 7436kHz schedule, S06s wasn't heard.)*	Spectre	MON
8016	1505 - 1630z (IP)	25 Dec	Still going strong at 1630z when I dropped him. Msgs of 100 x 5L groups about 25wpm.	CB	TUE

M51a (FAV22) Daily Mon - Fri, Sun & some Sats. See NL 72 for details

M51a changed times on Sun 28 Oct with daylight saving. Scheds now 1hr later

3881//6825	1230 - 1309z	05 Nov	Lecon 21-1/1 Codé, 21-1/2 Clair, 21-1/3 Codé, 21-1/4 Clair.	(420 grps/hr)	BR	MON
	1230 - 1258z	06 Nov	Lecon 22-1/1 Codé, 22-1/2 Clair, 22-1/3 Codé, 22-1/4 Clair.	(600 grps/hr)	BR	TUE
	1230 - 1303z	07 Nov	Lecon 23-1/1 Codé, 23-1/2 Clair, 23-1/3 Codé, 23-1/4 Clair.	(720 grps/hr)	BR	WED
	1230 - 1255z	08 Nov	Lecon 24-1/1 Codé, 24-1/2 Clair, 24-1/3 Codé, 24-1/4 Clair.	(840 grps/hr)	BR	THU
	1230 - 1302z	09 Nov	Lecon 25-1/1 Code, 25-1/2 Clair, 25-1/3 Code, 25-1/4 Clair.	(960 grps/hr)	BR	FRI
	1230 - 1254z	10 Nov	Lecon 24-1/1 Codé, 24-1/2 Clair, 24-1/3 Codé, 24-1/4 Clair.	(840 grps/hr)	BR	SAT
	1240z	13 Nov	Lecon 02-1/2 Clair, 02-1/3 Code	(600 grps/hr)	ATC	TUE
	1240z	20 Nov	[Vitesse.....] Fair Note: Extract from a book		ATC	Tue
	1229z	22 Dec	[VVV VVV DE FAV22 QLH 3881/6825kHz] Fair and noisy//Strong		PLdn	SAT

M89 O

JPL has written an excellent in-depth report on this station entitled 'M89 or the Communication Network of the Second Artillery Corps / Force' which can be found on page 67 of the ENIGMA 2000 Newsletter 73 (Nov 2012) or now downloadable from the 'Articles' section of the ENIGMA 2000 website.

Operator Chat from M89 GT = Global Tuners (Online remotely controlled receivers)

3169	2240 - 2251z	12 Dec	(In tfc) (Remote Tuner Siberia)	JPL	WED
	(2240z)		(In tfc) PT 09W R R 45W R CK *QSL 06.9* K (2241z) R R 7G *. 97 CK 91 42 1.130640 RMKS 8012 TO 8212 K* (2242z) R 4N3. 7NNN EEEE BT 4.3D 7NNN 35UT .D5T 7UAU 3DT5 6N6A 6... (Cont'd) AR (2246z) R R BT 11W D4A4 D.A4 K R 11W ... D4A4 K R 74W ADN3 ADN3 K (2247z) 9 EEE M.W TO 8W BT BT .... T665 K R R		
	(2249z)		(Appears to have switched to voice – 2249z)		
3282	2135 - 2144z	17 Dec	(In chat) (Remote Tuner Siberia)	JPL	MON
	(2135z)		(In chat) R ASNW BT .. R K (2136z) R .. 0S EEE 0 EEE .2W TO 0. K ...5 5U4D DDA4 A3NT 6N6A (2137z)		
	(2140z)		R BT 74DT D665 4555 U4.D DA4A 3NT5 N6A5 3N... (Cont'd) K (2139z) .5W BT DA4A DA4A .. R (2140z)(Silent)		
3289	2254 - 2305z	12 Dec	(In chat) (Remote Tuner Siberia)	JPL	WED
	(2254z)		(In chat) *HDJ.* K DE DE *R9NF* K QSA 2 K SK SK *ZS.W* K DE R... K R QSA 2 QSA ? K QSA 2 K SK SK (2255z) (Silent) VV VV VV VV VV (2300z) DE *TS1P* CL K VVV D *TSJP* CL K *SZSU * DE DE *SUX.* K R QSA 2 QSA ? K OM. . SK SK *ZSUW* CL K DE DE DE *A.6K* K R QSA 2 QSA ? K R QSA 2 K SK SK GB		
	(2305z)		CB (2302z)(Silent) (All stations on this freq – hand sent – poor CW) (Lost remote tuner @ 2305z)		
3599	1612 - 1617z	10 Dec	(In chat) (Remote Tuner Siberia)	JPL	MON
	(1612z)		(In tfc) NR 80/. 12128.2.100000 RMKS 8292 TO 8236 8231 K (1612z) R 13W D6T4 K (1613z) HW K.A. (1615z) QSY VAM		
	(1616z)		HR T AW QSY AW EEEE 3. K *KRDO DE VI..* (Unsure to these call signs) .. K QRM D544 M 22W (Lost remote tuner - 1616z)		

3679 2049 - 2054z 13 Dec (In tfc) (Remote Tuner Siberia) JPL THU

(2049z) (In tfc) AAT3 D7A6 4.TT TD53 3DDN (Cont'd) AR (2050z) 49W BT 47T. K (2051z) 75W .... KEEE OK (2051z)
(2051z) (Voice station causing interference- Silent)

3704 1111 - 1118z 13 Dec (In tfc) (Remote Tuner Siberia) JPL THU

(1111z) (In tfc) 34AD NT37 U465 T... (Cont'd – hand sent) AR (1114z) (Silent)

3738 1126 - 1134z 13 Dec (In tfc) (Remote Tuner Siberia) JPL THU

(1126z) (In tfc) 3D6A ..4N 5T 6D.. 5.N. (Cont'd) AR (1129z) AR RPT .W BT 5NN. K 4W HT4N .4N (1130z)
79W BT 3T7D 3T7D 92W BT WNII BTNSA RPT K ER. RN. S 82.1 TO 8. K 4M.W K3AS. SA (1132z)
(1133z) 49W BT 7D3A 7D3A R R (Switched to voice – 1133z)

3755 1208 - 1215z 12 Dec (In tfc) (Remote Tuner Siberia) JPL WED

(1208z) (In tfc) (Very weak) A7NT AR K (1210z) BT 3AT. AR K (1211z) BT 4A37 4A3J AR K ... AR K BT .AT4 .. T4 AR K
(2214z) BT 7NNT .NDT AR K (1212z) BT GA K (1213z) R ... (1214z) (Fading badly)

3774 2147 - 2151z 17 Dec (In chat) (Remote Tuner Siberia) JPL MON

(2147z) (In chat) R K 3UKF DE 4W3W K (2148z) R K ..YN DE 4W3W K R K 9TAV DE 4W3W K R K ..DA DE 4W3W K (2150z) (Silent)

3812 1837 - 1850z 11 Dec (In chat) (Remote Tuner Siberia) JPL TUE

(1832z) (In chat – Hand sent) QSL A QSL Y K 24 O K OK GA GA//B (Both stations on this frequency)
HR ..*NR O28/E/CK 2OO GLS4..NATE1212 T.OIKH 1RMKS 4578 TO 4223 W* OK OK D. GA//B JK OK BT BT N5DA N.5 A67N .. (Cont'd)
R K (1846z) 19.U (Silent) JK OK *QSL 250* HR W K *NR 113* R K OJ HR OK *NR QS. 521* K OK OK TKS WK GB GB//B
(1832z) ..GB GB SK SK SK //B (1849z) (Silent)

3830 2244 - 2251z 05 Dec (In tfc) (Remote Tuner Siberia) JPL WED

(2244z) 77N6 A.TN 7D. 53A3 666. (Cont'd) AR HW WRK 4 DE DO.6 K (2249z) R 6. TU .. DE U7D EEE R 6.W BT UD6D UD6D AR (2249z)
(2251z) RPT K R . AS AFM N. T3TU T3TU AR (Lost remote tuner @ 2251z)

3850 0016 - 0020z 12 Dec (In tfc) (Remote Tuner Finland) JPL WED

(0016z) D64D 3A3N 5T6D DA7D 3N.D AR QSL ? (0017z) R RPT 47W K//B (Both stations on same freq) R RPT 47W 5ADT 5ADT K
(0019z) R QSL 8 EEEE R *QSL 1815* HR WK NR .5 K (0018z)//B WK NR 28 K R .NIL SK//B R NIL SK (0019z – Silent)

3854 1138 - 1140z 13 Dec (In tfc) (Remote Tuner Siberia) JPL THU

(1138z) (In tfc) NDU3 7.A6 .7N7 TTAU (Cont'd) (Lost remote tuner @1140z)

3865 1031 - 1036z 13 Dec (In tfc)) (Remote Tuner Siberia) JPL THU

(1031z) (In tfc) 7656 N6UN U73A .5N5 37NU (Cont'd) AS (1032z) (Silent) (Lost remote tuner @ 1036z)

3874 1615 - 1622z 08 Dec (In chat) (Remote Tuner Siberia) JPL SAT

(1615z) (In chat) VV 3RF. DE X7AT K VV *3RFM DE X7AT K* (1615z) VV 3RF K (1618z) R (Silent – 1618z)
(Lost Remote Tuner @ 1622z)

4175 1205 - 1215z 08 Dec (In chat) (Remote Tuner Siberia) JPL SAT

(1205z) (In chat) .... DE JCOS QSA ? K *FM7O DE JCOS* ...? K (Silent - 1205z)

4244 1114 - 1125z 08 Dec (In chat) (Remote Tuner Siberia) JPL SAT

(1142z) (In chat) R K *HOSM DE D8IZ* K..... R K *M.NT DE D8IZ* K (1116z - Silent)

4519 0046 - 0052z 12 Dec (In chat) (Remote Tuner Siberia) JPL WED

(0046z) (In chat) MSG 7G K AS AS//B (Both stations on same freq) GA GA //B *NR 27 CK 89 CLS 82 .212 O84. K* GA GA//B
BT BT AXUEEEE A375 U7NT 735. 5T54 557U 6U4T .6N.. (Cont'd – hand sent – very slow – 0049Z) K (0057z) RPT 9.W K//B
7. G K (0059z) .. NR 95 CK BT *NR 26 CK 95 CLS 34 1212 .900* K (0100z) R R NR NR //B NR NR //B AS AS
(0103z) MSTDU ..5 N5K. 5AUN T5DT AUA3 T4N6 (Cont'd – hand sent – very slow – 0103z) (Lost remote tuner at 0105z)

4590 1130 - 1148z 06 Nov (In chat) (// 7607 sending R/S) (GT Hong Kong) JPL TUE

(1130z) (In chat – Hand sent – Horrible CW)
R R 38 K K R R 2 K K R NR 4. K R R 5MIEEE 5 1W K ..7 K K (Checked //7607 and WITN DE GNXG R/S Active)
R R RP RPT MS 10. EE RPT O EEE RPT 1W TO 76 K K (1134z) R R 7OSI 71W TO 76 K K 71 TO 76 K K OK (1137z) R R GA GA K K
R R 77 EEEE 77 TO 90 K K 77 TO 90 K K R R N .T 85 TO . K K (1141z) R R 87 K K
(1143z) R NR . N O KOK M QSL QSL 194 EEE QSL 19 EEE *QSL 1940* K K (1142z) RR HR NR 4.. K K NR GB (1143z) (Silent)

4590 1154 - 1319z 06 Nov (In chat) (// 7607 sending R/S) (GT Hong Kong) JPL TUE

(1154z) (In chat – Hand sent – Horrible CW)
QSY NR 01 K K (1154z) QSY R R QSA 2 K K R R K MS C BT BT 4EEEE C BT BT BT 4041 K . K K AS (1157z) HR MSG
R RR NR .R 7G *NR 3296 CK 96 44 1106 1940 RMKS BT BT* 2028 TO 3855 RM KS BT BT 20.8 TO 3992 CY..
R R R NR ..GA .. 737T T.65 2N2A .UU? 1W GA BT BT BT 737T T.65 .? UNTT N475 3N6. (Cont'd – horrible CW opr) (1201z) AR K K (1207z)
R R R R GA K K (1208z) MSG . K K (1211z) R RPT NR K K (1212z) R R R 13 GA K (1213z) QSL QSY NR 02 K K QSY NR QSY (1216z)
R R R GA R QSA 3 K K (1217z) R R MSG 2W . Q. 8W K K (1218z) R R ..1511W GA K K 91219z) R R 28 K K (1222z) NR (1223z)
.. TO 35 K K (1224z) R R M 9 K K (1225z) R R 41 TO 42 K (1226z) EEEE R R 43 K K (1227z) R R .1 GA K K 51W GA GA K (1228z)
EEE EEEEEEE EEEEE QSY NR 02 K K QYM QSY NR 2 K K (1230z) R R R R R ..GA K (1231z) . K K (1234z) R R H EEE K K (1235z)
NR R 73 K K R R 74 K K .1 K K R R R R 75 TO 80 K K (1237z) RR 75 S75 K K (1238z) NR R R O. 3 TO 84 K K (1239z)
(1242z) R R QSA..QSL *QSL 204.* K K K (1240z) NR NR HR NR 5.6 K K R R (1242Z)(Silent – WITN DE GNXG R/S still active on //7607)

(1259z) QS. MNR 32 K K (1259z) .YVG DE VEEE Y.G DE LU.I NR 3.. Z QSY .Y NR 32 K K (1300z) YVG DE LAV.. K (Horrible CW)
YVG DE L44H K K (?) QSY NR 02 K K QSY VG QSY NR 02 K K (1302z) 4W DE L4A. K K
QSY NR 02 QSY QSY NR QSY NR 02 K K (1303z) *YVG DE LVV5* K K (Control stn callsign sent differently each time!) Y.T ... DE EEE
(1307z) *YVG DE L.V5* K K (1306z) QSY NR 32 K K QSY NR 32 K K R R QSY TO QSA 3 K K (1307z) R R QSA 3 K K
R R NR HR NR H.. CK . K K NR . GB (1307z) (Silent)

4590 1155 - 1238z 10 Nov (Freq normally used by GNXG) (GT Hong Kong) JPL SAT

(1155z) (In tfc – Hand sent)
NTN3 DT.. U75A .665 ..NA U575 4U7T .. (Cont'd) AR K K (1159z) R RPT 39 W BT BT 4N4T (1200z) NR AS
U UVVV 7MG GA K K (1201z) R R U EEE AMSG GA K K R R RPT K K (1202z) R R R RPT TIME K (1202z) I R R 10. K K (1203z)
R R 11P.. K (1204z) 2.. K (1206z) .2 RMKS 211. (1606z) R R R 2 RPT 23 RPT 23 K K (1207z) R U RPT 23.. K K RPT 23 W K
R R NR 41 W GA K (1208z) R R 41 W K (1209z) R R 61W .. K (1211z) BT T 61W GA K K R R RPT 6. .. K (1213z) RPT 62W
(1218z) RPT 6... R R RPT 72 GA (1215z) R R 74 R R 81.. K R R RPT 95W K (1217z) R *QSL 2018* *HR 416* K K (1218z)(Silent)

4590 1258 - 1314z 10 Nov (Freq normally used by GNXG) (GT Hong Kong) JPL SAT

(1258z) VVV *HY4G DE L... K* (1258z) R R R QSY NR 02 K K *HY4G DE L44. K* QSY K QSY NR 02 K K (1300z)
(1302z) QSY NR 07 K K (1301z) R R QSA 2 ... NR NW *HR 416* K K R R (Silent – 1302z)(Probably QSY to another freq)

(On 6 Nov call-sign sent was ***YVG DE L44H**, *so **HY4G** and **L44H** would fit. I'm sure about HY4G and L44)

4620 2030 - 2040z 11 Dec (In chat) (Remote Tuner Siberia) JPL TUE

(2030z) (In chat) R MA2 K R *IEC IEC* AR *673.* AR K R SIC MK *NR 101 K* (2031z) R GA EE GA (2032z) R (Silent – 2032z)

5041 2255 - 2308z 10 Dec (In tfc) (Remote Tuner Siberia) JPL MON

(2255z) (In tfc) 5ATN T5.. 5..4 6N4D 3..6 A.. (Cont'd) AR (2256z) 31A6 TA45 ADT4 AR K (2257z) RPT WNR 3.WO 32. BT A.. K (2057z) R
(2058z) (Silent – 2058z)

5545 0034 - 0043z 10 Dec (In chat) (Remote Tuner Siberia) JPL MON

(0034z) 4NUA 34TU N.NA 3443 ..TT (Cont'd) 41W (0043z – Lost remote tuner)

5634 1542 - 1550z 11 Dec (In chat) (Remote Tuner Siberia) JPL TUE

(1542z) (In chat) NR NR 8170 CK .894.2. .000 RMK 239. TO .426 K K QSL QSL K *QSL 2.55* K U7G GA (1543z) NR OK 7QSL
(1545z) QSL A QST *QSL 2259* K (1544z) QSA NW .. ... NW K BOZ . K SK (1545z – Silent)

5656 1453 - 1515z 20 Nov (In tfc - 4 fig cipher) (GT Hong Kong) JPL TUE

(1453z) (In tfc – handsent)
7UA4 D5 EEEE 34U5 A3 XX 6U47AV ? VV .3D4 .. BZ EE AU34 567D T X X BT BT BT 5346 7UA. D5EWV AE R A / U5A3 BXU57V.DV
BT AX BT 5.55SHEEEEEEEEE S34NS 7UA4 D5.4 U5A3 6A. ? D4V7 EEEEE U43D 4AU. 3 D743 T4A Q TXT T B7. (1456z)
(Voice on freq in background) K V..HT3 H7.. C7.3N 453NN7U3D4 64 ? 6 AIW NS44 ..ISIII I 3456 7AU3 5444 EEEE 5I AA U345 4..
7DNT AU34. 567 DT AU34 567D T K AR AR S IIIII 05 3454 56 BT 53S46 CIUA4D43 4 / D4U AI A AU34 567DN AU53 6674 A... (1459z)
AU6 IESN U7U4 D734 NU44 T3X BAIE BBAV ... (Runs groups together with horrible CW fist!) 3N4X R BT 5N53 4T BT 5.. BD BT
(1502z) BT BT BT 434. 6N57 UA4 4D5.... (Cont'd) (1501Z) (Silent – 1505Z)

5656 1148 - 1237z 21 Nov (In chat/tfc) (Remote Tuner Hong Kong) JPL WED

(1148z) (In tfc – handsent – slow –) 7435 ND6T A5A3 74.T .6N7 ADT5 47NA ..DT 6T
5D6N 47U3 TA6U 43ND 57TA U364 5TN7 DAU3 4657 AD.T TNA4 6U7D 53T4 A765 UND3 D54. 67TA U345 DNA7 TU34
56D7 NTAU 375 DUN3 T6A4 T45U U67D NTAU 4635 D7NT 3AU7 46D5 NT45 56U7 N3.T .UND 4T35 67.5 UAN4 6.7N
..7D T... 67D. N.U3 7456 DN4T 57UA 3674 T.UN 5A36 7DUT AR K (1155z) R RR *QSL 1955 QSL 1955* K//B (Both stations on same freq)
R R 7. GA K R R NR NR 53. CK 159 93 1121 195 //B *NR 534 CK 159 93 1121 1955 K* //B N R GA K RRR GA R BT BT BT //B
7TDA 6N45 U3D4 65N7 .U36 D47 ... (Cont'd – 1157z) // B AR QSL ? K (1209z) //B NR *QSL 2008* K RRR S UG GA K NR TU GGAK
R R NR 535 CK 159 93 1121 2009 II 7 //B NR 535 CK 159 93 1121 200 //B *NR 535 CK 159 93 1121 2009* K //B K GA K R BT BT BT
7D45 .A6NT U3A4 56NU 7TD – 7TD3 546U 7DN3 TA43 5T67 UNDA (Cont'd – 1213z) //B AR // B (1224z) *R QSL 202. QSL 202.* K
R R QS. K K//B (1225z) (Silent) (Appears to have switched to voice) (1228z) R R NR BT BT A1.2DN C3D4 III BT .2.2DN CIII CI EEEE BT BT
(1237z) A1B2 DNC3 D.K *QSL 2033 QSL 2033 K* NR GA K *NR 7G NR 540 CK 151 93 1121 2034 * 7G NR 540 CK 151 93 1121 2034 K K GA K
AU34 N657 DT3N T....(Cont'd – 1235z) (Unable to monitor further – 1237z)

5656 1348 - 1410z 22 Nov (In tfc) (Remote Tuner Hong Kong) JPL THU

(1348z) (In tfc – 1348z) AU7N AT5D 36U4 D54A 6N.. (Cont'd) AR QSL ? (1353z) QSL ? QSL ? K
R *QSL 21.3 QSL 21.3* HR. GA K K//B (Both stations on this freq!) R R GA K *NR 7G NR 570 CK 159 93 .1222 154* K K //B
R R PT TIME M K NR 570 CK 159 93 1.222 EEEE K //B R R GA K GA K BT BT BT //B
7TDA 6N45 U3D4 65T7 TAU3 6D47 T5.. (Cont'd – 1355z) //B *QSL 220. QSL 2109* O0 G K QSY *USB*. (1407Z) NR OK // B
(1408z) R R (Appears to have switched to voice) (1408Z)

5656 1439 - 1445z 22 Nov (In tfc) (Remote Tuner Hong Kong) JPL THU

(1439 - 1445z) (In tfc – 1439z) D3DA T4D5 6735 635U NA6D 6TA6 5D73 UU3T (Cont'd – 1444z) (Got called away – 1445z)

8015 0907 - 1205z 16 Nov (In tfc) (GT Hong Kong) JPL FRI

(0907z) (In tfc – hand sent)
5T54 3N5T 37U4 7U34 7T5. D46D DU54 74UI ? 74U6 A67D D5DA DUNN 63D7 DU5D D4TD T7T6 TD66 3676 74UD 54U7
UAN. TA7U 6NN5 N55T 7U6D T546 73T3 3U6U 7NAD TU4U 5A6T 7TAN N5UT 4557 A37T ..5? NTUD 43N7 ..53 754D
AD.U 3AU3 3AND N4AN UAUT 6364 NAD7 ND75 AD36 5U56 5474 355A U565 DNTN DNT7 TT6U T.3N T4T6 7NDT UAN7
.34A 6AU5 DAUT 4A74 5466 4NNT 6AUA N.4DD 7T45 NA6A 3535 NA47 A.5N 67D7 3567 D3UA T5UN U3N4 3753 D64U.
553.. 74A .3UN AUTU A33T T4U4 N3ADE 4AU3 TD7N DU36 3UA5 D4A4 II (0513Z) (Switched to automated sending)
BT BT UAA4 4U4U ? 7U34 ND43 6NDU 67DA DU47 U6D4 TA74 TTT6 3635 46NT N5TA NU34 NTNA UAA5 UN4T 7T65 T4DU U75D
UD67 UAU5 DN4T N5UD U6D3 T564 U65T 7AU7 7T43 ND53 53T4 5NTN ATUA T45N T635 7..4 ..3T5 TD6N 735A DUDN
7ANT 6N5D D7D3 N3U6 6ND7 T66U T76 ? T767 D4. (0515z) K K R R AGN
4T EEEE 45W BT BT .D7 T..U T7.7 D44N NTD3 U4N. 6T5A 3.3N.. (Cont'd – hand sent now)
DTU7 NT4N U.T6 45UT 7U5D TUA3 A34T ADU4 7AUT TU3A A676 4A.D N3DN
73N7 7ANA T65T 36T6 A56D .33U .DD. UND5 445A 4UT4 4AN. R K (0518z)
R R 3W BT 7UE4 AR K BT BT 4U4A EEEE BT 4U4U AR K (0519z) 99W BT 4AN. AR K R R R R 70W BT DAUT AR K (0920z)
1W BT U56. AR K 4. W BT 43N7 AR K BT NTUD AR K BT A37T AR K 36W BT 73T3 AR K 33 W BT N55T AR K
31W EEE 31W BT TA7A EEEE BT TA7U AR K (0922z) R R HR MSG GA M EEE 7G *NR 54 CK 199 78 1116 1700* K (0923z)
R R BT BT BT N473 743A 6? 56NT UU5D 6UNT DT6A DTA. 53 (Cont'd)(Sent automated)(0924z) AR (-0932z)
R R (Hand sent now_ BT BT 5RDU AR BT BT 5DU AR BT BT 4D5A AR BT BT 565N AR BT BT T743 AR BT BT D5NT AR
BT BT D5NT AR R R (0934z) BT BT 6AT5 AR BT BT ANA3 AR BT BT DA64 AR BT BT 6TAD AR BT BT 6TAD AR BT BT T4DA AR
BT BT 5T5A AR BT BT U633 AR BT BT 56NT AR R AS (0937z) HR 7G GA (0939z) HR 7G GA R R
MSG NR 55 CK 299 56 1116 1700 BT R MSG *NR 55 CK 299 56 1116 1700 BT*
U5T3 TN36 34N4 UT4A 65.N 4NA 6UT74 76D TA7D ... (Cont'd) (0941z) AR (0953z) AGN R BT BT TTE AS AS (0953z)
U..U QSY TO NR 01 NR 01 U QSY TO NR 01 NR 01 (0954z) U QSY TO NR 01 NR 01 K U QSY TO NR 06 NR 06 U QSY TO NR 06 NR 06 K
(0955z) R R T C R R R R R BT BT TN73 AR BT BT TDTU AR BT BT 6AAN AR BT BT 5ND6 AR BT BT 4TDA AR BT BT A6N6 AR
BT BT 5NND AR BT BT U73N AR 16W BT U73N BT BT 6A6A BT BT D4T3 AR BT BT E BT BT DTU4 U445 6AD6 6A6A U73N AR
(0956z) R R BT 6..II (Appears to be a change in format – possible change of opr?) BT BT6.. III BT DTU4 II BT DTU4 III BT U445 III R R
BT BT HT4A III BT BT 5T4A 4757 ADDU 377A III BT BT U45N III BT U45N III BT BT U45N III BT N743 III BT 7.IU III
R R HR MSG GA K (1003z) R *MSG NR 56 CK 299 56 1116 1700 BT* K R R BT BT U5TIEEEEEEEE BT BT
U5T3 TN36 U4N4 UT4A 6.3N 4UNA 6U... (Cont'd – 1004z) D56D 3N54 DN76 74UU 3NN3 NT65 ? TT65 36TN T4AD 4D5N
D653 74T7 N7D7 45U6 65DN A56A 5N65 NTA3 377A 736U AUDA D35T UN3U ANTU 4736 7DU7 T54 344U 6NN ? 6NT4 .N5A 7UD5 AT37
T4.. 67D6 5DAU U7UN U5DT N37D UT4A ? UT4U 3NDT 734A T4UA UD43 6T4U ADU6 364N TDTU T? NTDU 4? 5N75 6AAN 5ND6 AT3A
U54T 67.3 UA65 TN73 AR (1017z) K K R BT BT TT64 III BT N7D3 III R BT D5AT III BT D5AT III BT AN6U III BT AN6U III
BT AN63 III BT AN63 III BT 64UA III BT T5TD III BT TUU3 III BT TUU3 III AGN AGN (1020z) R R BT 3AD7 III
R U MSG GA K (1021z) GA GA GA GA R R 130 GA K 130 M GA K (1022z) R R (1032z) *QSL 3 AR BT* *QSL 8 AR K* *QSL .833 K*
GA (1033z) GA (1033z) R R 1P (1043z) 09W 80W 50W 70W 60W 40W 20W 30W 25W 25T 28W EEEEE 25W TO 29W
R QSL 1847 W EEEEE QSL 847 K *QSL 1847* R HR MSG GA K (1047z) R R *MSG NR 57 CK .99 56 1116 1700 BT* R R BT BT BT
T55A D354 7337 6536 N5T5 47DT 456N D54A TA7D TT44 43... (Cont'd) (1049Z) AGN (1101z) R R K BT UDD7 III BT ... III BT UNT3 III
R R BT D6TU III BT D6TU III R R BT UU35 III BT BT UU35 III BT 4675 III R R HR MG GA K *MSG NR 58 CK 299 56 1116 1700
BT* R R BT BT T55A D354 7337 6536 N5T5 47DT 456N ... (Cont'd – 1105Z) UU53 AR (1117z) R R BT 5NTA III BT T65A III
BT D5N6 III BT TAU4 III BT 3NA4 III BT 5TT6 III BT BNNI III R R R R (1119z) NR BT 366N III R U GA (1120z) GA (1121z)
R R (1131 *QSL 1931 K* (1131z) R U GA C K19 CK 199 GA K CK 199 GA K (1131z) GA (1132z) QSL 1940 K (1139z) *QSL 1940* K
(1139z) R SK GB (1139z) (Silent)

8055 1128 - 1141z 22 Nov (In tfc) (Remote Tuner Australia) JPL THU

(In tfc – very weak – 1128z)
6U54 NA.N AIEU 4.. (Cont'd) AR AS (1139z) R R R R NR .4.UM. 8220 .7. K
NR .356U.. U. 6UTD UN5A TU.. 7DU.. (Cont'd – mostly U/R – 1141z)

8111 2330 - 2349z 07 Dec (In chat) (Remote Tuner Siberia) JPL FRI

(2330z) R R QSA 3 K K R R HR NR 2.. K R R .. (2331z) .Y. M.G V.Q. K *VV M.Y.KEYE. DE S4BQ* K K (2332z) *VV MEY3 DE S4BQ K K* (2333z)
VV MEY3 DE S4BQ K K (2334z) R R R R WB.J QSA . K HR NR 206 K (2335z) R R ZB *MEY3 DE S4BQ* K K (2336z)
R R *Z. M9* QSA 3 K (2337z) R R G. QT. GFQD ZS.3 K (2338z) R R *GFX.* QSA 3 K R R (2339z) QSY QSY (2339z)
QSY TO NR 03 K K (2340z) R R *GFX7* QSA 3 K (2341z) (Not 100% sure of this callsign) R R HR NR 206 K K R R QRW *ZUM9* K K
R R GB (2341z) MEY3 DE S4BQ K K (2342z) ZUM9 K K VV ZVM. (2344z) QSY NR 06 QSY NR 06 K (2344z) ZU.. .. QSY .. (2345z)
(2346z) (Signal is fading badly – Silent – 2346z)

8111 0042 - 0056z 08 Dec12 (In chat) (Remote Tuner Siberia) JPL SAT

(0042z) (In chat – very weak)
R R 05 K K (0042z) R R 70W K (0043z) R R . W K R R ..1W K K (0044z) R .. 30W K QS. 1.. (0045z) R R QSW K K (0047z) R R
R 0 R R 8. (0048z) R R .. K R R .M KS K K (0049z) RPT .. RPT HRE . RR SR NR .. GB NIL RPT .CSR K K (0050z)
(0056z) R R QSL O EEEE R R QSL .55 K (0054z) NR QSL 2.55 K K (0054z) GB (0055z - Silent) (Lost remote tuner @ 0056z)

8855 0404 - 0424z 20 Nov (In tfc - 4 fig cipher) (Remote Tuner Russia) JPL TUE

(0404z) (In tfc – Very weak)
BT BT S3A TA? .. U6T4.. (Very weak) (0409z)
BT BT BT BT BT D3A. UAUD UDTU 6T74 UT45 A7NN ... (Cont'd – 0411Z) (Silent – 0415z)
BT BT ... DTU. DT.. 5..UUUU NAN5 546D 5T.. (Cont'd – 0417z) BT BT BT BT BT BT 35TD 53T3 ... (Cont'd – 0421z)
(0424z) (Remote tuner timed out – lost access – 0424z)

8855 0438 - 0445z 20 Nov (In tfc - 4 fig cipher) (Remote Tuner Russia) JPL TUE

(0838z) (In tfc - Cont'd – Very weak)
(0838z) BT A7UM 335D 74AA ... (Silent – 0443z) BT BT BT BT .....4NU TD.. (Cont'd – 0444z) (Signal fading – bed time! – 0448z)

(*Unlike other M89 messages, this station simply sends a few BT BT BT and then goes into tfc)*

8789 0313 - 0342z 21 Nov (In chat/tfc) (Remote Tuner Hong Kong) JPL WED

(0314z) (In chat) NR 00. R R 1 (Handsent - very slow and weak CW) 77 NA 0001 CK 11 DH K5 74 574 7 *7G 0001 CK 11 74 0121 0114 NO NMKS BT BT*
NO NMKS BT BT BT BT 745D T NO MS BT BT 7457 *TO 7457* K (0317z) GA K//B
(Other station on same frequency!!!- Rare occurrence)
BT BT BT BT 36A5 A7UD AATN U57. T4 EEE 7 T43T NU7D WT4A TN56 DTN7 .543 T37D K CK (0319z) NPT PK //B NPT T5 //B
NPT 5W K//B T5W BT BT T43T C K NPT 6W K//B 6W BT BT NU7D AR K NPT . W K//B .01W37D AR K
O1W BT BT A3 ? NW BT A3GT TN K NPT CW . GT CK .. //B (VERY WEAR) NR 0 NGT CK K ..//B N TTPN C. NPT CK 0 BT BT
0.1 N . PT CK 00 K .. //B TIME BME . K//B TE.GT TW NPT ... //B NW NPT .. TIME K //B RT T DPT TIM 0114 K (0328z)
NPT DATE K //B NPT DATE K //B NPT DATE 01.1 K N QSL 12 QSL 1130 QSL 0130 K//B *QSL 1130* K //B SK K //B N
(0332z) K GB SK //B (0331z) BT BT VV *TM75* (Callsign?) K .. K K GB K //B (0332z - Silent)

8789 0716 - 0740z 23 Nov (// 10779 in R/S) (Remote Tuner Hong Kong) JPL FRI

(0716z) (In chat – hand sent – very slow CW) C K K.S N (Other station also appears to be on same freq, but extremely weak) 4 (0719z)
TSU4 WS .VV HU4. .N . CJS Z KJ5 DE HHJF (0720z) UVUZ VV ZEVV7 KJ.. VV VV VV 4.KJ.Z TJS.IO (0722z)
BT V U7KJIZ.JSSSJ VV VV 7.*ZKJS ZKJS DE HHOR K* K (0723z) (Very weak signal, so unsure of these callsigns)
Q2..//B (Other station – very weak) (0724z) T2 AR K (0724z) QSA 2T H QSA 2 K (0725z) N C (0727z) BT CXX BT 03R K (0727z)
KE BT 05 N H. CSEO 5.. 503 K (0729z) GA K//B (0731z) MSG NR .9 MSG NR 01 K K 01 . 011 5 GS 7G *NR 01 CK 199* (0732z)
R .. K (0734z) QSA 3 K //B R R BT 13345 AR K (0737z) CK .1 ..13 0 (Fading out – mostly U/R – 0739z) CK 11. 1123 .40.
(0740z) *MSG NR 013 CK 11*. ..(0740z)

8789 1316 - 1342z (In chat) (Remote Tuner Hong Kong) JPL FRI

(1316z) (In Chat) NPT NPT 1W BT BT TAA4 TUTW E? ... AR K NR R R.R R //B NR R R R R R N QSL 2020 K//B (1318z) HR NR //B
(Turns out //B is CONTROL STATION!) HR NR K //B NHRNR 20AA ? HR NR 212A K HR SNR 111 EEEE NNR R5 SF NR 21 EEEEE 201 K
HR *NR 202* K NR R R R SK SK K //B UA GB R GB .. //B NU BT HATT U ND D. 3AUT ...
*V 7K1H DE HHJ. K *//B (Unsure if correct – very weak and poor CW) (Earlier copied as *ZKJS DE HHOR*) R 2... N 24 Q23 AQ23
QSA 3 OK .. //B QSA 3 K//B 7H QSA 3 K NR . C.BT 05030 CK //B C ABT 7 K K R R 7N.G .. //B (1324z)
BD.V QT. *NR .15 CK .2.. 123 71 0* N RMKS BT BT 8458 TO 8454 AR K //B TT. AV3N TAU3 RUD. .5 (Cont'd – 1326z) //B
QSL 2.29 T NR NR BT BT ... K//B QSL 1120 K 7M.. //B *MSG NR 020 CK 11 74 .123 1145 * NW CS 8 5 RMKS BT BT
8454 TO 8458 TANK .NT //B (1330z) NU BT BT B4DT 53TN .UD GA K//B BT BT BT
(1332z) B4DT 53TN 3UA7 7NUD AU3D NV. (Cont'd – 1331z) R QSL QSL .. //B QSL 1230 K (Silent - 1332z)

10180 0636 - 0815z 03 Nov (In tfc) (Freq normally used by 3A7D) (GT Hong Kong) JPL SAT

(0636z) (In tfc) U537 A7D4 6NT3 36NT 754N UND6 D443 5DUD 5A7D 6N56 TU4T T763 AR AR K (0637z) R BT 574U AR K BT ... AR (Data burst)
BT D635 AR BT AA54 BT ADUN AR R BT N5NT BT A7DN AR BT 7NA5 AR BT UN7U AR R UMSG GA K (0639z)
GA K (0640z) 3 PK (0652z) E4WK R 97W K R QSL 1 EEEE *QSL 1453* K (0653z) HR MSG GA K R
MSG NR 27 CK 199 95 1103 1400 BT R T336 TNN7 344A UTT4 65NU 4UNA 6U67 473D TA7D TTA5D
AU567D.....(Running groups together now) (Signal starting to fade – 0700z) K (0702z) R
BT BT T4ND AR BT BT 5DU6 AR BT BT TUT5 AR BT BT N5D3 AR BT BT DTAU AR BT BT 7D3U AR BT BT A3UD AR
BT BT A3UD AR BT BT 5665 AR BT BT 5665 AR BT BT N764 AR BT BT UU3D AR BT BT 435D AR BT BT D3NA AR
BT BT T56A AR BT BT T56A D3NA 73AT 653T N5N7 477N 457A D5U5 AR (0706z) BT BT D3NA AR R BT BT 64DU AR R
K K H BT BT BT 7AUT AR BT BT 3FM TE BT BT BT 3AU5 AR (0709z) DAUT AR R HR MSG GA (0710Z)
R E *MSG NR 28 CK 299 51 1103 1400 BT* D R BT BT 7TNA A46N 3D54 UA6D D7N5 34NA7 6TT3 547A ... (Cont'd – very fast – 30 WPM)
AR (-0721z) BT BT BT BT.. AR BT BT 3U5U AR BT BT 3U5U AR BT BT TN36 AR BT BT 4T5N N74A 634A
BT BT 4T5N N74A 634N 3D53 AR (Slowed down to normal speed – 20 WPM) BT BT UTD4 AR BT BT NAD3 AR BT BT 5AN4 AR
BT BT TN46 AR R K K ITNI AR BT BT 7DN7 AR BT BT DN4D AR BT BT 75D7 AR BT BT 5T64 AR BT BT 36UA AR R
K K .N BT CQD AR K K BT BT 5.E BT BT 54NA AR (0726z) BT BT UDDA AR BT NADT AR BT BT A443 AR BT BT 6T3D AR
BT BT BT 3ADD AR BT BT U5A5 756D 65UT 653U 6ANT UDDA 54NA 67U3 46UA 3ADD AR (0728z) K R UMSG GA (0729z)
R GA (0730z) R (Attempted to find other frequency, but no luck) R (0747z) 94 4T4 4T4 BT 4P 94 W E 5 96 EEE R INM (0749z)
1 P 74 P E 74 III R 2P 90W R 60W R 70W R 65WHR 65W R SK INM R INM R INM R INM R QSL *QSL 1552* (0753z)
HR MSG K R E *MSG NR 29 CK 299 51 1103 1400 BT* R BT BT BT
A74 A6A7 TDD4 U6DU 64A6 3UNA A46D 36NT TAD....(Cont'd – 30 WPM) (0754z) AR (0804z) R BT BT AAN6 AR BT BT 7U3U AR
BT BT BT 3N7A BT BT BT A34A AR BT BT 6... AR BT BT TN5U AR BT BT 4AN5 AR BT BT UA55 AR BT BT 3UUT BT BT NT5D AR
BT BT 3767 AR BT BT 3D56 AR BT BT 3D56 AR R BT BT BT DTD3 AR BT BT DTD3 AR BT (Slowed speed to 20 WPM)
K K BT BT 4756 AR BT BT A7NE BT BT BT 7T.. AR R K K BT BT 7T.7 AR BT BT 3D3U AR BT BT D4U5 AR D4U5 AR BT BT D4U5
(0812z) AR R K K. AR (0811z) K CEA AR K K K BT BT BT U54T AR BT BT D63N D4U6 A64A AUA4 DTN4 AR R R HR MSG GA (0812z)
(0718z) *MSG NR 30 CK 299 51 1103 1400 BT * R BT BT BT T55A T34 7337 6536 N5T5 4... (Cont'd – 30 WPM) (Time to go back to bed! – 0817z)

November 2012 (New pairings marked in **bold** type) GT = Global Tuners (Online remotely controlled receivers)

3297// NRH

2018 - 2019z	01 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
1610 - 1611z	03 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
1746 - 1747z	03 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
2007 - 2008z	03 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
2107 - 2108z	03 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
2206 - 2207z	03 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
1218 - 1219z	04 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
1416 - 1417z	04 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
1945 - 1946z	04 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
1318 - 1319z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
1430 - 1431z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
1742 - 1743z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
1751 - 1755z	05 Nov	(In tfc) V GKVZ (x3) DE Q7NW (x2)(Cont'd) (GT Hong Kong)	JPL	MON
	(1750z)	(In tfc) 103/0791... (Very poor signal) COMM K ..D BT 82162/7.03/0300/1.37/3901 AR AN AR (Return to R/S 1751z)		
1927 - 1928z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
2127 - 2128z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
1903 - 1904z	06 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
2229 - 2230z	08 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
1340 - 1341z	09 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
2057 - 2058z	09 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
1529 - 1530z	11 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
2154 - 2155z	11 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
2135 - 2135z	12 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
1059 - 1100z	14 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
1609 - 1610z	14 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
1807 - 1808z	14 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
1955 - 1956z	14 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
2208 - 2209z	14 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
1134 - 1135z	15 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
1933 - 1934z	18 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
1515 - 1516z	19 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon)(GT Hong Kong)	JPL	MON
1851 - 1853z	19 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon)(GT Hong Kong)	JPL	MON
2139 - 2140z	19 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon)(GT Hong Kong)	JPL	MON
1145 - 1146z	21 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
2040 - 2041z	21 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
1343 - 1344z	22 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
1531 - 1532z	22 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU

	1409 - 1410z	23 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1717 - 1718z	23 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1933 - 1934z	23 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	2226 - 2227z	23 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1813 - 1814z	25 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	SUN
	2216 - 2217z	25 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	SUN
	1340 - 1341z	26 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	2025 - 2026z	26 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	1511 - 1512z	27 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	2010 - 2011z	27 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	1907 - 1908z	29 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	2126 - 2127z	29 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
3642//7602	2038 - 2039z	26 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	MON
3797//4512					
(4512 only)	1331 - 1332z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	1614 - 1615z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	2025 - 2026z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	2025 - 2026z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	1601 - 1602z	02 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1833 - 1834z	02 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1610 - 1616z	03 Nov	(In tfc - 4 fig cut tfc until 1612z) AR V H2FL (x3) DE DRV8 (x2) (Cont'd)	JPL	SAT
	1747 - 1749z	03 Nov	(In tfc - 4 fig cut tfc until 1748z) AR V H2FL (x3) DE DRV8 (x2) (Cont'd)	JPL	SAT
	1925 - 1927z	03 Nov	(In tfc - 4 fig cut tfc until 1926z) AR V H2FL (x3) DE DRV8 (x2) (Cont'd)	JPL	SAT
	2003 - 2006z	03 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2104 - 2105z	03 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2140 - 2150z	03 Nov	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (GT Hong Kong)	JPL	SAT
		(2140z)	(In tfc) /0393/11/04/0610/312/...6/18 AR UGT COMM BT 906/0.78/0393/11/04/0610/312/A/36/18 AR		
		(2142z)	(Return to R/S) (Sent long zeros)		
	1226 - 1227z	04 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1418 - 1419z	04 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1947 - 1948z	04 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1011 - 1012z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4512 only)	1256 - 1257z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1432 - 1433z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1744 - 1745z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1931 - 1932z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2125 - 2126z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1153 - 1154z	06 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1329 - 1330z	06 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1907 - 1908z	07 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	1342 - 1343z	09 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(3797 only)	2058 - 2104z	09 Nov	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (GT Hong Kong)	JPL	FRI
		(2058z)	(In tfc) ANDD NUU5 A7NT 5A4A 5TAA UN4U 7T3A ..AA 5N6U DAA7 5TD4 5UUA 6746 DN46 ND5U 65A4 .U73 6TTA N4T7 TN43 T475 4NTN 4A4T TU6N 363A DT7T 5UUD 675U A.TD 4N6N .... (Cont'd – fading badly)		
		(2102z)	AR (2102z – Return to R/S)		
	1243 - 1244z	10 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1117 - 1118z	11 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1531 - 1532z	11 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2156 - 2157z	11 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1331 - 1332z	12 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4512 only)	2136 - 2137z	12 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1057 - 1058z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	1611 - 1612z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(3797 only)	1809 - 1810z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	1957 - 1958z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	2135 - 2136z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	2206 - 2207z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1132 - 1133z	15 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	1213 - 1214z	16 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	2158 - 2159z	16 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1331 - 1332z	18 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1935 - 1936z	18 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1517 - 1518z	19 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2141 - 2142z	19 Nov	V H2FL (x3) DE DRV8 (x2)(Cont'd) (GT Hong Kong)	JPL	MON
(3797 only)	1217 - 1218z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Australia)	JPL	TUE
	2042 - 2043z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
(4512 only)	1005 - 1006z	22 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1345 - 1346z	22 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1533 - 1534z	22 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1411 - 1412z	23 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1457 - 1458z	23 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1719 - 1720z	23 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1935 - 1936z	23 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	2228 - 2229z	23 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Tuner Kong)	JPL	FRI
	1815 - 1816z	25 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Tuner Kong)	JPL	SUN
	2216 - 2219z	25 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Tuner Kong)	JPL	SUN
	1342 - 1343z	26 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON

	2027 - 2028z	26 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	2110 - 2111z	26 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	MON
	1512 - 1518z	27 Nov	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
			(In tfc – very weak - 1512z) 6D.. 33.3 .455 6U7T NA7U NT74 7..6 35.T ..5. NN4. (Cont'd) AR (1516z) (Return to R/S)		
(4512 only)	2012 - 2013z	27 Nov	V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(4512 only)	1136 - 1144z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1902 - 1903z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	2127 - 2128z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
4225//5500	1326 - 1327z	01 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1610 - 1611z	01 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2012 - 2013z	01 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2316 - 2317z	01 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1212 - 1213z	02 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1555 - 1556z	02 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1005 - 1006z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1250 - 1251z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1426 - 1427z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4225 only)	1738 - 1739z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4225 only)	1925 - 1926z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2326 - 2327z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1126 - 1127z	06 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1326 - 1327z	06 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1841 - 1842z	07 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1332 - 1333z	09 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5500 only)	1112 - 1113z	11 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1525 - 1526z	11 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1325 - 1326z	12 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1058 - 1059z	14 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1603 - 1604z	14 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1803 - 1804z	14Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1128 - 1129z	15 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5500 only)	1733 - 1734z	15 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote receiver Sweden)	JPL	THU
	1918 - 1929z	18 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1511 - 1512z	19 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1847 - 1848z	19 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1226 - 1227z	20 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Australia)	JPL	TUE
	1443 - 1444z	20 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	0310 - 0311z	21 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
	2328 - 2329z	21 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
	1349 - 1350z	23 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1456 - 1457z	23 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1715 - 1716z	23 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
(5500 only)	1809 - 1810z	25 Nov	(In tfc) V 7NPE (x3) DE QV5B (x2)(Cont'd) (Remote Tuner Hong Kong) (In tfc – 1809z) .. 024/Z61/5475 AR (Return to R/S – 1810z)	JPL	SUN
	1336 - 1337z	26 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(4225 only)	2017 - 2018z	26 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(5500 only)	1501 - 1502z	27 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
4474//NRH	1715 - 1716z	15 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Receiver Sweden)	JPL	THU
	2121 - 2122z	15 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Receiver Sweden)	JPL	THU
	1718 - 1719z	16 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
	1909 - 1910z	16 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
	1858 - 1859z	18 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	SUN
	2151 - 2152z	19 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1536 - 1537z	20 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
	2048 - 2049z	21 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
	2312 - 2313z	21 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
	1940 - 1941z	23 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
	2258 - 2259z	25 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	SUN
	2042 - 2043z	26 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	MON
4474//5230	1931 - 1932z	07 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (GT Russia)	JPL	WED
	0107 - 0108z	14 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Receiver Russia)	JPL	WED
	1758 - 1759z	14 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Receiver Russia)	JPL	WED
	1912 - 1913z	29 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	THU
4590//7607					
(7607 only)	1328 - 1329z	01 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1612 - 1613z	01 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	2014 - 2015z	01 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	2318 - 2319z	01 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1214 - 1215z	02 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4590 only)	1557 - 1558z	02 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4590 only)	1826 - 1827z	02 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1216 - 1217z	04 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1414 - 1415z	04 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1943 - 1944z	04 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4590 only)	1252 - 1253z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4590 only)	1428 - 1429z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4590 only)	1740 - 1741z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1929 - 1930z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON

(7607 only)	2129 - 2130z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2328 - 2329z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1134 - 1135z	06 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (//4590 in chat) (GT Hong Kong)	JPL	TUE
(4590 only)	1843 - 1902z	07 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4590 only)	2218 - 2219z	08 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1338 - 1339z	09 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	2055 - 2056z	09 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1226 - 1227z	10 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1110 - 1111z	11 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1527 - 1528z	11 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4590 only)	2152 - 2153z	11Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1327 - 1328z	12 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	2130 - 2131z	12 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4590 only)	1048 - 1049z	14 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1605 - 1606z	14 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1805 - 1806z	14 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1126 - 1127z	15 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GTs Hong Kong)	JPL	THU
(7607 only)	1200 - 1218z	15 Nov	7607 CW M89 (In tfc) V WITN (x3) DE GNXG (x2)(Cont'd)	JPL	THU
		(1200z)	HR SVC 89.. 2045/ AGN 764A4/1389/1219 AR QSL ? HR WK. NMR .5 (Return to R/S 1201z)		
(7607 only)	2155 - 2156z	16 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1319 - 1320z	18 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4590 only)	1931 - 1932z	18 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1513 - 1514z	19 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1849 - 1850z	19 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1213 - 1214z	20 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Australia)	JPL	TUE
(7607 only)	1446 - 1447z	20 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1143 - 1144z	21 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
	1341 - 1342z	22 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1529 - 1530z	22 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(7607 only)	1347 - 1348z	23 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
(7607 only)	1454 - 1455z	23 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
(7607 only)	1716 - 1717z	23 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
(7607 only)	1931 - 1932z	23 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1811 - 1812z	25 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	SUN
(4590 only)	2214 - 2215z	25 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	SUN
(4590 only)	1338 - 1339z	26 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(4590 only)	2018 - 2019z	26 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(7607 only)	1509 - 1510z	27 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(7607 only)	2008 - 2009z	27 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	1131 - 1132z	29 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1859 - 1900z	29 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(4590 only)	2124 - 2125z	29 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
<u>4860// 6840</u>	1320 - 1325z	01 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1620 - 1625z	01 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	2019 - 2024z	01 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	2320 - 2325z	01 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1220 - 1225z	02 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1620 - 1625z	02 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1820 - 1825z	02 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1919 - 1924z	03 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2019 - 2024z	03 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2120 - 2125z	03 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1220 - 1225z	04 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1420 - 1425z	04 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1320 - 1325z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1420 - 1425z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1919 - 1924z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
(6840 only)	2119 - 2124z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	2320 - 2325z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1120 - 1125z	06 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1320 - 1325z	06 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1920 - 1925z	07 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1320 - 1325z	12 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1620 - 1625z	14 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1820 - 1825z	14 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1119 - 1124z	15 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1220 - 1225z	15 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
(6840 only)	1720 - 1725z	15 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Receiver Sweden)	JPL	THU
	1220 - 1225z	16 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1320 - 1325z	18 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1520 - 1525z	19 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1919 - 1924z	19 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
(6840 only)	1120 - 1125z	20 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Russia)	JPL	TUE
(6840 only)	1220 - 1225z	20 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Australia)	JPL	TUE
	1520 - 1525z	20 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2320 - 1125z	21 Nov	VVV (x3) **GT2M DE NNMZ** (x2) QSA ? K (R5) (Remote Tuner H Kong)	JPL	WED
		Note: Sounded like transmission was being hand sent - appears to be having equipment problem.			
	1520 - 1525z	23 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1720 - 1725z	23 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1820 - 1825z	25 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1419 - 1424z	26 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	MON

	2019 - 2024z	26 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	MON
	1519 - 1524z	27 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	TUE
(6840 only)	2019 - 2024z	27 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	TUE
	1120 - 1125z	29 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	THU
5230//3642					
(5230 only)	2016 - 2017z	01 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5230 only)	1933 - 1934z	05 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1905 - 1906z	06 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1929 - 1929z	06 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Russia)	JPL	WED
(5230 only)	2132 - 2133z	12 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	0117 - 0118z	14 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Receiver Russia)	JPL	WED
	1719 - 1720z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Receiver Sweden)	JPL	THU
	2124 - 2125z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Receiver Sweden)	JPL	THU
(5230 only)	1721 - 1722z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Sweden)	JPL	FRI
(5230 only)	1907 - 1908z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Sweden)	JPL	FRI
(5230 only)	1326 - 1327z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1854 - 1855z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	SUN
(5230 only)	1937 - 1938z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2148 - 2149z	19 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
(3642 only)	1540 - 1541z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
	2046 - 2047z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
	2314 - 2315z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
(5230 only)	1401 - 1402z	23 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
(5230 only)	1433 - 1434z	23 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
(5230 only)	1718 - 1719z	23 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	1942 - 1943z	23 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
(5230 only)	2301 - 2302z	23 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Sweden)	JPL	SUN
(3642 only)	1916 - 1917z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	THU
5230//7602	1607 - 1608z	14 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
5278// NRH	0918 - 0919z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1007 - 1008z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1258 - 1318z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2320 - 2321z	05 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1151 - 1152z	06 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1055 - 1056z	14 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0901 - 0902z	16 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1147 - 1148z	20 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Australia)	JPL	TUE
	2332 - 2333z	21 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
	0957 - 0958z	22 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	2349 - 2350z	22 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	2352 - 2353z	28 Nov	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
5654//NRH	1735 - 1744z	15 Nov	(In 4 fig cut cipher - lost remote rx at 1744z) (Remote Receiver Sweden)	JPL	THU
5801//10180					
(10180 only)	1216 - 1217z	02 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	0414 - 0415z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Russia)	JPL	SUN
	1213 - 1214z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10180 only)	0911 - 0913z	05 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10180 only)	1009 - 1010z	05 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10180 only)	1149 - 1150z	06 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10180 only)	1114 - 1115z	11 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10180 only)	1051 - 1052z	14 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10180 only)	1130 - 1131z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(10180 only)	1205 - 1209z	16 Nov	(In tfc - UGT COMM msg - mostly U/R) (GT Hong Kong)	JPL	FRI
(10180 only)	0356 - 0356z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
(10180 only)	1137 - 1138z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
(5801 0nly)	1350 - 1401z	23 Nov	(In chat) (Remote Tuner Hong Kong)	JPL	FRI
		(1350z)	(Call sign sent many times, but extremely hard to figure out)		
			... DE AAL5 AS (1352z) (Hand sent – poor CW) (Unsure of call sign) *SISS S DE* (1356z) (Unsure of callsign)		
		(1357z)	DE MSG 2 .. VA (Silent - 1357z)		
6773//8040	0916 - 0917z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(8040 only)	2347 - 2348z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(8040 only)	0118 - 0019z	08 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(8040 only)	0903 - 0904z	16 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(8040 only)	1147 - 1148z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Kong)	JPL	WED
(8040 only)	2334 - 2335z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Kong)	JPL	WED
	2351 - 2352z	22 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Kong)	JPL	THU
(6773 only)	0742 - 0743z	23 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Hong Kong)	JPL	FRI
(8040 only)	2354 - 2355z	28 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
(8040 only)	0015 - 0025z	29 Nov	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	THU
		(0015z)	906../0393/.1/.9/0945/32./A/13/18 AR UGT COMM BT 906/0693/03../11/29/0945/322../12/...		
		(0018z)	/0945/302/1/.02/18. AR (Return to R/S 0018z)		
6840//10640	0920 - 0925z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1020 - 1025z	05 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	0120 - 0125z	08 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	0320 - 0325z	09 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI

	0419 - 0424z	11 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1119 - 1124z	11 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1519 - 1524z	11 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	0120 - 0125z	14 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	0219 - 0224z	28 Nov	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	WED
7582//8110	0632 - 0633z	03 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7582 only)	0344 - 0345z	04 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0914 - 0915z	05 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7582 only)	0113 - 0114z	08 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	0307 - 0308z	09 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7582 only)	0343 - 0419z	11 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0041 - 0042z	12 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0853 - 0857z	16 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	0242 - 0248z	22 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	0954 - 0955z	22 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1339 - 1340z	22 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	1527 - 1528z	22 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	2343 - 2344z	22 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
			Note: Did not change to night freqs (4225/5500)		
	0710 - 0714z	23 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	0337 - 0338z	26 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	0225 - 0226z	28 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
(7582 only)	0027 - 0028z	29 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
8789//10779	0634 - 0635z	03 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 only)	0346 - 0347z	04 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1002 - 1003z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2349 - 2350z	05 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	0115 - 0116z	08 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	0043 - 0044z	14 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0859 - 0900z	16 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10779 only)	1137 - 1138z	20 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Australia)	JPL	TUE
(10779 only)	0050 - 0051z	21 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Sweden)	JPL	WED
(10779 only)	0313 - 0314z	21 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
(8789 only)	2330 - 2331z	21 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
(8789 only)	0249 - 0250z	22 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	0059 - 1000z	22 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(10779 only)	2344 - 2348z	22 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
			(In R/S – 2344z) HR SVC GA NR .9 0745 RMKS 1384. 2799/2794 BT COMM/0830/LZ446A. 84/2799 AR QSL ? HR WK NR 14 (Return to R/S - 2345z)		
	0715 - 0716z	23 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (//8789 in chat) (Remote Tuner HK)	JPL	FRI
	0340 - 0341z	26 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(8789 only)	0227 - 0228z	28 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
	2351 - 2352z	28 Nov	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED

December 2012 (New freqs marked in **bold** type)

3292//NRH	1417 - 1430z	04 Dec 12	(In tfc) (Remote Tuner Siberia)	JPL	TUE
		(1417z)	NUA4 TD56 U75D UTNT 44N5... (Cont'd) AR (1422z) (Hard to copy as remote tuner is clipping the signal) V JHNF K K R RPT K (1422z) S RPT .. R .S.2 K K UV6.A D K K .WRP.. K (1424z) VV A EEE VV UR. K K		
		(1426z)	DDK M K HHB KK (1425z) (Voice came up on freq – perhaps SSB KK – Silent 1426z)		
	1437 - 1439z	04 Dec	(In tfc) (Remote Tuner Siberia)	JPL	TUE
		(1417z)	MSG NR ... CK 5000 BT ... 5000 ORA 1304.. OO BT UT4D 6.3D 65AD 75N. (Cont'd - Lost remote tuner @ 1439z)		
3297// NRH	1117 - 1118z	03 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon) (Remote Tuner Hong Kong)	JPL	MON
	1512 - 1513z	03 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon) (Remote Tuner Hong Kong)	JPL	MON
	1807 - 1808z	03 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon) (Remote Tuner Siberia)	JPL	MON
	2117 - 2118z	03 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Mon) (Remote Tuner Siberia)	JPL	MON
	1341 - 1342z	04 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	1416 - 1417z	04 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	2133 - 2134z	05 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	1747 - 1748z	06 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2102 - 2103z	06 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	1607 - 1608z	07 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	1834 - 1835z	07 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	1611 - 1612z	08 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1905 - 1906z	08 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1803 - 1804z	09 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	2133 - 2134z	09 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	1555 - 1556z	10 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	1857 - 1858z	10 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	1908 - 1909z	10 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	1407 - 1408z	11 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	1522 - 1523z	11 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	2238 - 2239z	11 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	1205 - 1206z	12 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	1714 - 1715z	12 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED

	2253 - 2254z	12 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	1533 - 1534z	13 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	2058 - 2059z	13 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2337 - 2338z	13 Dec	V ZKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	1332 - 1333z	16 Dec	V ZKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	2214 - 2215z	16 Dec	V ZKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	1556 - 1557z	17 Dec	V ZKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	2134 - 2135z	17 Dec	V ZKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
		Note: The first letter in the R/S Call up has been changed from G to Z. Equipment problem?			
	1356 - 1357z	18 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (UGT COMM msg sent 1358z)	JPL	TUE
			Note: R/S now back to GKVZ		
		(1358z)	VV ... (1358z) (Very strong signal - hand sent - audio is clipping on remote tuner making copy very difficult) C.63RAKS Z23.TO8618 UGT T.O .SS H BT BT 61 TK.1/Z61 GC/.306 237 NR .? 23 Q EEE BT BT		
		(1400z)	7A85. 4 Z61 8/U.23.K 73..1/.63./3W ST0 KEEE 37 NR/Z230 AR (Return to R/S – 1400z)		
	1656 - 1657z	18 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	2018 - 2019z	21 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	1415 - 1416z	22 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1935 - 1936z	22 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1753 - 1754z	23 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
3642//5230					
(3642 only)	1635 - 1636z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	1656 - 1657z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	MON
	2341 - 2342z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1505 - 1506z	04 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	TUE
	2135 - 2136z	05 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	2137 - 2137z	05 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
	2257 - 2258z	05 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
	1749 - 1750z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
(3642 only)	1801 - 1802z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
	2210 - 2211z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
	2309 - 2310z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	0059 - 0100z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	SAT
	1748 - 1749z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	SUN
	2138 - 2139z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	SUN
	0030 - 0031z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(3642 only)	1559 - 1600z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	2109 - 2110z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1251 - 1252z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	2102 - 2103z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1604 - 1605z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	2244 - 2245z	18 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
	1950 - 1951z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
	1559 - 1600z	22 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1933 - 1934z	22 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	0129 - 0131z	23 Dec	(In tfc) V DKG6 (x3) DE 3A7D (x2)(Cont'd) (Remote Tuner Sweden)	JPL	SUN
		(0129z)	100../206/2257 AR QSL ? HR .. NR 17 K (Return to R/S - -0130z)		
3642//7602	1555 - 1556z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1909 - 1910z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1527 - 1528z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	1827 - 1828z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	2233 - 2234z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	0039 - 0040z	12 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	1703 - 1704z	12 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	2228 - 2229z	12 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	WED
(7602 only)	1613 - 1614z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2032 - 2033z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	THU
(3642 only)	2334 - 2335z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(7602 only)	1940z	14 Dec	V DKG6 DKG6 DKG6 de 3A7D 3A7D	FN	FRI
(7602 only)	1512z	20 Dec	V DKG6 DKG6 DKG6 de 3A7D 3A7D	FN	THU
(3642 only)	1322 - 1323z	23 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	1759 - 1800z	23 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
3724//4590		Note: New frequency for this station			
(3724 only)	1600 - 1601z	07 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
(3724 only)	1759 - 1800z	07 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
(3724 only)	1832 - 1833z	07 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
(3724 only)	1805 - 1806z	09 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(3724 only)	1550 - 1551z	10 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(3724 only)	1905 - 1906z	10 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(3724 only)	1525 - 1526z	11 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(3724 only)	1830 - 1831z	11 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(3724 only)	1107 - 1108z	12 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
(3724 only)	1706 - 1707z	12 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	2044 - 2045z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(3724 only)	1317 - 1318z	23 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(3724 only)	1756 - 1757z	23 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN

3724//7607	2013 - 2014z	21 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
3797//4512					
(4512 only)	1125 - 1126z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	1514 - 1515z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(also 3776)*	1801 - 1803z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia) *	JPL	MON
(also 3776)*	2114 - 2115z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia) *	JPL	MON
			**Note: DRV8 is also on 3776 - Harmonic?*		
	0958 - 0959z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	1343 - 1344z	04 Dec	V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	1414 - 1415z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(also 3776)*	2107 - 2120z	05 Dec	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Siberia)*	JPL	WED
		(2107z)	*NR 14 CK 91 67 1206 E511 RMKS 5.210 TO 54.. 5071 5340 BT* (2110z) TU.. BADB UT7T6 5TA5 .D467 ... (Cont'd)		
		(2124)	*NR 15 CK 91 67 1206 0528 RMKS 5..1 TO 5482 5071 52.1 BT* 74.6 4656 ... (Cont'd) (2118z) (Return to R/S 2124z on all 3 freqs)		
(also 3776)*	1749 - 1750z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)*	JPL	THU
(also 3776)*	2106 - 2107z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia) *	JPL	THU
(also 3776)*	1558 - 1559z	07 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia) *	JPL	FRI
	1829 - 1830z	07 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
(3776 only)	1957 - 2013z	07 Dec	(In tfc) (// 3797 AND 4512 in R/S) (Remote Tuner Siberia)	JPL	FRI
			(In tfc – 1957z - //3797 still in R/S) 4A4A 46T. 7U.4 DT5T ... (Cont'd) K K (1959z) R R E BT BT UN5T UDT. D7D. K (2000z) R R R R (To voice very briefly - Silent) (2001z) (Some sort of data mode – 2002z) (Data mode stops - Return to voice briefly – 2008z) (Lost remote tuner at 2013z, but had the chance to check //3797 and 4512 which were both active with DRV8 R/S)		

(My conclusion is that DRV8 has 3 frequencies in parallel at the same time!- Previously thought this might have been a spurious emission or harmonic)

(also 6773)**	2255 - 2259z	07 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
			*****Note: Now this is interesting!***		
3797//4512//6773//8040					
	2315 - 2316z	07 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
			Note: Now this is even more interesting!!! Obviously has at least 4 transmitters available! 3776 is N/H at this time.		
(6773//8040)	0034 - 0035z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(6773 0nly)	0340 - 0341z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4512//3797)	1131 - 1132z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4512//3776//3797)	1217 - 1218z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1902 - 1903z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
			Note: DRV8 active on 3 frequencies now		
(3776//3797)	1601z	08 Dec	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Siberia)	JPL	SAT
			(In tfc – // 3797 - N/H on // 4512 - 1558z) 3763 A.67 4NNA AAN4 .66U ..N6 64UU U5T4 5TAA (Cont'd) AR (1608z – Return to R/S)		
(4512//3776//3797)	1758 - 1759z	09 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	2135 - 2136z	09 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(4512 only)	1436 - 1437z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(4512 only)	1859 - 1900z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(4512//3797)	1553 - 1554z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4512//3797)	1910 - 1911z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4512//3797)	1410 - 1411z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(4512//3797)	1531 - 1532z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4512//3797)	1833 - 1834z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4512//3776//3797)	2218 - 2218z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4512//3797)	1158 - 1152z	12 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
(3776//3797)	1655 - 1656z	12 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
3797//4512//6773//8040					
	2314 - 2315z	12 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
			Note: Once again, DRV8 has 4 transmitters up and running at the same time!		
(6773//8040)	0005 - 0006z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
	0338 - 0339z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2320 - 2321z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(4512//3797)	1009 - 1010z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(4512 only)	1528 - 1529z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(4512//3776//3797)	1559 - 1600z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2041 - 2042z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	1554 - 1555z	17 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	2125 - 2126z	17 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(3797 only)	1408 - 1409z	18 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(3797 only)	1639 - 1649z	18 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4512//3797)	2030 - 203 1z	18 Dec	(In tfc - UGT COMM msg) V H2FL (x3) DE DRV8 (x2) (Cont'd)	JPL	TUE
			Note: UGT COMM msg sent - mostly U/R due to tuner clipping the signal.		
(3797 only)	2015 - 2016z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
(6773//8040)	0509 - 0510z	22 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4512//3776//3797)	1408 - 1409z	22 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1548 - 1549z	22 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1937 - 1938z	22 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(3797 only)	1316 - 1317z	23 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
3797//3816//4512			Note: New frequency for DRV8!		
	1801 - 1802z	23 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN

4225//5500

(5500 only)	1111 - 1112z	03 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(5500 only)	1507 - 1508z	03 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	1017 - 1018z	04 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	1338 - 1339z	04 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(5500 only)	1409 - 1410z	04 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Siberia)	JPL	TUE
	2128 - 2129z	05 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	2300 - 2301z	05 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
	1738 - 1739z	06 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2108 - 2109z	06 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	1556 - 1557z	07 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	1825 - 1826z	07 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
(5500 only)	2216 - 2217z	07 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
(5500 only)	1112 - 1113z	08 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4225 only)	1553 - 1554z	08 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4225 only)	1913 - 1914z	08 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1806 - 1807z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	2129 - 2130z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(4225 only)	1431 - 1432z	10 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	1547 - 1548z	10 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4225 only)	1855 - 1856z	10 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(4225 only)	1905 - 1906z	10 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4225 only)	1402 - 1404z	11 Dec	(In tfc) V 7NPE (x3) DE QV5B (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
			(In tfc – 1402z) 30/G68/7024 AR VV UGT COMM BT 4591/2230/G68/7024 AR (Return to R/S 1403z)		
(4225 only)	1825 - 1826z	11 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4225 only)	2029 - 2030z	11 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4225 only)	1700 - 1701z	12 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
(4225 only)	1441 - 1442z	13 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(4225 only)	2046 - 2047z	13 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(4225 only)	1552 - 1553z	17 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4225 only)	2123 - 2124z	17 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4225 only)	1352 - 1253z	18 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4225 only)	1643 - 1644z	18 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4225 only)	1745 - 1746z	18 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
4385//NRH	1824 - 1830z	03 Dec	VV MQ6D (Cont'd) (Mon) (Remote Tuner Siberia)	JPL	MON
			VV MQ6D K (Sent several times - 1824z) VV 5YFJ K (Sent several times - lost remote tuner @ 1830z)		
4474//NRH	2339 - 2340z	03 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1501 - 1502z	04 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	TUE
	2126 - 2127z	05 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	2255 - 2256z	05 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	WED
	2126 - 2127z	06 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	THU
	1745 - 1746z	07 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
	2208 - 2209z	07 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	FRI
	0056 - 0057z	08 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	SAT
	1547 - 1548z	08 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	SAT
	2050 - 2051z	09 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	SUN
	2105 - 2106z	10 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1722 - 1723z	11 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
	1804 - 1805z	12 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	WED
	2225 - 2226z	12 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	WED
	1540 - 1546z	13 Dec	V JF3M (x3) DE LG5P (x2) (Cont'd) (Remote Tuner Sweden)	JPL	THU
	2215 - 2218z	14 Dec	V JF3M (x3) DE LG5P (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
		Note: Was searching for CZT2 on this frequency. Has call sign changed or operator is used the wrong R/S?			
	1934 - 1937z	14 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Finland)	JPL	FRI
		Note: Returned to normal R/S			
	2221 - 2222z	16 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Finland)	JPL	SUN
	1249 - 1250z	17 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	2100 - 2101z	17 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
	1702 - 1703z	18 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	TUE
	2242 - 2243z	18 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
	2032 - 2033z	21 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	FRI
	1628 - 1629z	22 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Russia)	JPL	SAT
	0128 - 0129z	23 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote Tuner Sweden)	JPL	SUN

4590//7607

(4590 only)	1129 - 1130z	08 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1916 - 1917z	08 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(7607 only)	1113 - 1114z	03 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(7607 only)	1509 - 1510z	03 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	1339 - 1340z	04 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(4590 only)	1411 - 1412z	04 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4590 only)	2131 - 2132z	05 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
(4590 only)	2302 - 2303z	05 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	WED
(7607 only)	1740 - 1741z	06 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(4590 only)	1443 - 1444z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(4590 only)	1531 - 1532z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU

	1611 - 1612z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	1610 - 1611z	17 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	2128 - 2129z	17 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(4590 only)	1411 - 1412z	18 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4590 only)	1647 - 1648z	18 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(4590 only)	1747 - 1748z	18 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(4590 only)	2255 - 2256z	18 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
(4590 only)	1411 - 1412z	22 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4590 only)	1555 - 1556z	22 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(4590 only)	1940 - 1941z	22 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
4860// 6840	1120 - 1125z	03 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	MON
	1520 - 1525z	03 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	MON
(6840 only)	2120 - 2125z	03 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	MON
(6840 only)	2120 - 2125z	06 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	THU
(6840 only)	2220 - 2225z	07 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Sweden)	JPL	FRI
(6840 only)	2320 - 2325z	07 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	FRI
(6840 only)	1220 - 1225z	08 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	SAT
(6840 only)	1920 - 1925z	10 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	MON
	1420 - 1425z	11 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	TUE
(6840 only)	1720 - 1725z	12 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	WED
(6840 only)	1020 - 1025z	13 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	THU
(6840 only)	2019 - 2024z	21 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	FRI
	2319 - 2024z	21 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	FRI
(6840 only)	1619 - 1624z	22 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Sweden)	JPL	SAT
(6840 only)	1320 - 1325z	23 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	SUN
(6840 only)	1820 - 1825z	23 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Siberia)	JPL	SUN
5230//3642					
(3642 only)	1635 - 1636z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	1656 - 1657z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	MON
	2341 - 2342z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	MON
(5230 only)	0027 - 0029z	04 Dec	(In tfc) V DKG6 (x3) DE 3A7D (x2)(Cont'd) (Remote Tuner Siberia)	JPL	TUE
			SVC RW 3416.6762 . 06.4.D16. 110.5 AR ... AR (Return to R/S 0028z)		
	1744 - 1745z	06 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	2100 - 2101z	06 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(3642 only)	1150 - 1151z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	SAT
(3642 only)	1552 - 1553z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	THU
(5230 only)	1550z	21 Dec	V DKG6 DKG6 DKG6 de 3A7D 3A7D]	FN	FRI
5278// NRH	0023 - 0024z	04 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	0943 - 0944z	04 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	1018 - 1020z	04 Dec	(In tfc) V GKVZ (x3) DE Q7NW (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
			3A74 T5D6 I.3...(Cont'd- mostly U/R)		
	0031 - 0032z	08 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	0343 - 0344z	08 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	0022 - 0023z	10 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	0356 - 0357z	10 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	1440 - 1441z	10 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	0340 - 0341z	13 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	1018 - 1019z	13 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	0512 - 0513z	22 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	0606 - 0607z	23 Dec	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
5763//8789		Note: 5763 is a new frequency for GNXG!			
	1015 - 1016z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
5810//NRH	2029 - 2030z	13 Dec	V JF3M (x3) DE LG5P (x2) (Cont'd)(Thurs) (Remote Tuner Russia)	JPL	THU
5801//10180	1115 - 1116z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
(10180 only)	0413 - 0414z	04 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(10180 only)	0413 - 0414z	04 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	0947 - 0948z	04 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(10180 only)	1012 - 1013z	04 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(10180 only)	0336 - 0337z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(10180 only)	0411 - 0412z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	SAT
(10180 only)	1136 - 1137z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	1141 - 1142z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	SAT
(10180 only)	0352 - 0353z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(5801 only)	1144 - 1152z	12 Dec	(In tfc) V DKG6 (x3) DE 3A7D (x2)(Cont'd) (Remote Tuner Siberia)	JPL	WED
		(1147z)	(In tfc) 3TD7 7TT. 4T7D 7T4D 47D.. (Cont'd) AR QSL ? (Return to R/S – 1151z)		
(10180 only)	0312 - 0313z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	THU
(5801 only)	0319 - 0320z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Sweden)	JPL	THU
	1013 - 1014z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(5801 only)	0410 - 0411z	18 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE

(10180 only)	0516 - 0517z	22 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(10180 only)	0608 - 0609z	23 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
6773//8040	0012 - 0014z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	0051 - 0117z	04 Dec	(In tfc) V H2FL (x3) DE DRV8 (x2)(Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
			4U54 N364 7D.. 7U4. .T4.. (Cont'd) (Lost remote tuner 0117z)		
(8040 only)	0405 - 0406z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	0418 - 0419z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	2313 - 2314z	05 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	WED
	0016 - 0018z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
	0345 - 0346z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(8040 only)	2351 - 2352z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	0349 - 0350z	18 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
(6773 only)	2252 - 2253z	18 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Russia)	JPL	TUE
(6773 only)	2415 - 2416z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	FRI
	0110 - 0111z	23 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
	0611 - 0612z	23 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(8040 only)	0825z	31 Dec	V H2FL H2FL H2FL DE DRV8 DRV8	AB	MON
6840//10640	1020 - 1025z	04 Dec	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (Remote Tuner Hong Kong)	JPL	TUE
7582//8110	0438 - 0439z	03 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	0046 - 0047z	04 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	0400 - 0401z	04 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(8110 only)	2349 - 2350z	07 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
(8110 only)	0029 - 0030z	08 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(7582 only)	2347 - 2348z	11 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	0001 - 0002z	13 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(7582 only)	0104 - 0105z	23 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	SUN
	0557 - 0558z	23 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	SUN
8101//NRH			Note: This is a new frequency for this station!		
	0344 - 0345z	18 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
8789//10779					
(8789 only)	0442 - 0443z	03 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	MON
	0018 - 0022z	04 Dec	(In tfc) V WITN (x3) DE GNXG (x2)(Cont'd) (Remote Tuner Siberia)	JPL	TUE
			NW SVC 253 8313 6453 QAW K159899 K P 74.. AR HW K NR 6 QSL . (Return to R/S 0019z)		
	0048 - 0049z	04 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
	0402 - 0403z	04 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(8789 only)	0953 - 0954z	04 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	TUE
	1015 - 1016z	04 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(8789 only)	2305 - 2306z	07 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	2354 - 2355z	07 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	FRI
	0027 - 0028z	08 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
	0347 - 0348z	10 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	MON
(8789 only)	2349 - 2350z	11 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	TUE
(10779 only)	0003 - 0004z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Hong Kong)	JPL	THU
(8789 only)	2329 - 2330z	13 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
(10779 only)	0342 - 0343z	18 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	THU
	0506 - 0507z	22 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SAT
(8789 only)	0118 - 0119z	23 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(8789 only)	0603 - 0604z	23 Dec	V WITN (x3) DE GNXG (x2) (Cont'd) (Remote Tuner Siberia)	JPL	SUN
(8789 only)	0823z	31 Dec	V WITN WITN WITN DE GNXG GNXG	AB	MON

M94 CW, MCW, partner station to V24 Virtually unheard in Europe so we rely on our Americas monitors

M97 CW, partner station to V30 Recently allocated as M97. 10375kHz Starts 1453 - 1500z (Variable) .

Msg sent three times with a one minute pause between sendings.

10375	1458 - 1517z	01- 14 Nov	Msg SD76 SN50 reported on 01, 08, 13, 14 Nov	All other days NRH	BR

Two new consecutive msgs sent on Fri 16 Nov, SD77 SD80 & SD78 SD30. The header, which had changed to TK TK TK for msg SD76 has now returned to the previously used HT HT HT. The 2nd msg is sent immediately after the first with a one minute pause between each complete sending. There are three complete sendings of the two msgs..

10375	1458 - 1538z	15- 30 Nov	Msgs SD77 SN80 & SD 78 SN30 reported on 16, 17, 19, 20, 22, 27, 28 Nov All other days NRH
10375	1457 - 1537z	01- 31 Dec	Msgs SD77 SN80 & SD 78 SN30 reported on 04, 05, 06, 07, 14, 18, 19, 20, 21*, 25, 28 Dec All other days NRH *Gap in transmission 1532 - 1535z

Due to the poor reception of this signal in both the UK and Canada, GlobalTuners receivers in Hong Kong, Johannesburg & Sydney were used frequently to confirm the msg detail. Since the middle of October the signal in S.E. England has improved considerably and copy is now possible much of the time.

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

SD76 KKK SD76 KKK SD76 KKK TK TK TK

SN50 SN50 SN50

45656 66259 62531 09484 90369
23879 74441 06207 59275 63217
44826 66433 67956 03943 10618
05002 27527 61263 82102 35320
44656 42337 47411 04454 88965
13300 75130 77058 57907 44463
41489 69386 01806 23714 62914
25668 39067 89831 35419 63081
56606 90302 87116 86784 03890
39347 18729 08231 49031 77972

KKKKKKKKKKKKKKKKKKKKKKKKK
Courtesy BR

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

SD77 KKK SD77 KKK SD77 KKK HT HT HT

SN80 SN80 SN80

03027 64639 97559 24055 98689
77601 57860 78516 99919 51031
54128 90345 56928 32417 51537
00723 06025 26456 99589 63807
75650 73508 50681 57982 99179
90731 30178 31861 22348 50620
34059 92307 15680 19777 64771
95511 00400 48207 67570 15172
64071 13711 32016 40818 74135
15024 77752 31057 73883 64394
53865 38581 31659 04135 84513
92403 32488 97974 68920 63518
23851 63151 18567 91970 63497
47329 04563 02796 48637 55414
75275 99787 76891 88822 52505
55329 35446 63857 29976 41474

KKKKKKKKKKKKKKKKKKKKKKKKK
Courtesy BR

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

SD78 KKK SD78 KKK SD78 KKK HT HT HT

SN30 SN30 SN30

01171 79981 95967 81504 06802
58974 55907 93652 00263 67176
45133 10335 70938 00364 36240
93609 78133 06601 05947 58189
68475 60683 24692 10162 54449
89063 17582 67832 14938 31535

KKKKKKKKKKKKKKKKKKKKKKKKK
Courtesy BR

M97 - Table showing days & dates of transmissions (By days)

2012	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F
May		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Jun					01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
July							01	02	03	04	05	06	07	08	09	10	11	12	13
Aug			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
Sep						01	02	03	04	05	06	07	08	09	10	11	12	13	14
Oct								01	02	03	04	05	06	07	08	09	10	11	12
Nov				01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Dec						01	02	03	04	05	06	07	08	09	10	11	12	13	14

2012	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	M
May	19	20	21	22	23	24	25	26	27	28	29	30	31						
Jun	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
July	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Aug	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Sep	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
Oct	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Nov	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
Dec	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			

SD70 SD71 SD72 SD73 SD74/SD73

SD74 SD75 SD76 SD77/SD78

M97 - Table showing days & dates of transmissions (By dates)

2012																		
May	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Jun	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Aug	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Sep	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Oct	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Nov	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Dec	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18

2012																		
May	19	20	21	22	23	24	25	26	27	28	29	30	31					
Jun	19	20	21	22	23	24	25	26	27	28	29	30						
July	19	20	21	22	23	24	25	26	27	28	29	30	31					
Aug	19	20	21	22	23	24	25	26	27	28	29	30	31					
Sep	19	20	21	22	23	24	25	26	27	28	29	30						
Oct	19	20	21	22	23	24	25	26	27	28	29	30	31					
Nov	19	20	21	22	23	24	25	26	27	28	29	30						
Dec	19	20	21	22	23	24	25	26	27	28	29	30	31					

The above tables may have one or two omissions or errors but are otherwise an accurate log of the output from M97 over the period of eight months.

Although some patterns seem to be evident no schedule can be deduced from the tables. The only conclusion that can be drawn from them is that the station never seems to appear on a Sunday!

SK01 (Data Mode generic classification, Cuban TX's) See Control List & NL49 for old RDFT detail. **See P29-30 of NL72 for details of New Format SK01**

[with M08a and V02a]

November 2012:

5898	0603- 0653z	14 Nov	SK01 (x 11 transmissions 45" length each) seems to be same message)	DanAR	WED
	0615	21 Nov	SK01 [i/p] Strong	gil	WED
	0516z	07 Dec	SK01	PLdn	FRI

Marker Beacons (MX MXI)

8000	0805z	19 Nov	'C'	RNGB	MON
13332	1100z	19 Nov	'C'	RNGB	MON
3335	2218z	12 Dec	'V' (Cont'd) (Remote Tuner Sweden)	JPL	WED
3593.5	1415z	18 Dec	'K' (Cont'd) (Remote Tuner Siberia)	JPL	TUE
3657	2218z	12 Dec	'V' (Cont'd) (Remote Tuner Sweden)	JPL	WED
3658	2340z	13 Dec	'V' (Cont'd) (Remote Tuner Siberia)	JPL	THU
5153.8	1145z	08 Dec	'P' (Cont'd) (Remote Tuner Sweden)	JPL	SAT
5157//6918	1145z	08 Dec	'L' (Cont'd) (Remote Tuner Sweden)	JPL	SAT
5342	0326z	13 Dec	'V' (Cont'd) (Remote Tuner Sweden)	JPL	THU
7039.3	0833 / 1317z	31 Dec	'K' MX Beacon "K"	AB	MON
7039.4	1317z	31 Dec	'M' MX Beacon "M"	AB	MON
8495.2	0831z	31 Dec	'F' MX Beacon "F"	AB	MON
8495.4	1317z	31 Dec	'M' MX Beacon "M"	AB	MON

Contributors: AB, Anon, ATC, BR, CB, DanAR, FN, GD, Ggs, gil, GN, HFD, HT, JPL, MG, PLdn, PP, RNGB, tiNG, Westt1us.
Thank you all for your logs.

MIXED MODE STATION

HM01
November2012

5883kHz0656z	17/11[34061 39841 77571 27911 59151 90871] strong	gil	SAT
5898kHz0756z	17/11[34061 39841 77571 27911 59151 90871] strong	gil	SAT
5947kHz0908z	17/11[34061 39841 77571 27911 59151 90871] strong	gil	SAT
5898kHz0500z	18/11[27911 59151 90871 34061 39841 77571 all + SK01] Strong	PLdn	SUN
5800kHz0600z	18/11[27911 59151 90871 34061 39841 77571 all + SK01] Strong	PLdn	SUN
9063kHz0644z	18/11[34061 39841 77571 27911 59151 90871] strong	gil	SUN
5883kHz0704z	18/11[27911 59151 90871 34061 39841 77571 all + SK01] Strong	PLdn	SUN
5898kHz0800z	18/11[27911 59151 90871 34061 39841 77571 all + SK01] Strong	PLdn	SUN
6768kHz1606z	19/11 QRN-4	Ggs	MON

Lots of 9s in grps. Heavy QRN on this side no decode possible. Unless it was /covered by QRN session did not begin until 1606z.

9124kHz0620z	20/11 (Fair signal)	RNGB	TUE
8180kHz0815z	20/11 (Very strong)	RNGB	TUE
6768kHz1600z	20/11 end uk	Ggs	TUE
11435kHz0618z	21/11[34061 39841 77571 27911 59151 90871] strong	gil, Ggs	WED
11532kHz0630z	21/11[27911 59151 90871 34061 39841 77571] strong	gil	WED
5800kHz0725z	21/11[27911 59151 90871 34061 39841 77571] strong	gil, Ggs	WED
8186kHz0811z	21/11[27911 59151 90871 34061 39841 77571] strong	gil, Ggs, RNGB	WED
9063kHz0907z	21/11 [i.p.] weak, digi QRM in USB, via Uni Twente webSDR	MG	WED
9240kHz1000z	21/11	RNGB, MG	WED
9124kHz0611z	22/11[86485 46605 36162 69641 51905 68185]0636z QSA5 QSB3	MG	THU
9063kHz0637z	22/11[86485 46605 36162 69641 51905 68185]0658z QSA5 QSB3 digi QRM in USB	MG	THU
8180kHz0800z	22/11	RNGB, Ggs	THU
6768kHz1600z	22/11 end 164?z	Ggs	TH

11532kHz0630z	23/11[69641 51905 68185 86485 46605 61965] 0649z QSA2 QSB3	MG	FRI

5898kHz0506z	24/11[86484 46604 36161 10494 51904 68184 + SK01]Strong, Break in Tx 0523 to 0526z	PLdn	SAT
5800kHz0600z	24/11[86484 46604 36161 10494 51904 68184 + SK01]Strong	PLdn	SAT
5883kHz0700z	24/11[86484 46604 36161 10494 51904 68184 + SK01]Strong	PLdn	SAT
8186kHz0838z	24/11[46604 ?6161 ?0494 51904 68184 86184] weak via Univ.Twente webSDR	MG	SAT
9063kHz0905z	24/11 i.p. audible, digi QRM in USB, via Univ. Twente webSDR	MG	SAT

December 2012

5855kHz0500z	12/12[15533 09971 28332 07242 16534 92014]	Anon	WED

15533 - 73620754.txt
09971 - 62039551.txt
28332 - 85662214.txt
07242 - 39530948.txt
16534 - 46353064.txt
92014 - 64646317.txt

All "txt" files are unremarkable and apparently just carry random hex values.

5930kHz0930z	15/12[15533 09971 28332 07242 16534 92014]	Anon	SAT

First 3grps corrupted by simultabeous SK01 [26721844.txt (R2) and 61535647.txt]
Last three groups:

07242 - 39530948.txt
16534 - 46353064.txt
92014 - 64643617.txt

6768kHz1600z	03/12[42487 69042 43404 39055 42265 19524]	Anon	MON
6768kHz1600z	05/12[15533 09971 28332 07242 16534 92014]	Anon	WED
6768kHz1600z	11/12[15533 09971 28332 07242 16534 92014]	Anon	TUE
17480kHz2200z	18/12[38025 92035 18335 68145 72125 6603605]	Anon	TUE

Anon notes, ‘Slight change in format. 38025 pause, lead in tones, pause, ~ 30 second RDFT transmission, pause, 92035 and so on. All transmissions approximately 30 seconds in length. Not sure if any decodes will be forthcoming they were having transmitter problems with signal strength varying significantly.’

5855kHz0500z	18/12[68145 72125 66035 38025 92035 18335]	Anon	TUE
5855kHz1000z	18/12[68145 72125 66035 38025 92035 18335]	Anon	TUE
10345kHz0600z	18/12[68145 72125 66035 38025 92035 18335]	Anon	TUE
17540kHz2300z	18/12[68145 72125 66035 38025 92035 18335] this is the correct sequence, I had it wrong at 2200z	Anon	TUE

All of these were in the revised format but between 976 and 1011 bytes in size.

Decodes produced the files listed below.

68145 53826185.txt
72125 67292066.txt
66035 65976809.txt
38025 39645122.txt
92035 39530112.txt
18335 88962893.txt

New schedules apparent [thanks Anon]

5855kHz0500z	21/12[05096 35364 43635 20343 33987 81905] 72883542.txt 72051405.txt 12495993.txt 58829695.txt 90499237.txt 56813491.txt
10345kHz0600z	21/12[05096 35364 43635 20343 33987 81905]

72883542.txt
72051405.txt
12495993.txt
58829695.txt
90499237.txt
56813491.txt

9240kHz0900z	21/12[05096 35364 43635 20343 33987 81905]
5855kHz1000z	21/12[05096 35364 43635 20343 33987 81905]
10715kHz2200z	21/12[05096 35364 43635 20343 33987 81905] New schedule poor modulation
11530kHz2300z	21/12[05096 35364 43635 20343 33987 81905] New schedule, poor modulation
10345kHz0600z	23/12[68145 72125 66035 38025 92035 18335]
9065kHz0800z	23/12[68145 72125 66035 38025 92035 18335] New schedule/frequency
9240kHz0900z	23/12[68145 72125 66035 38025 92035 18335]
5855kHz1000z	23/12[68145 72125 66035 38025 92035 18335]

10715kHz2200z 23/12[05096 35364 43635 20343 33987 81905]
11530kH 2300z 23/12[05096 35364 43635 20343 33987 81905]

11635kHz2100z 23/12[68145 72125 66035 38025 92035 18335]
16180kHz2100z 22/12[05096 35364 43635 20343 33987 81905] poor modulation.

11635kHz2100z 26/12[66635 62865 83695 60635 13042 00607] Anon WED

Decodes as follows
66635 86706691.txt
62865 34603996.txt
83695 32937929.txt
60635 74310553.txt
13042 55981161.txt
00607 no decode

It seems that most of the text file names have paired digits in them 66, 99, 55, 11 etc.

10715kHz2200z 26/12[05096 35364 43635 20343 33987 81905] Anon WED
11530kHz2300z 26/12[05096 35364 43635 20343 33987 81905] Anon WED

16180kHz2100z 27/12 Carrier up but no TX heard Anon THU
17480kHz2200z 27/12[02888 05607 11785 70132 20866 01274] Anon THU

Decodes
02888 12375883.txt
05607 05537984.txt
11785 36330875.txt
70132 24169729.txt
20866 16300692.txt
01274 36431662.txt

17540kHz2300z 27/12[02888 05607 11785 70132 20866 01274] Anon THU

5855kHz0507z 28/12[02888 05607 11785 70132 20866 01274]Very strong PLdn FRI

12180kHz1000z 29/12[01274 02888 05607 11785 70132 20866] RNGB SAT

13435kHz0700z 29/12[01274 02888 05607 11785 70132 20866] RNGB SAT

As a result of analysis of transmission by Anon, we are able to offer a tentative HM01 schedule:

	Mon	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**	**Sun**
0000							
0100							
0200							
0300							
0400							
0500	5855	5855	5855		5855		5855
0600	10345	10345	10345		10345		10345
0700	9330		9330		9330	13435	9330
0800	9065				9065		9065
0900	9240		9240		9240		9240
1000	5855 9155	5855	5855	*12180*	5855 9155	12180	5855
1100							
1200							
1300							
1400							
1500							

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1600							
1700							
1800							
1900							
2000							
2100	11635	16180	11635	16180	10735	16180	11635
2200	10715	17480	10715	17480	10715	17480	10715
2300	11530	17540	11530	17540	11530	17540	11530

NOTES: Numbers in *Italics* indicate that the TX was reported as V02a but is a suspected HM01

VOICE STATIONS

E06

PoSW's logs:

First + Third Thursdays in the Month 2030 UTC Schedule:-
1-Nov-12, 4,836 kHz:- calling, "321", DK/GC "134 134 15 15". S9 signal, good audio with none of the rasping noise on the speech noted on this schedule from time to time. Heterodyne from the carrier of a weak BC station on 4,835, presumably in the tropics somewhere. The expected seasonal change of frequency from 5,189 kHz used in September and October.

15-Nov-12, 4,836 kHz, "321" and "134 134 15 15" again, but the rasping, tearing noise on the speech is back. The BC station 1 kHz lower stronger than last time .Just before E06 started his performance the broadcaster was up with an appropriate record; a theme from a James Bond film, "You Only Live Twice" sung by a YL. Probably the Nancy Sinatra version which, according to my copy of "Collins Complete UK Hit Singles" got to number 11 in 1967.

20-Dec-12, 4,836 kHz, started approx 25 seconds after the half hour, call "321", DK/GC "853 853 15 15". Good signal with no funny noises on the audio. Groups 5 and 7 were "67381".

Friday Following the First and Third Thursdays in the Month 2130 UTC Schedule:-
2-Nov-12, 4,760 kHz:- calling "472", DK/GC "274 274 15 15", good audio. Seasonal change of frequency from 5,197 kHz of the past two months. E06 was warming up on 4,760 almost an hour earlier; when checked at 2032z was heard calling "1-2-3-4-5-6-7-8-9" over and over, no "0". Stopped on a "6" 2039z.

16-Nov-12, 4,760 kHz:- "472" and "274 274 15 15" again, and the unpleasant noise on the speech is back as with yesterday's 2030z sending.

7-Dec-12, 4,760 kHz:- call "472", DK/GC "204 204 15 15". S9 signal, still with the rasping noise on the speech.

21-Dec-12, 4,760 kHz, "472" and "204 204 15 15" again. S9+ with no rasping on the audio. Started around 50 seconds late.

First + Third Thursdays in the Month 0600 + 0700 Schedule:-
I couldn't find this schedule on the first Thursday in November, the 1st, but with the posting of of E2K the Prediction List suggested 16,200 + 18,200 kHz:-

15-Nov-12:- 0700 UTC, 18,200 kHz, calling "507", DK/GC "369 369 124 124". Not too strong, S3 to S4. Unable to find a transmission at 0600z on 16,200.

16-Nov-12, Friday:- 0616 UTC, 16,200 kHz, "next day repeat" transmission in progress. Not heard at 0600 UTC but checking again sixteen minutes and two Shredded Wheat later was a fairly respectable S5 to S6. Ended 0625z with, "369 369 124 124 00000".
0700 UTC, 18,200 kHz, second sending. Noticed that 5F group No. 4 was "44444".

I lost track of this one in December.

A New (?) Monday Schedule:-
19-Nov-12:- 1851 UTC, 6,887 kHz, tuning around at nine minutes to seven in the evening ,
surprised to find a strong E06 in progress with a "full message" transmission. Not noted before. Ended 1854z with, "726 726 58 58 00000". Must be an unusual start time, certainly not the usual on-the-hour or half-hour. Did a search at around 1945z to see if there was a repeat but nothing found.

20-Nov-12, Tuesday;- a "next day repeat", 1840 UTC, 6,887 kHz. On the chance that such a transmission might show up, I put a receiver on 6,887 and was rewarded with carrier plus audio tone at 1828z and a single "634" shortly afterwards. Started at 1840 UTC, the unusual start time, call "634", DK/GC "726 726 58 58".
6,887 is the frequency used by the Thursday 1830 UTC G06 German YL during the summer months, but I expect that's just a coincidence - isn't it?
This appears to have been a "one off":- looked for it on Mondays 26-November, 3, 10 and
17 December but nothing found.

Second Wednesday in the Month 1920 + 2020 UTC Schedule:-
Completely forgot to look for this one in November, found one sending only in December:-

12-Dec-12:- 1920 UTC, 3,622 kHz, found approx two minutes into the transmission, “154 154 154 00000”. S8 signal inside the 80 metre amateur band and had the same unpleasant “rasping” noise observed on the Thursday and Friday E06 schedules. No sign of a second sending at 2020 UTC, expected to find it on a lower frequency perhaps in the region of 3,100 to 3,300 kHz. Which made me wonder if this has done a time shift of one hour and this was actually the second sending.

Sunday Following the Second Wednesday in the Month 1120 + 1220 UTC Schedule:-
18-Nov-12:- 1120 UTC, 6,842 kHz, “154 154 154 00000”. Very weak signal, only just readable with the receiver in USB mode. Unable to find a repeat at 1220 UTC, E2K73 prediction list suggests 5,913 kHz but nothing heard.

16-Dec-12:- 1120 UTC, 6,842 kHz, “154 154 154 00000”, same frequency as in November but a much stronger signal, S4 to S5. May have started late, tuned in approx. 1122 UTC, carried on until well after 1124.
1224 UTC, 5,866 kHz, second sending - and this *did* start late. Noted a carrier on 5,866 but no voice heard at 1220z so tuned away to search further. On tuning across 5,866 at 1224z voice was in progress. Stopped just before 1228z. Strength S3, not strong but good copy with receiver in USB mode.

RNGB’s logs:

E06 November log:

Thursday 1st	06:00	16200	‘507’ 369 124 43214 28127 40115 44444 65972.....88496
	07:00	18200	‘507’ 389 124 43214 28127 40115 44444 65972.....88496
	20:30	4836	‘321’ 134 15 63846 27391 03728 82573 34560.....10911
Wednesday 14th	19:20	3622	‘154’ 00000
	20:20	3812	‘154’ 00000
Thursday 15th	07:00	18200	‘507’ 369 124 43214 28127 40115 44444 65972.....88496
	20:30	4836	‘321’ 134 15 63846 27391 03728 82573 34560.....10911
Friday 16th	21:30	4760	‘472’ 274 15 64738 46374 36194 37075 47389.....53511
Friday 23rd	15:05	13367	‘759’ 613 48 30452 11832 22300 42712 61219.....80340
	16:05	16291	‘759’ 613 48 30452 11832 22300 42712 61219.....80340
Wednesday 28th	16:00	9300	‘842’ No message
Thursday 29th	10:45	11128	‘509’? 783 25 in progress ; 34395 15246.....51027

E06 December log:

Thursday 6th	07:00	15945	‘923’ 567 104 80051 72595 48926 84915 91206.....65351
	20:30	4836	‘321’ 853 15 45361 74528 56326 85234 67381.....49075
Friday 7th	06:00	13910	‘923’ 567 104 80051 72595 48926 84915 91206.....65351
	07:00	15940	‘923’ 567 104 80051 72595 48926 84915 91206.....65351
Thursday 20th	07:00	15940	‘923’ 567 104 80051 72595 48926 84915 91206.....65351
Friday 21st	21:30	4760	‘472’ 204 15 27463 94739 18375 28401 27492.....28375

Onto others logs:

November2012

3622kHz1920z 14/11[154 00000(s)] 1924z Weak QRN4 QSB3 Spectre WED

4760kHz2130z 02/11[472 274 15 64738 ... 53511 274 15 00000(s)] Strong signal, moderate/strong noise FR, Spectre FRI

472 274 15
64738 46374 36194 37075 47389
27112 64729 64830 64388 13846
64739 37194 37400 64832 53511
274 15 00000 *Courtesy FR, Spectre*

2130z 16/11[472 274 15 64738 ... 53511 274 15 00000(s)] 2137z Fair, QRM2 (7m14s) PLdn, Spectre FRI

4836kHz2030z 01/11[321 134 15 63846 … 10911 134 15 00000(s)] 2037z Strong (6m59s) HJH, FR, Spectre THU

321 134 15
63846 27351 37277 52753 14830
34560 17493 37254 27483 53859
26483 18403 36256 85297 10911
134 15 00000(s) *Courtesy HJH, FR Spectee*

2030z 15/11[321 134 15 63846 … 10911 134 15 00000(s)] 2037z Fair, QRN3 (7m17s) PLdn, Spectre THU

13367kHz1505z 22/11[759 613 48 30452 … 80340 613 48 00000]1517z S9+20 MP THU

759 613 48
30452 11832 22300 42712 61219
41487 33941 39134 41354 66939
58455 14645 17105 04185 74516
31147 15649 52350 69053 54698
99372 58903 32013 73105 72613
47061 62172 68693 64263 22596
69908 75945 34703 02222 87889
78688 80477 30752 25609 26515
35172 79214 28707 75134 89913
41108 29011 80340 613 48 00000

16200kHz0600z 01/11[507 369 124 43214 ... 88496 369 124 00000(f)] 0626z Fair QRN3 QSB3 Spectre THU

0600z 02/11[507 369 124 43214 ... 88496 369 124 00000(f)] 0626z Fair QRN3 QSB3 Spectre FRI

18200kHz0700z 01/11[507 369 124 43214 ... 88496 369 124 00000(f)] 0726z Fair QRN3 QSB3 Spectre THU

0700z 02/11[507 369 124 43214 ... 88496 369 124 00000(f)] 0726z Fair QRN3 QSB3 Spectre FRI

E06 16200/18200kHz 0600/0700z 01/02/11 Transcript:

507 369 124
43214 28127 40115 44444 65972 70229 90903 06968 54482 71711
99522 88811 21024 08894 97150 82320 49309 23453 82780 10466
69206 14806 78854 87287 35080 50547 77229 16477 62427 68097
42661 77549 02510 68095 65994 60554 59653 16658 84256 35260
80917 15472 09819 65746 72813 02626 35837 06348 24754 88942
10149 39876 43944 51136 94810 44072 31368 30533 53472 97214
53590 10807 33764 58827 90035 73141 36902 86417 60451 52285
91672 74195 62229 41910 75014 24698 72280 22737 46359 89257
93145 11840 87933 38262 48034 56590 68206 47138 54474 21659
70666 08986 31268 55119 09820 18427 43940 43692 27344 14790
46728 48734 39192 63004 11466 84794 51590 36552 92359 31877
84356 08524 99847 42148 73190 06806 95317 07283 75184 85392
66393 28656 88496
369 124 00000 *Courtesy Spectre*

Spectre ponders, "Note there are 123 groups in the above message. Perhaps one group was not included because of the message header 507 369 124. If the group count of 123 was used maybe the message header would not work, given the number 3 could not be used twice in the header. Does this suggest that the message header does have significant importance and use in decoding the message into plain text? Most probably these numbers are entered first into a computer program, before the bulk of the message is then entered. It is highly likely the computer software is stored on a USB memory device, which can be run when the memory device is plugged into the computer. This way the decoding software would not be present on the computers hard drive if the computer contents is searched."

December 2012

3622kHz1920z	12/12[154 00000] 1924z Strong		ATC	WED
4760kHz2130z	07/12[472 204 15 27463 ... 28375 204 15 00000(s)] Strong	(7m31s)	PLdn	FRI
2131z	21/12[472 204 15 27463 ... 28375 204 15 00000(s)] 2139z Fair		PLdn	FRI
4836kHz2030z	06/12[321 853 15 45361 … 49075 853 15 00000(s)] fair, weal for 00000, lttr '3' distorted	(6m39s)	PLdn, Spectre	THU
2030z	20/12[321 853 15 45361 ... 49075 853 15 00000(s)] 2038z Strong (7m44s) ATC, PLdn	THU		

321 853 15
45361 74528 56326 85234 67381
47346 67381 56274 58629 97514
58245 08601 46073 67406 49075
853 15 00000 *Courtesy ATC, Spectre*

6842kHz1120z	16/12[154 00000] 1124z Very Weak		ATC	SUN

E07

PoSW's logs

As expected has moved by one hour with the end of summertime so still appears at the same UK local time. Most considerate!

Sunday + Wednesday Schedule, 1800 UTC Start:-
4-Nov-12, Sunday:- 1800 UTC, 8,183 kHz, "199 199 199 000", S6 with unusually good audio.
1820 UTC, 6,982 kHz, second sending, S8 with good audio, same frequencies as in Novembers of yesteryear, third sending in event of full message should be 5,938 kHz.

7-Nov-12, Wednesday:- 1800 UTC, 8,183 kHz, "199 199 199 000", reasonable audio.

18-Nov-12, Sunday:- 1800 UTC, 8,183 kHz, "199 199 199 000".
1820 UTC, 6,982 kHz, second sending, interference from two – way SSB in unknown language on HF side.

21-Nov-12, Wednesday:- 1800 UTC, 8,183 kHz, "199 199 199 000".

25-Nov-12, Sunday:- 1800 UTC, 8,183 kHz, "199 199 199 1", DK/GC "962 95" x 2.
Reasonable audio.
1820 UTC, 6,982 kHz, second sending, weak signal.
1840 UTC, 5,938 kHz, largely unreadable due to low audio and S9+ BC station on 5,940.

2-Dec-12, Sunday:- 1800 UTC, 6,982 kHz, "989 989 989 000", S9 with good audio.
1820 UTC, 5,836 kHz, second sending, heterodyne from a BC station on 5,835 removed by using the receiver in USB mode.

5-Dec-12, Wednesday:- 1800 UTC, 6,982 kHz, "989 989 989 000".

9-Dec-12, Sunday:- 1800 UTC, 6,982 kHz,"989 989 989 000", weak signal.

12-Dec-12, Wednesday:- 1800 UTC, 6,982 kHz, "989 989 989 000", S7 with good audio.
1820 UTC, 5,836 kHz, second sending, reasonable copy in USB mode.

16-Dec-12, Sunday:- 1800 UTC, 6,982 kHz, "989 989 989 000", S9 carrier, audio low.

23-Dec-12, Sunday:- 1807 UTC, 6,982 kHz, missed the start, and for a change a "full message". Ended with "000 000" after 1809 UTC.
1820 UTC, 5,836 kHz, "989 989 989 1", unable to hear DK/GC due to BC interference.
1840 UTC, 4,938 kHz, by far the best of the three transmissions, DK/GC "553 70" x 2.

Monday + Wednesday Schedule, 2000 UTC Start:-
5-Nov-12, Monday:- 2020 UTC, 6,924 kHz, “798 798 798 000”, low audio, difficult to hear.
Second sending, full schedule for November should be 7,724 + 6,924 + 5,824 kHz.

12-Nov-12, Monday:- 2020 UTC, 6,924 kHz, “798 798 798 000”, S9 signal with reasonable audio.

19-Nov-12, Monday:- 2000 UTC, 7,724 kHz, “798 798 798 000”.

21-Nov-12, Wednesday:- 2000 UTC, 7,724 kHz, very weak signal, unreadable.
2020 UTC, 7,724 kHz, “798 798 798 000”, weak signal but readable.

3-Dec-12, Monday:- 2000 UTC, 7,478 kHz, first sending on the expected frequency for December but difficult copy due to a strong broadcast station on 7,480. No mention of this in my log for December of last year, and surprisingly was the Voice of America in English. I thought VOA had long given up English language broadcasts for Europe now that both East and West of the continent are firmly under the control of Wall Street's New World Order capitalism!
2020 UTC, 6,778 kHz, second sending on a clear frequency, “472 472 472 1”, DK/GC “489 59” x 2. S9 with QSB.
2040 UTC, 5,278 kHz, third sending, S9+.

10-Dec-12, Monday:- 2020 UTC, 6,778 kHz, second sending, “472 472 472 1”, DK/GC “196 41” x 2. S9+ with excellent audio.
2040 UTC,5,278 kHz, third sending, good signal.

Thursday Schedule, 2110 UTC Start:-
1-Nov-12:- 2110 UTC, 6,777 kHz, “744 744 744 000”, good audio.
2130 UTC, 5,449 kHz, second sending, close to RAF VOLMET SSB on HF side.

8-Nov-12:- 2110 UTC, 6,777 kHz, “744 744 744 000”.
2130 UTC, 5,449 kHz, second sending.

15-Nov-12:- 2110 UTC, 6,777 kHz, very weak signal, only just detectable, carrier QRT 2112 and 28 seconds UTC which means “no message” again.
2130 UTC, 5,449 kHz, much stronger signal, S8 with QSB, “744 744 744 000”. RAF VOLMET on 5,450 very weak

29-Nov-12:- 2110 UTC, 6,777 kHz, “744 744 744 000”, weak signal.

6-Dec-12:- 2110 UTC, 6,777 kHz, “744 744 744 000”, audio much better than usual.
2130 UTC, 5,449 kHz, second sending, S9 signal with good audio. RAF VOLMET on 5,450 very weak this evening.

20-Dec-12:- 2110 UTC, 6,777 kHz and 2130 UTC, 5,449 kHz, “744 744 744 000”, both transmissions S6 to S7 with good audio.

27-Dec-12:- 2113 UTC, 6,777 kHz, missed the start at 2110z - and its a “full message” -
most unusual for this Thursday evening schedule! Weak signal with low audio, difficult copy.
2130 UTC, 5,449 kHz, “744 744 744 1”, DK/GC “427 62” x 2. Wide variation in signal strength, peaking S9 but fading down to S3 – S4 at times. Audio way down in relation to carrier.
2150 UTC, 4,483 kHz, third sending, S9+ but again deep QSB and low audio.

Wednesday E07a SSB Schedule, 2100 UTC Start:-
7-Nov-12:- 2100 UTC, 5,864 kHz, “815 815 815 000”, strong SSB signal.

14-Nov-12:- 2100 UTC, 5,864 kHz, “815 815 815 1 33633” for a full message, DK/GC “101 53” x 2. Signal strength a couple of S – points down on the usual rock crushing signal.
2120 UTC, 5,164 kHz, second sending, slightly stronger.
2140 UTC, 4,564 kHz, third sending, S9+, strongest of the three transmissions.

21-Nov-12:- 2100 UTC, 5,864 kHz, “815 815 815 000”, back to S9+.
2120 UTC, 5,164 kHz, second sending, also S9+.

5-Dec-12:- 2100 UTC, 5,864 kHz, “815 815 815 1” 33633”, DK/GC “101 53” x 2. Looks like the return of the message heard on 14 – November. Strong signal.
2120 UTC, 5,164 kHz and 2140 UTC, 4,564 kHz, repeats, both S9+.

19-Dec-12:- 2100 UTC, 5,864 kHz, “815 815 815 1 66269”, DK/GC “564 71” x 2.
2120 UTC, 5,164 kHz, second sending, S9+ signal.
2140 UTC, 4,564 kHz, third sending, S9+ and then some, very strong SSB.

Saturday E07a SSB Schedule, 0900 UTC Start:-
3-Nov-12:- 0920 UTC, 12,153 kHz, second sending, couldn't find a transmission at 0900z,
and a “full message”, “515 515 515 1 35350”, DK/GC “248 57” x 2. Weak signal.
Slightly stronger by the finish at 0927z.

10-Nov-12:- 0900 UTC, 11,553 kHz, the elusive first sending, “515 515 515 000”, very weak SSB signal.
17-Nov-12:- 0900 UTC, 11,553 kHz, and 0920 UTC, 12,153 kHz, both weak, “515 515 515 000”.

24-Nov-12:- 0900 UTC, 11,553 kHz and 0920 UTC, 12,153 kHz, “no message” again.

1-Dec-12:- 0920 UTC, 12,221 kHz, “124 124 124 000”. S6 to S7, second sending, lost track of the time and missed 0900z transmission.
8-Dec-12:- 0900 UTC, 11,121 kHz, “124 124 124 1 14643”, calling up for a “full message”.
DK/GC “736 74” x 2. Very weak signal, only just readable.
0920 UTC, 12,221 kHz, second sending, much stronger, S6 to S7.
0940 UTC, 13,421 kHz, third sending, strongest signal of the three transmissions, S8 to S9.

15-Dec-12:- 0900 UTC, 11,121 kHz, “124 124 124 000”, S6 to S7, stronger than last Saturday.
0920 UTC, 12,221 kHz, second sending.

22-Dec-12:- 0900 UTC, 11,121 kHz and 0920 UTC, 12,221 kHz, both strong signals, “124 124 124 000”.

RNGB's E07/E07a logs:

E07 November log:

Thursday 1st	21:10	6777	'744' 000
Sunday 4th	18:00	8183	'199' 000
Monday 5th	20:00	7724	'798' 000
Sunday 11th	18:20	6982	'199' 1 438 92 83464.....etc
Monday 12th	20:00	7724	'798' 000
	20:20	6924	'798' 000
Sunday 18th	18:00	8183	'199' 000
Monday 19th	20:00	7724	'798' 000
Thursday 22nd	21:10	6777	'744' 000
Friday 23rd	08:48	17441	'874' in progress, ended 69980 07365 000 000
Sunday 25th	18:00	8183	'199' 1 962 95 73640 20295 41755.....etc
Tuesday 27th	08:20	18741	'874' 1 560 91 10213 61255 53689 84653.....45188
	08:40	17441	'874' 1 560 91 10213 61255 53689 84653.....45188
Friday 30th	08:00	20841	'874' 1 728 69 13685 10470.....43328 54689
	08:20	18741	'874'1 728 69 13685 10470.....43328 54689
	08:40	17441	'874' 1 728 69 13685 10470.....43328 54689

E07a November log:

Saturday 10th	09:20	12153	'515' 000
Wednesday 14th	21:00	5864	'815' 1 33633 101 53 51966 91365 84040.....96780
Saturday 17th	09:00	11553	'515' 000
Saturday 24th	09:00	11553	'515' 000

E07 December log:

Thursday 6th	21:10	6777	'744' 000
Sunday 16th	18:00	6982	'989' 000
Monday 17th	20:20	6778	'472' 1 235 91 05834 29782 75990.....etc
Tuesday 18th	08:00	20258	'258' 1 482 121 31392 34512 53866 28515 86562.....68759
	08:40	15858	'258' 1 482 121 31392 34512 53866 28515 86562.....68759
Wednesday 19th	18:00	6982	'989' 000
Wednesday 19th	20:00	7478	'472' 000
Friday 21st	08:00	20258	'258' 1 251 53 96709 57836 09291 37146.....18313
	08:40	15858	'258' 1 251 53 96709 57836 09291 37146.....18313
Sunday 23rd	18:00	6982	'989' 1 553 70 97325 56040 43034 61334.....
Tuesday 25th	08:00	20258	'258' 000
Thursday 27th	21:50	4483	'744' 1 427 62 88215 01276 24258 85410.....etc
Friday 28th	08:00	20258	'258' 1 219 61 54187 70101 43911 99589.....88706

E07a December log:

Saturday 1st	09:00	11121	'124' 000
	09:20	12221	'124' 000
Wednesday 5th	21:00	5864	'815' 1 33633 101 53 51966 91365 84040.....96780
Saturday 15th	09:20	12221	'124' 000
Wednesday 19th	21:00	5864	'815' 1 66269 564 71 46573 14314 81099.....77787
Saturday 22nd	09:00	11121	'124' 000
Saturday 29th	09:00	11121	'124' 1 34744 768 43 85337 75643 32041 11697…..94177
	09:20	12221	'124' 1 34744 768 43 85337 75643 32041 11697…..94177
	09:40	13421	'124' 1 34744 768 43 85337 75643 32041 11697…..94177

Other's logs:

<u>November2012</u>

5449kHz2130z	01/11[744 000] Fair, VOLMETQRM2	(2m13s)	PLdn	THU
2130z	15/11[744 000] Fair, QRN2	(2m13s)	PLdn	THU
2130z	29/11[744 000] Weak and noisy	(2m13s)	PLdn	THU
5824kHz 2040z	26/11[798 1 124 49 62867 … 79052 000 000] Fair, QRM2, QRN2/3	(7m22s)	PLdn	MON
5938kHz1840z	25/11[199 1 962 95 73640 ... 88507 000 000] Very strong signal,QRM, QSB		FR	SUN
6777kHz2110z	01/11[744 000] Strong signal, weak noise		FR, PLdn, HJH	THU
2110z	29/11[744 000] Weak and noisy	(2m13s)	PLdn	THU
6924kHz2020z	05/11[798 000] Weak	(2m13s)	HJH, PLdn	MON
2020z	07/11[798 000] Fair	(2m13s)	PLdn	WED
2020z	12/11[798 000] Weak, QRM2	(2m13s)	ATC, HJH, PLdn	MON
2020z	19/11[798 000] Weak, Noisy	(2m13s)	PLdn	MON
2020z	26/11[798 1 124 49 62867 … 79052 000 000] Fair, QRM3, QRN2/3	(7m22s)	PLdn, ATC	MON
6982kHz1820z	04/11[199 000] Fair	(2m13s)	PLdn	SUN
1820z	07/11[199 000] Fair	(2m13s)	PLdn	WED
1820z	21/11[199 000] Weak, noisy	(2m13s)	PLdn	WED
1820z	25/11[199 1 962 95 73640 ... 88507 000 000] Very strong signal,QRM, QSB		FR	SUN
7724kHz2000z	05/11[798 000] Weak	(2m13s)	HJH, PLdn	MON
2000z	07/11[798 000] Fair	(2m13s)	PLdn	WED
2000z	12/11[798 000] Noisy, QRM3	(2m13s)	PLdn	MON
2000z	19/11[798 000] Fair. Noisy	(2m13s)	PLdn	MON

8183kHz1800z	04/11[199 000] Weak carrier, odd character QRM3	(2m13s)	FR, PLdn	SUN
1800z	07/11[199 000] Fair, BCQRM2	(2m13s)	PLdn	WED
1800z	18/11[199 000] Strong signal, weak noise, fading		FR	SUN
1800z	25/11[199 1 962 95 73640 ... 88507 000 000] Very strong signal,QRM, QSB		FR	SUN

199 1 962 95
73640 20295 41755 21780 49228 28087 53109 42111 70004 35532
84253 81959 32713 29855 20221 39792 18201 36162 52799 50536
79548 83335 36997 19087 30629 30548 09733 42417 38033 79361
71972 61590 63121 52128 14260 60423 47934 02302 58999 64171
53454 35392 10342 13358 44395 49524 45262 64476 34252 22572
62601 82968 67797 79658 61991 04774 61125 85159 45787 32854
05255 83601 50474 31578 26722 66132 12352 02589 63827 55245
63689 94203 59697 22328 11540 95587 64619 61273 27899 51920
45685 08604 60121 00873 16742 22601 87943 71545 32608 73038
15410 92500 92962 96465 88507 000 000 *Courtesy FR*

December 2012

5278kHz2040z	03/12[472 1 489 59 49357 … 93800 000 000] Fair, QRN2/3	(8m30s)	PLdn	MON
2040z	10/12[472 1 196 41 27191 … 94319 000 000] Poor and noisy	(6m44s)	ATC, PLdn	MON
2040z	17/11[472 1 245 91 05812.....33493] 2051z Very Weak QSB5		ATC	MON
5836kHz1820z	02/12[989 000] Weak, BC&HETQRM2	(2m13s)	PLdn	SUN
5449kHz2130z	06/12[744 000] Fair	(2m13s)	PLdn	THU
2130z	13/12[744 000] Strong. TTYQRM2	(2m13s)	PLdn	THU
2130z	20/12[744 000] Weak. XJTQRM2	(2m13s)	PLdn	THU
5836kHz1820z	02/12[989 000] Weak, BC&HETQRM2	(2m13s)	PLdn, ATC	SUN
6777kHz2110z	06/12[744 000] Strong	(2m13s)	PLdn	THU
2110z	13/12[744 000] Fair	(2m13s)	PLdn	THU
2110z	20/12[744 000] Fair, QRM2	(2m13s)	PLdn	THU
6778kHz2020z	03/12[472 1 489 59 49357 … 93800 000 000] Weak and noisy	(8m30s)	PLdn	MON
2020z	05/12[472 000] Fair	(2m13s)	PLdn	WED
2020z	10/12[472 1 196 41 27191 … 94319 000 000] Strong	(6m44s)	ATC, PLdn	MON

472 1 196 41
27191 52346 19413 49939 57065
15488 13849 03598 29437 3840?
203?7 ??288 14534 2?4?7 23331
?0518 37124 82287 515?4 8180?
89825 58542 82375 2?037 05257
1492? 66406 6198? 42377 89070
82592 12233 87?27 66?68 42860
42714 65904 666?0 ?5158 71000
94319 000 000 *Courtesy ATC*
Note: Fading was very bad, can't give 100% accuracy on groups

2000z	12/12[472 000] Weak, intermittent QRM3/4	(2m13s)	PLdn	WED
2010z	17/11 NRH		ATC	MON
6982kHz1800z	02/12[989 000] Weak	(2m13s)	PLdn, FR	SUN
1800z	12/12[989 000] Fair	(2m13s)	ATC, PLdn	WED
1800z	23/12[989 1 553 70 97325 ... 68138 000 000] 1810z Sigs poor, audio poor	(9m42s)	PLdn	SUN
7478kHz2000z	10/12 BCQRM5 [VoA]		PLdn, ATC	MON
2000z	17/11 - again, if it's there it's totally covered by VOA		ATC	MON
15858kHz0840z	18/12[258 1 482 121 31392 34512 53866 28515 86562.....68759 000 000]		RNGB	TUE
nnnnnkHz0820z	18/12 Not found			
20258kHz0800z	18/12[258 1 482 121 31392 34512 53866 28515 86562.....68759 000 000]		RNGB	TUE
0800z	25/12[258x3 000]		GD	TUE

E07a
November2012

4564kHz2140z	14/11[815 1 33633 101 53 51966 … 96870 000 000] Fair	(6m57s)	PLdn	WED
5146kHz0530z	01/11[188 1 38380 269 66 89639 ... 26319 000 000] Very strong Prev sent 13th Sept2012]	(8m03s)	PLdn	THU
0530z	08/11[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
0530z	15/11[188 1 33633 101 53 51966 … 96870 000 000] Very strong	(6m57s)	PLdn, Spectre	THU
0530z	22/11[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
0530z	29/11[188 000] Very strong	(2m13s)	PLdn, AnonUS	THU
5164kHz2020z	07/11[815 000] Very strong, QRM2	(2m13s)	PLdn, Spectre	WED
2120z	14/11[815 1 33633 101 53 51966 … 96870 000 000] Fair	(6m57s)	PLdn, Spectre	WED
2120z	21/11[815 000] Very strong	(2m13s)	PLdn, Spectre	WED
2120z	28/11 NRH		PLdn	WED

5846kHz0550z	01/11[188 1 38380 269 66 89639 ... 26319 000 000] Very strong	Prev sent 13th Sept2012]	(8m03s)	PLdn	THU
0550z	08/11[188 000] Very strong		(2m13s)	PLdn, Spectre	THU
0550z	15/11[188 1 33633 101 53 51966 … 96870 000 000] Very strong		(6m57s)	PLdn, Spectre	THU
0550z	22/11[188 000] Very strong		(2m13s)	PLdn, Spectre	THU
0550z	29/11[188 000] Very strong		(2m13s)	PLdn, AnonUS	THU
5864kHz2000z	07/11[815 000] Very strong		(2m13s)	PLdn, Spectre	WED
2100z	14/11[815 1 33633 101 53 51966 … 96870 000 000] Fair		(6m57s)	PLdn, Spectre	WED
2100z	21/11[815 000] Very strong, QRM2		(2m13s)	PLdn, Spectre	WED
2100z	28/11[815 000] Very weak, just audible			PLdn	WED
6846kHz0610z	01/11[188 1 38380 269 66 89639 ... 26319 000 000] Strong	Prev sent 13th Sept2012]	(8m03s)	PLdn	THU
0610z	15/11[188 1 33633 101 53 51966 … 96870 000 000] Very strong		(6m57s)	PLdn, Spectre	THU

E07a 5864/5164/4564kHz 2100/2120/2140z 14/11 Transcript:

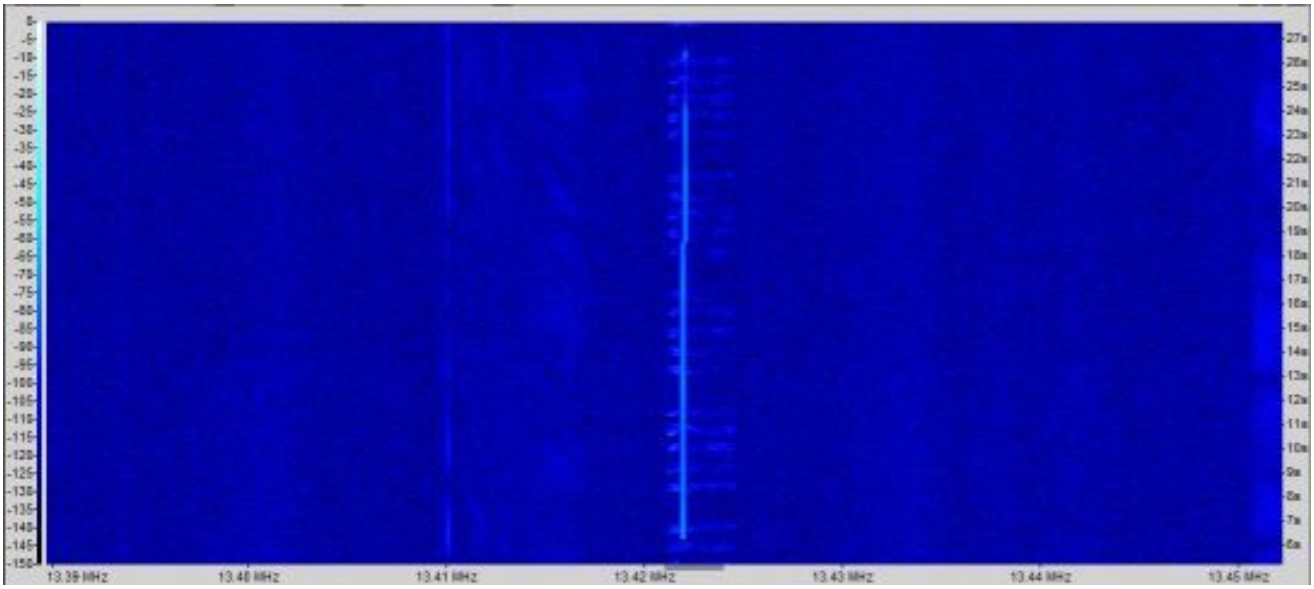
815 1 33633 101 53
51966 91365 84040 73069 45055 01771 79243 56940 00604 12545
55415 39086 56024 69899 28532 58181 29598 74885 98684 07810
45634 37505 29481 51973 75676 99142 61803 25574 98032 30269
90875 90903 82700 07949 59694 81799 91436 54246 60142 65299
15221 19232 62971 53964 71456 03975 84558 24494 84406 52083
93252 22581 96870
000 000 *Courtesy Spectre*

E07a 5146/5846/6846kHz 0530/0550/0610z 15/11 Transcript:

188 1 33633 101 53
51966 91365 84040 73069 45055 01771 79243 56940 00604 12545
55415 39086 56024 69899 28532 58181 29598 74885 98684 07810
45634 37505 29481 51973 75676 99142 61803 25574 98032 30269
90875 90903 82700 07949 59694 81799 91436 54246 60142 65299
15221 19232 62971 53964 71456 03975 84558 24494 84406 52083
93252 22581 96870
000 000 *Courtesy Spectre*

11553kHz0900z	17/11[515 000] Strong	(2m13s)	PLdn	SAT
0900z	24/11[515 000] Very strong	(2m13s)	PLdn	SAT
12153kHz0920z	10/11[515 515 515 0 0 0]0922z QSA4		JO	SAT
0920z	17/11[515 000] Strong	(2m13s)	PLdn	SAT
0920z	24/11[515 000] Very strong	(2m13s)	PLdn	SAT

December 2012



E07a 13421kHz 0940z 07/12 Heterodyne placed into sending for 21s

4564kHz2140z	05/12[815 1 33633 101 53 51966 … 96870 000 000] Very strong.	Msg prev hrd 14/11/2012	(6m57s)	ATC, Spectre	WED
2140z	19/12[815 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	Spectre	WED
2140z	26/12[815 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	WED
5146kHz0530z	06/12[188 1 33633 101 53 51966 … 96870 000 000] Very strong	Msg prev hrd 15/11/2012	(6m57s)	Spectre	THU
0530z	13/12[188 000] Very strong		(2m13s)	Spectre	THU
0530z	20/12[188 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	Spectre	THU
0530z	27/12[188 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	THU
5164kHz2120z	05/12[815 1 33633 101 53 51966 … 96870 000 000] Very strong.	Msg prev hrd 14/11/2012	(6m57s)	ATC, PLdn	WED

815 1 33633 101 53
51966 91365 84040 73069 45055 01771 79243 56940 00604 12545
55415 39086 56024 69899 28532 58181 29598 74885 98684 07810
45634 37505 29481 51973 75676 99142 61803 25574 98032 30269
90875 90903 82700 07949 59694 81799 91436 54246 60142 65299
15211 19232 62971 53964 71456 03975 84558 24494 84406 52083
93252 22581 96870 000 000
Note: repeat of November 14th
Courtesy *ATC Spectre*

2120z	12/12[815 000] Very strong		(2m13s)	Spectre	WED
2120z	19/12[815 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	Spectre	WED
2120z	26/12[815 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	WED
5846kHz0550z	06/12[188 1 33633 101 53 51966 … 96870 000 000] Very strong	Msg prev hrd 15/11/2012	(6m57s)	Spectre	THU
0550z	13/12[188 000] Very strong		(2m13s)	Spectre	THU
0550z	20/12[188 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	Spectre	THU
0550z	27/12[188 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	THU

E07a 5864/5164/4564kHz 2100/2120/2140z 19/12 Transcript:

815 1 66269 564 71
46573 14314 81099 62926 45382 78946 62168 78895 29662 61924
35042 36434 71404 10808 67147 30594 40744 17811 58424 37084
58309 94931 20127 71623 27666 81774 86875 77351 83838 75294
96792 60694 43112 66219 77011 33968 83464 65212 33114 87137
56283 49871 65102 73671 67985 36182 92503 13483 68661 14746
75371 28631 79874 83432 81527 50285 72045 07878 77161 30012
16457 24217 93186 81292 51617 05553 15289 65418 39298 18440
77787
000 000 *Courtesy Spectre*

E07a 5146/5846/6846kHz 0530/0550/610z 20/12 Transcript:

188 1 66269 564 71
46573 14314 81099 62926 45382 78946 62168 78895 29662 61924
35042 36434 71404 10808 67147 30594 40744 17811 58424 37084
58309 94931 20127 71623 27666 81774 86875 77351 83838 75294
96792 60694 43112 66219 77011 33968 83464 65212 33114 87137
56283 49871 65102 73671 67985 36182 92503 13483 68661 14746
75371 28631 79874 83432 81527 50285 72045 07878 77161 30012
16457 24217 93186 81292 51617 05553 15289 65418 39298 18440
77787
000 000 *Courtesy Spectre*

5864kHz2100z	05/12[815 1 33633 101 53 51966 … 96870 000 000] Very strong	Msg prev hrd 14/11/2012	(6m57s)	ATC, PLdn	WED
2100z	12/12[815 000] Very strong		(2m13s)	Spectre, HJH	WED
2100z	19/12[815 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	ATC, Spectre	WED

815 1 66269 564 71
46573 14314 81099 62926 45382
78946 62168 78895 29662 61924
35042 36434 71404 10808 67147
30594 40744 17811 58424 37084
58309 94931 20127 71623 27666
81774 86875 77351 83838 75294
96792 60694 43112 66219 77011
33968 83464 65212 33114 87137
56283 49871 65102 73671 67985
36182 92503 13483 68661 14746
75371 28631 79874 83432 81527
50285 72045 07878 77161 30012
16457 24217 93186 81292 51617
05553 15289 65418 39298 18440
77787 000 000 *Courtesy ATC*

2100z	26/12[815 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	WED
6846kHz0610z	06/12[188 1 33633 101 53 51966 … 96870 000 000] Very strong	Msg prev hrd 15/11/2012	(6m57s)	PLdn	THU
0610z	20/12[188 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	THU
0610z	27/12[188 1 66269 564 71 46573 … 77787 000 000] Very strong.		(8m25s)	PLdn	THU
11121kHz0900z	01/12[124 000] Strong		(2m12s)	PLdn, RNGB	SAT
0900z	08/12[124 1 14643 735 74 61114 ... 15655 000 000] Weak & noisy		(8m37s)	PLdn	SAT
0900z	15/12[124 000] Fair		(2m13s)	GD, PLdn	SAT
0900z	22/12[124 000] Fair		(2m13s)	PLdn	SAT
0900z	29/12[124 1 34744 768 43 85337 ... 94177 000 000] Very strong		(6m08s)	GD, PLdn	SAT
12221kHz0920z	01/12[124 000] Strong		(2m12s)	PLdn, RNGB	SAT
0920z	08/12[124 1 14643 735 74 61114 ... 15655 000 000] Fair		(8m37s)	PLdn	SAT
0920z	15/12[124 000] Fair		(2m13s)	PLdn	SAT
0920z	22/12[124 000] Strong		(2m13s)	PLdn	SAT
0920z	29/12[124 1 34744 768 43 85337 ... 94177 000 000] Very strong		(6m08s)	PLdn	SAT
13421kHz0940z	08/12[124 1 14643 735 74 61114 ... 15655 000 000] Fair. With 21s HETQRM3		(8m37s)	PLdn	SAT
0940z	29/12[124 1 34744 768 43 85337 ... 94177 000 000] Very strong		(6m08s)	PLdn	SAT

<u>E11[III]</u>

E11 log Nov/Dec:

4441kHz 1445z	10/11 [287/00] Fair	RNGB	SAT
0900z	22/11 [248/00]	GD	THU
1445z	28/11 [287/00] Fair	RNGB	WED
0900z	29/11 [248/00] Fair	RNGB	THU
0900z	06/12 [248/00] Fair	RNGB	THU
0900z	20/12 [248/00] Weak	RNGB	THU
0900z	22/12 [248/00]	RNGB	SAT
4536kHz 2000z	16/11 [576/00] Strong	RNGB	FRI

5082kHz	1730z	01/11 [416/00]	RNGB	THU
	0450z	12/11 [416/00] 0453z Fair	Tony	MON
	1730z	15/11 [416/00] Good	RNGB	THU
	0450z	19/11 [416/00] 0453z Fair	Tony	MON
	1730z	22/11 [416/00]	RNGB	THU
	0450z	26/11 [416/00] 0453z Fair	Hans	MON
	1730z	29/11 [416/00] Good	RNGB	THU
	1730z	06/12 [416/00] Strong	RNGB, Malc	THU
	1730z	27/12 [416/00] Strong	RNGB	THU
7317kHz	0820z	01/11 [438/00]	RNGB	THU
	0820z	05/11 [438/00]	RNGB	MON
	0820z	08/11 [438/00]	RNGB	THU
	0820z	19/11 [438/00] 0823z Very Strong	Tony	MON
	0820z	22/11 [438/00] 0823z Strong QRN3 QSB2	Spectre	THU
	0820z	26/11 [438/00]	RNGB	MON
	0820z	03/12 [438/00]	RNGB	MON
	0820z	17/12 [438/00]	RNGB	MON
	0820z	24/12 [438/00] Good	RNGB	MON
	0820z	27/12 [438/00]	RNGB	THU
7840kHz	0645z	01/11 [517/00]	RNGB	THU
	0645z	13/11 [517/00]	RNGB	TUE
	0645z	15/11 [517/00]	RNGB	THU
	0645z	20/11 [517/00] Fair	RNGB	TUE
	1045z	21/11 [469/00] 1048z Fair QRN2 QSB2	Spectre	WED
	0645z	27/11 [517/00] 0648z Very Weak	Tony	TUE
	0645z	04/12 [517/00]	RNGB	TUE
	0645z	20/12 [517/00]	RNGB	THU
8091kHz	1045z	07/11 [469/00] Out 1048z Fair	Tony	WED
	1045z	21/11 [469/00] 1048z Weak	Tony	WED
	1045z	27/11 [469/00] 1048z Weak	Tony	TUE
	1045z	28/11 [469/00] Good	RNGB	WED
	1045z	04/12 [469/00] Good	RNGB	TUE
	1045z	18/12 [469/00] Good	RNGB	TUE
	1045z	25/12 [469/00] Good	RNGB	TUE
	1045z	26/12 [469/00]	RNGB	WED
9446kHz	0830z	02/11 [649/00]	RNGB	FRI
	0900z	05/11 [534/00]	RNGB	MON
	0900z	07/11 [534/00] Out 0903z Fair	Tony	WED
	0900z	12/11 [534/00]	RNGB, Ary	MON
	0900z	14/11 [534/00] 0903z Fair QRN2 QSB2	Spectre	WED
	0830z	19/11 [649/00] Out 0833z Very Weak	Tony	MON
	0830z	23/11 [649/00]	RNGB	FRI
	0830z	26/11 [649/00]	RNGB	MON
	0900z	26/11 [534/00]	RNGB	MON
	0900z	28/11 [534/00]	RNGB	WED
	0830z	30/11 [649/00] Good	RNGB	FRI
	0830z	03/12 [649/00]	RNGB	MON
	0900z	05/12 [534/00]	RNGB	WED
	0900z	10/12 [534/00] Out 0903z S2	Malc	MON
	0830z	17/12 [649/00] Strong	RNGB	MON
	0900z	19/12 [534/00] Weak	RNGB, Tony	WED
	0830z	21/12 [649/00] Fair	RNGB	FRI
	0900z	24/12 [534/00]	RNGB, Malc	MON
	0900z	26/12 [534/00]	RNGB	WED
	0830z	28/12 [649/00] Good	RNGB	FRI
10800kHz	0710z	02/11 [633/00]	RNGB	FRI
	1045z	06/11 [576/00]	RNGB	TUE
	0710z	13/11 [633/00] Weak	RNGB	TUE
	1045z	13/11 [576/00] Good	RNGB	TUE
	0710z	16/11 [633/00] Fair	RNGB, Tony	FRI
	0710z	20/11 [633/00] Fair	RNGB	TUE
	0710z	23/11 [633/00]	RNGB	FRI
	0710z	30/11 [633/00] Good	RNGB	FRI
	1045z	04/12 [576/00] Strong	RNGB	TUE
	0710z	07/12 [633/00] Good	RNGB	FRI
	0710z	14/12 [633/00] 0713z Strong to Fair QSB3	Tony	FRI
	0710z	18/12 [633/00]	RNGB	TUE
	1045z	18/12 [576/00] Good	RNGB	TUE
	0710z	21/12 [633/00] Weak	RNGB	FRI
	1045z	25/12 [576/00] Good	RNGB	TUE
15632kHz	1155z	01/11 [718/00]	RNGB	THU
	1155z	15/11 [718/00] 1158z Fair QRN3 QSB3	Spectre	THU
	1155z	21/11 [718/00] Good	RNGB	WED
	1155z	22/11 [718/10] 1158z Fair QRN4 QSB2	Spectre	THU
	1540z	25/11 [228/00] Very Weak, faded out	Tony	SUN
	1155z	28/11 [718/00] Good	RNGB	WED

	1155z	05/12 [718/00] Good	RNGB	WED
	1540z	16/12 [228/00] Fair with QRM	RNGB	SUN
	1540z	17/12 [228/00] Weak	RNGB	MON
	1155z	19/12 [718/00] Good	RNGB	WED
	1155z	27/12 [718/00] Good	RNGB	THU
16112kHz	0745z	01/11 [335/00]	RNGB	THU
	0745z	06/11 [335/00]	RNGB	TUE
	0745z	08/11 [335/00]	RNGB	THU
	0745z	20/11 [335/00] Good	RNGB	TUE
	0745z	22/11 [335/00] Good	RNGB	THU
	0745z	27/11 [335/00] Good	RNGB	TUE
	0745z	18/12 [335/00]	RNGB	TUE
	0745z	25/12 [335/00] Very weak	RNGB	TUE

E11a log Nov/Dec:

4441kHz	0900z	01/12 [249/36 72186 76692 53140 52492 54621…..26870] Fair	RNGB	SAT
	0900z	27/12 [24?/31 94018 78101 07678 60341 43426…..23905] Weak	RNGB	THU
	0900z	29/12 [248/33 38349 59408 21784 11468…..15434] Very weak	RNGB	SAT
	1445z	29/12 [289/37 83659 06421 87298 13437 08585…..02251] Fair	RNGB	SAT
4536kHz	2000z	23/11 [576/36 00982 91637 95900…..41020] Repeat of Tues, Strong	RNGB	FRI
	2000z	21/12 [579/34 96098 97174 20924 71895 93765…..06619] Strong	RNGB	FRI
5082kHz	0450z	05/11 [410/35 79506 54256 40808.....31778] 0500z Weak QRM5	Tony	MON
	1730z	08/11 [410/35 79506 etc] repeat of Monday	Malc	THU
6923kHz	1710z	02/11 [953/21 53204 77833 74662 25448 15501…..87378]	RNGB	FRI
	1710z	05/11 [955/20 21799 55829 21283 91904 33106…..58722] Good	RNGB	MON
	1710z	09/11 [957/21 86927 39747 17105 17312 71518…..98558] Good	RNGB	FRI
	1710z	12/11 [959/26 02275 02456 86765 38503 63800…..63278] Strong, Out 1718z	RNGB	MON
	1710z	16/11 [957/28 47686 11725 23754 32581 36952…..79807] Strong	RNGB, Tony	FRI
	1710z	19/11 [951/30 38606 60207 53777 72801 22237…..57215] Strong	RNGB	MON
	1710z	23/11 [955/20 67696 47910 60753 20027 97425…..26000]	RNGB	FRI
	1710z	26/11 [957/30 A 22418 33597 .... 97591] 1719z Strong	Hans	MON
	1710z	30/11 [957/21 27900 58852 25503 71892 59629…..96035] Good	RNGB	FRI
	1710z	03/12 [951/21 71690 08907 02655 04123 19481…..04449] Strong	RNGB	MON
	1710z	07/12 [957/24 20361 40077 42907 69627 19867…..84703]	Elmar, Tony	FRI
	1710z	10/12 [953/20 90312 27948…..78131] Out 1717z S9+10db	Malc	MON
	1710z	14/12 [957/21 90624 73682 25606 58444 94383.....85898] 1717z Strong	Tony, Malc	FRI
	1710z	17/12 [957/27 81430 03771 67695 01075 64615…..47976] Good	RNGB	MON
	1710z	21/12 [957/21 25633 18418 36556 20892 17007…..86615] Good	RNGB, Tony	FRI
	1710z	24/12 [953/25 50192 86427 06180 63745 83601…..75440] Out 1718z Strong	RNGB	MON
	1710z	28/12 [953/21 59066 68090 32247 10358.....85748] Out 1717z Strong QSB3	Tony	FRI
7317kHz	0820z	12/11 [431/37 14594 86265 25124 03672 09155…..34112] Good	RNGB, Tony	MON
	0820z	15/11 [431/37 Attention 14594 ... 34112 Out] 0830z Fair QRN3 QSB2	Spectre	THU
	0820z	20/12 [430/35 16460 26821 60975 15429 69088…..46543] Good	RNGB	THU
7840kHz	0645z	18/12 [517/35 24281 32478 73879 57444 36525…..49175] Fair	RNGB, Tony	TUE
8091kHz	1045z	13/11 [465/31 43231 91967 71254 20388 07700…..69849] Good	RNGB	TUE
	1045z	14/11 [465/31...!ATTENTION" 43231 etc] repeat of Tuesday	Malc	WED
	1045z	11/12 [465/36 31195 07597 78590 11046 78173....09389] 1055z Fair	Tony	TUE
9446kHz	0830z	05/11 [647/31 83236 68252 42958 15162 81527…..34758]	RNGB	MON
	0830z	12/11 [641/34 27436 59855 35041 38504 76151…..36253] Good	RNGB, Ary	MON
	0900z	19/11 [537/33 56402 22474 84063 74054 78264…..52156]	RNGB	MON
	0900z	21/11 [537/33 56402 etc] repeat of Monday. Continuous carrier observed	RNGB	WED
	0830z	07/12 [641/32 98967 06182 96110 15561 45312…..20606] Good	RNGB	FRI
	0900z	17/12 [534/34 35176 43088 38976 40201 57798…..73755]	RNGB	MON
	0830z	24/12 [649/30 01279 30228 47480 40173 77251…..58789] Out 0839, Strong	RNGB	MON
10213kHz	1810z	13/11 [983/10 29537 44570 74335 79691 36776…..21133]	Marco, Spectre	TUE
	1810z	17/11 [985/10 00525?] Too weak to copy	RNGB	SAT
	1810z	27/11 [982/10…..] Too weak to copy	RNGB	TUE
	1810z	04/12 [985/10 69245 22735 49414 34056 36610…..82269] Good, QSB	RNGB	TUE
	1810z	25/12 [983/10 46635 48013 14050 56689 53174…..23486] Good	RNGB	TUE
	1810z	29/12 [987/10 56318 48473 82562 71167 80720…..81679] Weak	RNGB	SAT
10690kHz	1400z	03/11 [988/10 43410 62593 10844 32477 62335…..88298] Out 1405z	Malc	SUN
	1400z	10/11 [987/10 61020 20989 02856 05193 63942…..14785]	RNGB	SAT
	1400z	13/11 [982/10 72367 86934 00739 70556 57855…..48157] Good	RNGB, Spectre	TUE
	1400z	17/11 [987/10 42724 15325 08647 79345 74625…..42340]	RNGB	SAT
	1400z	20/11 [981/10 50147 39717 47018 83561 48246…..91668]	RNGB, Tony	TUE
	1400z	24/11 [987/10 42724 15325 08647 79345 74625…..42340]	RNGB	SAT
	1400z	27/11 [981/10 86062 15128 06650 18565 45797…..88695]	RNGB	TUE
	1400z	15/12 [987/10 66714 17158 45233 06015 48704…..84026] S9+10db	Malc	SAT
	1400z	18/12 [987/10 70737 63736 71268 19493 44761…..18763] Good	RNGB, Tony	TUE
	1400z	25/12 [982/10 09731 99901 59342 69110 22964…..10181] Strong	RNGB, GD	TUE
	1400z	29/12 [985/10 08924 86683 78985 27033 12442…..77310] Strong	RNGB	SAT

10800kHz	0710z	06/11 [636/36 31537 00659 46843 74979 81994…..19722]	RNGB	TUE
	0710z	09/11 [636/36 31537.....19722] Strong to Very Weak QRN4 QSB4	Tony	FRI
	1045z	20/11 [576/36 00982 91637 95900 90596 54202…..41020] Good	RNGB	TUE
	0710z	04/12 [634/34 94788 79616 06524 56077 48012…..38874] Fair	RNGB	TUE
	0710z	28/12 [639/33 57353 04831 87801 43705 73422…..94830] Weak	RNGB	FRI
14410kHz	1110z	02/11 [952/31 96513 11863 14096 36007 48536…..41929] Good	RNGB	FRI
	1110z	05/11 [954/31 60666 74699 80056 18249 34509…..	RNGB	MON
	1110z	09/11 [956/34 89295 36146 06429 45361 87547…..39109] Fair	RNGB	FRI
	1110z	12/11 [954/38 68755 64966 50441 54900 83108…..38845] Good	RNGB, Marco	MON
	1110z	16/11 [952/36 10288 72227 08220 78507 95327…..50550] Good	RNGB	FRI
	1110z	19/11 [950/40 06523 21170 89780 76288 52112…..66282] Good, Out 1121z	RNGB	MON
	1110z	23/11 [954/31 64802 45243 28477 81692 59878…..18993]	RNGB	FRI
	1110z	26/11 [958/40 63770 91802 48659 97036 84057…..74816]	RNGB	MON
	1110z	30/10 [958/31 44583 52009 37511 21511 04853…..59060] Out 1118z	Malc	FRI
	1110z	03/12 [952/31 15872 30784 35338 06938 68495…..90944]	RNGB	MON
	1110z	21/12 [958/31 57072 00623 52014 29255 02986…..98559] Good	RNGB	FRI
	1110z	24/12 [952/36 34638 64145 78954 30576 17994…..28365] QRM & QSB	RNGB, Malc	MON
	1110z	28/12 [952/31 89138 82006 49282 82661 41129…..76347] Fair, QSB	RNGB	FRI
15632kHz	1155z	07/11 [710/30 A 93405 37037 .... 17520] Out 1204z Fair QSB2	Hans	WED
	1155z	08/11 [710/30 Attention 93405 ... 17520 Out] 1204z Weak QRN3 QSB3	Spectre	THU
	1540z	11/11 [227/38 95104 49633 55178 18732 59843…..21721] 1st group?	RNGB	SUN
	1155z	06/12 [711/32 "ATTENTION" 93640.....74378"OUT"]1204z S2	Malc	THU
	1155z	20/12 [716/30 10753 83894 78248 88156 97534…..08452] Strong	RNGB	THU
16112kHz	0745z	13/11 [337/36 36741 40539 15803 88225 87109…..44441] Good	RNGB, Spectre	TUE
	0745z	20/12 [333/32 28425 40589 02258 66422 33532…..90801] Weak	RNGB	THU

E11c log Nov/Dec:

4909kHz	2000z	13/11 [757/0100/00] Strong	RNGB	TUE
	2000z	20/11 [757/0010/00] Strong	RNGB, Tony	TUE
	2000z	27/11 [757/2200/00] Strong	RNGB	TUE
	2000z	04/12 [757/0000/00] Strong	RNGB, Fritz	TUE
	2000z	11/12 [757/0000/00] 2003z Strong	Tony	TUE
	2000z	18/12 [757/0010/00] 2003z Fair	Tony	TUE
	2000z	25/12 [757/0000/00] Strong	RNGB	TUE
6923kHz	1925z	08/11 [758/0000/00] Good	RNGB	THU
	1925z	13/11 [758/0000/00] Good	RNGB, Marco	TUE
	1925z	15/11 [758/0000/00] Weak	RNGB	THU
	0700z	20/11 [758/0000/00]	Chris S	TUE
	1925z	20/11 [758/2000/00] Good	RNGB	TUE
	0700z	27/11 [758/1000/00] Good	RNGB	TUE
	1925z	29/11 [758/0000/00] Weak	RNGB	THU
	0700z	04/12 [758/0000/00] Good	RNGB	TUE
	1925z	04/12 [758/0000/00] Good	RNGB	TUE
	1925z	06/12 [758/0000/00] Strong	RNGB	THU
	0700z	18/12 [758/1000/00] Strong	RNGB	TUE
	1925z	20/12 [758/0000/00] Good	RNGB, Fritz	THU
	0700z	25/12 [758/0000/00] Strong	RNGB	TUE
	1925z	25/12 [758/2000/00] Good	RNGB, GD	TUE
	1925z	27/12 [758/0000/00] Good	RNGB	THU

E17z
November2012

9820kHz	0810z	08/11[674 210 5 65321 76885 98911 45488 23399 210 5 0 0 0 0 0]0805 QSA3	JO	THU
	0810z	15/11[674 203 5 88620 58069 61732 74537 57440 203 5 00000(s)] 0815z Weak QRN3 QSB3	Spectre	THU
	0810z	22/11[674 203 5 88620 58069 61732 74537 57440 203 5 00000(s)] 0815z Weak QRN3 QSB3	Spectre	THU
11170kHz	0800z	01/11[674 210 5 65321 76885 98911 45488 23399]	GD	THU
	0800z	08/11[674 210 5 65321 76885 98911 45488 23399 210 5 0 0 0 0 0]0805z QSA3	JO	THU
	0800z	15/11[674 203 5 88620 58069 61732 74537 57440 203 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre	THU
	0800z	22/11[674 203 5 88620 58069 61732 74537 57440 203 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre	THU
	0800z	29/11[674/??] Very Weak, QSB5	ATC	THU

December 2012

9820kHz	0810z	06/12[674 298 5 18276 35667 09816 78193 95123 298 5 00000(s)] 0815z Weak QRN3 QSB3	Spectre	THU
	0810z	13/12[674 298 5 18276 35667 09816 78193 95123 298 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre	THU
	0810z	20/12[674 208 5 53754 42788 64580 61284 16159 208 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre, JO	THU
	0810z	27/12[674 208 5 53754 42788 64580 61284 16159 208 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre	THU
11170kHz	0800z	06/12[674 298 5 18276 35667 09816 78193 95123 298 5 00000(s)] 0805z Weak QRN3 QSB3	Spectre	THU
	0800z	13/12[674 298 5 18276 35667 09816 78193 95123 298 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre	THU
	0800z	20/12[674 208 5 53754 42788 64580 61284 16159 208 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre, JO	THU
	0800z	27/12[674 208 5 53754 42788 64580 61284 16159 208 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre, GD	THU

E25

November2012

6140kHz1046z	14/11[128 1069 2101 2150 2613 6514 0162 7951 4766 8296 2150]1051z AM, tone, YL pauses, QSA4 QSB2	MG	WED
6140kHz 0946z	18/11[350 1099 1110 2190 3925 5024 1621 3308 0135 1110]0953z AM, tone, IO, some problems during call, QSA5 QSB2	MG	SUN
6140kHz0830z	20/11[701 (as of 19/11)]0835z AM, tone and call, QSA5	MG	TUE
6140kHz 0845z	21/11[169 6249 3180 1793 9271 7902 8775 8126]0850z AM, tone, Rx3 62... QRT QSA5	MG	WED
6140kHz 0917z	26/11[950 1041 6211 1530 6029 4004 7584 5020 8624 1361 3713 9346 8457 9645 1530] 0922z AM, tone, EOM only, QSA5, QSB2	MG	MON
9450kHz1220z	23/11[Mx then 835(R15) Msg Msg Msg odd characters only: 10 0 3 0 2 222 88 18 2 1 240 3125 Rbt Rbt Rbt 80 40] Signal lost in noise	PLdn	FRI
9450kHz1215z	26/11 Tone, Mx Odd characters heard Weak and noisy ended 1223z	PLdn	MON
9450kHz1313z	26/11 Odd characters heard ‘156’ Weak and noisy ended 1319z	PLdn	MON

December 2012

6140kHz08??z	04/12[...15 127 15 127 15 127 15...] OM WEAK 0828z	AIK	TUE
6140kHz0831z	16/12 /ARABIC MUSIC. NO MSG. USUAL XMTR NOISES. FAIR -0837z	AIK	SUN
6140kHz0911z	16/12 ///XMTR ON. - - -z	AIK, MP	SUN

6140kHz 0831z 16/12 YL
950 950 950 950 950 950 950 950 950 950 950 950 950 950 950
MESSAGE MESSAGE MESSAGE
1041 1505
5240
9718 6152 9509 1256 2482 9915 8137 0697 6789 2415
5240
REBEAT REBEAT REBEAT
1041 1505
5240
9718 6152 9509 1256 2482 9915 8137 0697 6789 2415
5240
FAIR EOM/EOT 0837z AIK SUN ///TONE INTRO.

6140kHz -z 16/12 ///XMTR OFF. - -0939z	AIK, MP	SUN
6140kHz 0825z 22/12 ///XMTR ON, MAIN XMSN STARTS about 1' later... - - -z	AIK SAT	
6140kHz 0826z 22/12 ///ARABIC MUSIC ONLY – MUSLIM PRAYER STYLE. XMTR OFF SHORTLY AFTER MUSIC. WEAK - 0832z	AIK	SAT
6140kHz 0903z 22/12 ///XMTR ON - ARABIC MUSIC ONLY – MUSLIM PRAYER STYLE. XMTR OFF. WEAK - 0906z	AIK	SAT
6140kHz - 29/12 ///ARABIC MUSIC ONLY – MUSLIM PRAYER STYLE. XMTR OFF. VERY WEAK - 0803z	AIK	SAT

E25a
November2012

6140kHz1028z	21/11[675 5]1034z AM, WinXP "dings", tone, QSA5	MG	WED

G06

RNGB’s November/December logs:

G06 November log:

Monday 5th	08:00	5463	‘215’ 00000
	17:00	3754	‘154’ 00000
	18:00	4467	‘154’ 00000
Friday 9th	19:30	4792	‘436’ 703 15 34719 37163 14597 14872 48204.....09823
Monday 12th	08:00	5463	‘215’ 00000
	18:00	4467	‘154’ 00000
Monday 19th	08:00	5463	‘215’ 00000
Friday 23rd	19:30	4792	‘436’ 703 15 34719 37163 14597 14872 48204.....09823
Monday 26th	08:00	5463	‘215’ 00000

G06 December log:

Monday 3rd	08:00	5463	‘215’ 00000
	18:00	4467	‘154’ 00000
Monday 17th	08:00	5463	‘215’ 00000
Monday 24th	08:00	5463	‘215’ 00000
Thursday 27th	18:30	4519	‘271’ 199 15 83015 73922 53729 01635 72986.....10375

Now onto other's logs:

November2012

3754kHz1700z	05/11[154x3 000000 ends]1704z S2	M8, ATC	MON
1700z	12/11[154 00000]	Elmar, ATC	MON
4467kHz1800z	05/11[154x3 000000 ends]1804z S1	M8, ATC	MON
1800z	12/11[154 00000]1804z QRM2 S9+10	MP, M8, ATC	MON
4792kHz1930z	09/11[436 703 15 34719 ... 09823 703 15 00000]	AB, HJH, Spectre	FRI

436 703 15
34719 37163 14597 14872 48204
37137 05739 32245 12345 38173
37498 37590 15824 52876 09823
703 15 00000 *Courtesy AB Spectre*

1830z	22/11[271.....]	HJH	THU

December2012

3754kHz1700z	10/12[154R3x 00000] 1703z Strong QRM4 (Amateurs)	ATC, M8	MON
4467kHz1800z	10/12[154 00000] Fair	HJH, ATC	MON
4519kHz1831z	27/12[271 199 15 83215... 12375 199 15 00000] Weak	ATC	THU

271 199 15
83215 73922 53729 21535 72986
12385 28395 12582 89365 94732
12284 27193 46284 29482 12375
199 15 00000 *Courtesy ATC*

4792kHz1930z	14/12[436 841 15 73629 ... 28915 841 15 00000]	HJH	FRI

436 841 15
73629 17255 92183 27398 17392
78263 17328 17367 72932 27396
22832 17362 96473 28635 28915
841 15 00000(s) *Courtesy HJH/ ATC*

1930z	28/12 [436 841 15 73629.....28915] 1938z Fair	ATC	FRI

PoSW's G06 logs:

Second + Fourth Thursdays in the Month 1830 UTC Schedule:-
8-Nov-12, 4,519 kHz:- appeared to be a false start, heard "271....386....386" in German on the half hour, started the call-up approx 35 seconds later, DK/GC "386 386 15 15".
The expected seasonal change of frequency from 5,934 kHz, plus or minus, used in September and October.

22-Nov-12, 4,519 kHz, "271" and "386 386 15 15" again.

13-Dec-12, 4,519 kHz, call "271", DK/GC "199 199 15 15". Good signal but the swept carrier passing through about once a second which lives down here very strong this evening.

Friday Following the Second + Fourth Thursdays 1930 UTC Schedule:-
23-Nov-12:- 4,792 kHz, calling "436", DK/GC "703 703 15 15". Frequency changed from 5,442 kHz used for the past couple of months.

14-Dec-12:- 4,792 kHz, call "436", DK/GC "841 841 15 15". A pause of about 20 seconds between the decode key and the group count. S9 signal on a clear frequency.

First + Second Mondays in the Month 1700 + 1800 UTC Schedule:-
5-Nov-12:- 1800 UTC, 4,467 kHz, not found until after 1803 UTC, "154 154 154 00000",
last few seconds. In common with the other G06 schedules above stays on UTC with the
shift in the clocks for the end of summertime so now on one hour earlier local time; the 1700z would be at 5 pm in the UK when those of us still in gainful employment are not likely to be in!

12-Nov-12:- 1800 UTC, 6 pm and all is well, 4,467 kHz, "154 154 154 00000", S9 signal

3-Dec-12:- 1800 UTC, 4,467 kHz, "154 154 154 00000". S9 to S9+, same frequency as in November. Started approx. 30 seconds before the hour.

10-Dec-12:- 1800 UTC, started 25 seconds *late*, 4,467 kHz, "154 154 154 00000".

G11 log Nov/Dec:

4441kHz	2000z	02/11 [261/38 70709 48343 20006 41398 21929…..39622]	RNGB	FRI
	2000z	04/11 [261/38 70779 etc] Repeat of Friday	RNGB, PLondon	SUN
	2000z	09/11 [262/00]	RNGB	FRI
	2000z	11/11 [262/00] Strong	RNGB	SUN
	2000z	16/11 [262/00] Strong	RNGB	FRI
	2000z	23/11 [262/00]	RNGB	FRI
	2000z	25/11 [262/00]	RNGB	SUN
	2000z	02/12 [262/00]	Gary	SUN
	2000z	07/12 [260/37 13005 83260 82691 65876 88660.....46382] 2011z Very Strong	Tony	FRI
	2000z	09/12 [262/00] 2003z Very Strong	Tony	SUN
	2000z	14/12 [262/00] 2003z Strong	Tony	FRI
	2000z	16/12 [260/38 14817 98390 90952 38289 79952…..02100] Ende 2011z	RNGB	SUN
	2000z	21/12 [262/00] Good	RNGB, Gary	FRI
	2000z	23/12 [262/00]	RNGB	SUN
	2000z	28/12 [262/00] 2003z Strong	Tony	FRI
6433kHz	1755z	04/11 [270/00]	RNGB, Tony	SUN
	1325z	10/11 [299/00] Fair	RNGB	SAT
	1755z	11/11 [273/38 23618 60621 06723 80879.....47481] 1806z Very Strong	Spectre, Tony	SUN
	1755z	13/11 [270/00] Strong	RNGB	TUE
	1325z	16/11 [299/00] Good	RNGB	FRI
	1325z	17/11 [299/00] Good	RNGB	SAT
	1755z	20/11 [270/00] Strong	RNGB	TUE
	1755z	02/12 [271/30 55125 83858 36085 51686 47895…..94259]	Fox	SUN
	1755z	04/12 [270/00] Strong	RNGB	TUE
	1325z	07/12 [299/00] Good	RNGB	FRI
	1755z	09/12 [270/00] 1758z Very Strong	Tony	SAT
	1755z	11/12 [279/34 28782 34086 92721 61120.....76468] Ende 1805z Very strong	Tony	TUE
	1755z	16/12 [270/00] Good	RNGB	SUN
	1755z	18/12 [270/00] 1758z Very Strong	Tony	TUE
	1325z	21/12 [299/00] 1330z Very Weak	Tony	FRI
	1755z	23/12 [272/33 34260 42527 94767 76491 52957…..27687] Strong	RNGB	SUN
	1325z	28/12 [299/00] Fair	RNGB	FRI
	1325z	29/12 [299/00] Fair	RNGB	SAT

S06

We start with PoSW's logs covering both Novemeber and December, then move onto RNGB's findings and then other's log detail.

Saturday 1600 or 1605 UTC Weekly Schedule:-
I lost track of the long standing S06 1600 or 1605z call "134" schedule in November, predicted to show up on either 7,728 or 6,788 used in the last two months of last year and in Jan and Feb of this year, but nothing heard. However, a new schedule at this time found in late November:-
24-Nov-12:- 1605 UTC, 5,932 kHz, S06 Russian OM inside the 49 metre band calling "937" for a full message. Suspicious heterodyne noted just after 1600z, turned out to be S06 carrier beating with BC station on 5,930. DK/GC "842 842 37 37". Good signal throughout, heterodyne removed by using receiver in USB mode. Ended before 1617z with the usual DKDK GCGC and "00000".

No sign of this one on the next occasion I was near a radio at 1600 UTC on a Saturday,
8-December-12, not heard at 1605 on 5,932 and no pre-transmission warm-up activity observed, so presumably was on at 1600 on a higher frequency although a search proved fruitless. Showed up again two weeks later:-
22-Dec-12:- 1605 UTC, 5,932 kHz, "937 937 937 00000". Strength S7, close to broadcast station inside 49 metre band. Carrier noted around 1545z, audio tone 1550z and single "937" in Russian 1552z.

Wednesday Repeat of Saturday 1600 / 1605 UTC "Full Message":-
A vague recollection that if there is a full message on the above Saturday transmission then there is a repeat on a Wednesday evening, UK time, prompted a search which found the following:-
28-Nov-12:- 2005 UTC, 3,177 kHz, calling "937", DK/GC "842 842 37 37". Weak signal, local QRM a problem. Those 5F groups which could be copied were the same as heard on
Saturday 24-Nov at 1605 UTC. 3,177 the winner so far in the "lowest frequency for a number station so far this winter" contest!

Saturday 1930 or 1935 UTC Weekly Schedule:-
3-Nov-12:- 1930 UTC, 3,212 kHz, "843 843 843 00000", weak, clear signal - once the TV,
cordless phone and various other electronic smog – producing gadgets with switch mode power units and / or digital circuitry unplugged from the mains to quieten things down a little. Heard on this frequency in January and February of this year. 1935 UTC sending should be on 3,842. Stays on UTC so now on at either 7.30 or 7.35 pm UK time now that the clocks have changed with the end of summertime.

10-Nov-12:- 1935 UTC - alternative start time, not on the expected frequency of 3,842 kHz - found on 4,013 kHz. "843 843 843 00000". S9 signal, found approx two minutes into the transmission after hearing nothing on 3,842.

17-Nov-12:- 1930 UTC, 3,212 kHz, "843 843 843 00000". Signal strength S5 to S7.

1-Dec-12:- 1930 UTC, 3,212 kHz, "843 843 843 00000". S9 with QSB.

8-Dec-12:- 1935 UTC, 4,014 kHz, "843 843 843 00000". One kHz difference in frequency from the last time I heard this one at 1935z on 10-November, or perhaps I didn't have the tuning quite correct!

15-Dec-12:- 1930 UTC, 3,212 kHz, "843 843 843 00000". S7 to S8. Carrier with tone on 3,212 at 1919z, single Russian "843" shortly after.

First + Third Saturdays in the Month 2000 + 2100 UTC Schedule:-
3-Nov-12:- 2000 UTC, 4,489 kHz, “416 416 416 00000”, signal strength S7. Heard on this frequency in January and February of this year.
2100 UTC, 3,626 kHz, second sending, also as in the first two months of this year.

17-Nov-12:- 2000 UTC, 4,489 kHz and 2100 UTC, 3,626 kHz, both peaking S9+, “416 416 416 00000”.

1-Dec-12:- 2000 UTC, 4,489 kHz, “416 416 416 00000”. S9+, very strong signal. Carrier with tone up on 4,489 at 1945z, single spoken Russian “416” 1948z.
2100 UTC, 3,626 kHz, second sending, S9, inside 80 metre amateur band, plenty of SSB activity, strong “PA0” on close frequency.

15-Dec-12:- 2000 UTC, 4,489 kHz, “416 416 416 00000”, peaking S9.
2100 UTC, 3,626 kHz, second sending, also up to S9.

First + Third Saturdays in the Month 2030 + 2130 UTC Schedule:-
3-Nov-12:- 2030 UTC, 5,118 kHz, “314 314 314 00000”, S9 signal.
2130 UTC, 4,452 kHz, second sending, S9+. As with the “416” schedule above, these frequencies used in January and February of this year.

17-Nov-12:- 2030 UTC, 5,118 kHz, “314 314 314 00000”, S9+, very strong signal. I lost track of the time and missed the 2130z sending!

1-Dec-12:- 2030 UTC, 5,118 kHz, “314 314 314 00000”, S9.
2130 UTC, 4,452 kHz, second sending, S9 to S9+, strong FSK station on HF side.

15-Dec-12:- 2030 UTC, 5,118 kHz, “314 314 314 0000”, somewhat weaker than usual, S5 to S7.
2130 UTC, 4,452 kHz, second sending, S9+ here, very strong signal.

Monday + Thursday 1900 or 1905 UTC Schedule:-
1-Nov-12, Thursday:- 1905 UTC, 3,838 kHz, “349 349 349 00000”, S9+ signal. Seasonal change of frequency, 1900z transmission should be on 3,192.

5-Nov-12, Monday:- 1905 UTC, 3,838 kHz, “349 349 349 00000”.

8-Nov-12, Thursday:- 1900 UTC, 3,192 kHz, “on the hour” start up on the expected frequency, “349 349 349 00000”.

12-Nov-12, Monday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”, S8 with deep QSB.

15-Nov-12, Thursday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”.

19-Nov-12, Monday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”, up to strength S9.

22-Nov-12, Thursday:- 1905 UTC, 3,838 kHz, “349 349 349 00000”, S7 with deep QSB.

26-Nov-12, Monday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”, peaking S9.

29-Nov-12, Thursday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”, S6 to S7.

3-Dec-12, Monday:- 1905 UTC, 3,838 kHz, “349 349 349 00000”, S9+, very strong.

6-Dec-12, Thursday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”,S7 to S8.

13-Dec-12, Thursday:- 1905 UTC, 3,838 kHz, “349 349 349 00000”, S9 signal.

17-Dec-12, Monday:- 1900 UTC, 3,192 kHz, “349 349 349 00000”, S8.

24-Dec-12, Monday:- 1900 UTC, and a slight change in the frequency this evening – 3,202 kHz, 10 up on the usual; first time ever, I think! Still “349 349 349 00000”, so no change
there!

27-Dec-12, Thursday:- 1900 UTC, back to 3,192 kHz, “349 349 349 00000”. Signal strength peaking S9.

Second + Fourth Mondays in the Month 1915 + 2015 UTC Schedule:-
12-Nov-12:- 2015 UTC, 6,830 kHz, “805 805 805 00000”, signal strength S5 to S6. 8.15 pm
in the UK. In the summer months this schedule ran at 7.15 and 8.15 pm UK time so presumably has shifted by one hour so as to appear at the same local time in the winter, so this must be the second sending although a search an hour earlier found nothing.

26-Nov-12:- 1915 UTC, 8,180 kHz, so the first sending then. Actually not found until 1918 UTC with less than a minute to go. Very weak signal, only just readable, “805 805 805 00000”.
2015 UTC, 6,830 kHz, second sending, much stronger, S6 to S7.

10-Dec-12:- unable to find a sending at 1915 UTC on this second Monday in December, but the 2015 UTC found although only just, only a few seconds before the end of transmission:-
2018 and 45 seconds UTC, 5,140 kHz, “418 418 418 00000”, on a lower frequency than I thought likely. First sending at 1915z presumably somewhere between 6.5 and 7 MHz.

24-Dec-12:- 2015 UTC, 5,140 kHz, “418 418 418 00000”. Strength S7 to S8, still unable to find a transmission at 1915 UTC despite a determined search.

S06s Russian YL:-
Some time off over the extended Christmas and New Year holiday gave me a chance to check out a few of the S06s YL schedules which are transmitted during what is normally
the working day for those of us still in full time employment:-

25-Dec-12, Tuesday:- 0805 UTC, 10,265 kHz, last few seconds of "Young Olga" found while having a quick tune around on Christmas day in the morning; I was actually doing a search to see if the apparently defunct V02a Spanish number station was on some other frequency. In the process of finishing with, "61135 817 817 6 6 00000". The E2K Newsletter suggests 9,135 kHz for the second sending:-
0810 UTC, 9,135 kHz, calling "352", DK/GC "817 817 6 6", followed by 5F groups, "24035 84090 09531 88430 33240 61135."

More S06s schedules from E2K 73:-
26-Dec-12, Wednesday:- 0840 UTC, 9,260 kHz, calling "328", DK/GC "471 471 5 5", 5F groups, "43828 55581 20044 52985 53928".
0850 UTC, 11,415 kHz, second sending of "328".

1000 UTC, 12,365 kHz, call "729", DK/GC "416 416 5 5". 5Fs "96633 52537 53317 06675 41736".
1010 UTC, 14,280 kHz, second sending, started approx 25 seconds late, wide variations in signal strength, S3 to S7, inside 20 metre amateur band.

27-Dec-12, Thursday:- 0900 UTC, 12,952 kHz, call "167", DK/GC "298 298 5 5", 5Fs "34929 75293 57457 66476 54374". S9 signal.
0910 UTC, 13,565 kHz, second sending, S9+, very strong signal.

1200 UTC, 12,155 kHz, call "425", DK/GC "837 837 6 6". 5Fs "24035 47115 24151 51802 23807 84116". Signal strength S6 to S7. Carrier with tone was up at 1146z, Russian "425"
spoken twice in Young Olga voice after 1152z.
1210 UTC, 10,920 kHz, second sending, slightly weaker than the 1200z transmission.

The S06s schedule in E2K Newsletter 73 suggests a Thursday schedule at 1400z, 5,320 / 5,410 and 1410z, 4,845 / 6,770 but nothing heard.

28-Dec-12, Friday:- 0930 UTC, 11,780 kHz, another S06s from the E2k 73 list, call "516", DK/GC "809 809 7 7". 5F groups "40550 90140 86714 52070 63858 10682 82482". Signal strength S5 to S7. Inside 25 metre band, over-riding a weak broadcast station.
0940 UTC, 12,570 kHz, second sending, much stronger signal peaking S9+.

S06

RNGB's S06 log November/December 2012:

Thursday 1st	19:05	3838	'349' 00000
Saturday 3rd	19:30	3212	'843''00000
Saturday	20:00	4489	'416' 00000
Saturday	20:30	5118	'314' 00000
Saturday	21:00	3626	'416' 00000
Saturday	21:30	4452	'314' 00000
Monday 5th	19:05	3838	'349' 00000
Friday 9th	09:30	16067	'842' 759 41 67553 60950 67744 28126 23933.....03335
Saturday 10th	19:35	4014	'843' 00000
Monday 12th	19:00	3192	'349' 00000
Monday	19:15	8180	'805' 00000
Monday	20:15	6830	'805' 00000
Thursday 15th	09:30	16067	'842' 613 42 67048 78234 65131 04458 25426.....
Friday 16th	08:30	19875	'842' 613 42 67048 78234 65131 04458 25426.....
Monday 19th	19:00	3192	'349' 00000
Thursday 22nd	19:05	3838	'349' 00000
Monday 26th	19:00	3192	'349' 00000
Monday	19:15	8180	'805' 00000
Thursday 29th	19:00	3192	'349' 00000

S06c November

Weds 28th	11:00	11563	11019 x 4 minutes

S06s log November report:
Very few new messages sent this month, as can be seen from the traffic analysis under **repeated groups.**
The same old messages seem to be churned out year after year. So what is its purpose? Maybe all dummy traffic?
ID 328 started sending nulls from the beginning of the month using 8240/8712/9340/9824/10535/11025 at 10 min intervals.
ID 427 started sending nulls from the 13th using 8310/6975/7190/ ????/ 11865/11532 from 0730z at 10 minute intervals.
A few changes to last winters frequencies, mostly moving higher, or changing times.

S06s log November:

Mondays

5th/12th	0700/0710 8234/9270	'371' 926 5 12903 78465 67481 39028 45399
19th/26th	0830/0840	'371' 240 5 52401 63919 92699 14600 74248
5th/12th	1300/1310 8420/10635	'831' 954 6 78452 13215 79804 56327 89512 33102
19th/26th		'831' 475 6 09394 76911 75155 92918 97067 58604

Tuesdays

6th/13th	0600/0610 ?	'438' Not found
20th/27th		
6th/13th	0700/0715 5250/6320	'374' 290 5 11171 64385 82707 06123 22536
20th/27th		'374' 805 6 33796 13577 74526 46647 79302 53516
6th	0730/0740 5845/7440	'427' 819 5 94065 46640 30616 60373 34681
6th/13th	0800/0810 10265/9135	'352' 891 6 89258 78393 90318 92956 33697 89561
20th/27th		'352' 810 6 17266 35490 89127 67881 23993 46571
6th/13th	1000/1010 6440/5660	'893' 264 5 79559 38830 42386 76730 68517
20th/27th		'893' 201 5 92836 56473 89123 43436 73829

6th/13th	1500/1510 6845/917 0	‘537’ 419 6 88146 57856 98824 46186 16945 80744
20th/27th		‘537’ 298 6 89236 78841 32430 92837 65748

Wednesdays

7th/14th	0530/0540 9435/11075	‘153’ 274 6 74526 46647 79302 25616 56069 96813
21st/28th		‘153’ NRH
7th/14th	0730/0740 7030/6305	‘481’ 275 6 31149 95169 49149 46416 26428 46339
21st/28th		‘481’ 230 5 57623 13254 79845 34233 68777
7th/14th	0820/0830 6880/7840	‘471’ 205 6 87104 45703 97425 35503 42980 44684
21st/28th		‘471’ 902 5 76745 89045 34218 67544 78833
7th/14th	0830/0840 7335/11830	‘745’ 210 6 89969 35080 84737 47096 32207 46887
21st/28th		‘745’ 291 6 68734 69801 34275 13221 89993 85631
7th/14th	1000/1010 12365/14280	‘729’ 861 5 80351 40974 47664 32597 34928
21st/28th		‘729’ 480 5 11171 64385 82707 06123 22536
7th/14th	1230/1240 4580/6420	‘967’ too weak to copy
21st/28th		‘967’ 201 5 46062 68672 97478 39685 30485

Thursdays

1st/8th (E17z)	**0800/0810 11170/9820**	**‘674’ 210 5 65321 76885 98911 45488 23399**
15th/22nd		**‘674’ 203 5 88620 58069 61732 74537 57440**
1st/8th	0900/0910 12952/13565	‘167’ 209 5 46062 68672 97478 39685 30485
15th/22nd		‘167’ 284 5 10597 23521 47660 92883 69901
1st/8th	0930/0940 8812/9540	‘314’ 927 5 26634 14690 95590 60386 03009
15th/22nd		‘314’ 962 5 33796 13577 74526 46647 79302
1st/8th	1200/1210 12155/10920	‘425’ 978 6 68734 89674 13214 65743 90678 89432
15th/22nd		‘425’ 971 6 73521 11908 36274 39889 36250 10563
1st/8th	0900/0910 5410/6770	‘624’ not monitored
15th/22nd		‘624’ 985 7 39534 17228 15636 47891 23247 17099 94961

Fridays

2nd/9th	0600/0610 6085/8813	‘934’ 281 5 56342 68745 90867 13214 56401
16th/23rd		‘934’ 572 6 91544 42504 86121 61661 60808 89735
2nd/9th	0700/0710 7150/8215	‘196’ 203 5 67423 89634 12186 89453 90995
16th/23rd		‘196’ 208 5 20133 55091 85064 42524 91545
2nd/9th	0800/0810 5810/6770	‘278’ not monitored
16th/23rd		‘278’ 541 6 29245 28842 82264 14255 81545 74167
2nd/9th	0930/0940 11780/12570	‘516’ 420 7 06123 22536 88280 84116 53718 78927 34694
16th/23rd		‘516’ 903 7 54146 66941 40521 88695 78126 54351 23435

Saturday

3rd	1200/1210 8680/8260	‘254’ 918 6 74537 56440 64518 51295 27424 41926

Repeated message strings:

Monday	**19 Nov 2012**	**08.30**	**8234**	**‘371’ 240 5 52401 63919 92699 14600 74248**
Tuesday	21 Dec 2010	12.30	5810	‘278’ 409 5 52401 63919 92699 14600 74248
Friday	18 Nov 2011	07.10	8215	‘196’ 843 5 52401 63919 92699 14600 74248
Wednesday	22 Jun 2011	07.30	7335	‘745’ 892 6 52401 63919 92699 14600 74248 48754
Thursday	12 Jul 2012	09:00	12952	‘167’ 290 5 52401 63919 92699 14600 47248
Wednesday	18 Jul 2012	10:00	14580	‘729’ 403 5 52401 63919 92699 14600 72438
Monday	1 Oct 2012	12:00	11460	‘831’ 572 6 52401 63919 92699 14600 74248 48754
Tuesday	2 Oct 201 2	15:10	7242	‘537’ 918 6 52401 63919 92699 14600 74248 48754

Monday	**19 Nov 2012**	**13.00**	**8420**	**‘831’ 475 6 09394 76911 75155 92918 97067 58604**
Saturday	17 Apr 2010	10.10	7340	‘893’ 210 5 09394 76911 75155 92918 96067
Wednesday	18 Jul 2012	12:00	7765	‘481’ 502 6 09394 76911 75155 92918 97067 58604
Wednesday	3 Oct 2012	05:30	10835	‘153’ 987 6 09394 76911 75155 92918 97067 58604
Tuesday	**6 Nov 2012**	**07.00**	**5250**	**‘374’ 290 5 11171 64385 82707 06123 22536**
Wednesday	**21 Nov 2012**	**10.00**	**12365**	**‘729’ 480 5 11171 64385 82707 06123 22536**
Wednesday	7 Dec 2011	19.00	8530	‘371’ 520 6 11171 64385 82707 06123 22536 78280
Tuesday	13 Nov 2012	07:00	5250	‘374’ 290 5 11171 64385 82707 06124 22536
Wednesday	18 Jul 2012	05:30	11435	‘153’ 268 7 11171 64385 82707 06124 22536 88280 53718
Tuesday	**20 Nov 2012**	**07.00**	**5250**	**‘374’ 805 6 33796 13577 74526 46647 79302 53516**
Thursday	**15 Nov 2012**	**09:30**	**8812**	**‘314’ 962 5 33796 13577 74526 46647 79302**
Wednesday	7 Jul 2010	05.30	11435	‘153’ 294 6 33796 13577 74526 46646 79302 52516
Thursday	4 Mar 2010	12.00	10580	‘425’ 810 6 33796 13577 74526 46647 79302 53516
Wednesday	15 Jun 2011	08.40	10120	‘328’ 957 6 33796 13577 74526 46647 79302 53516
Thursday	19 Jul 2012	08:00	16780 E17z	‘674’ 820 5 33796 13577 74526 46647 79302
Tuesday	**6 Nov 2012**	**15.00**	**6845**	**‘537’ 419 6 88146 57856 98824 46186 16945 80744**
Thursday	8 Apr 2010	12.30	8650	‘314’ 957 6 88146 57856 98835 46185 15945 80744
Wednesday	**21 Nov 2012**	**12.40**	**6420**	**‘967’ 201 5 46062 68672 97478 39685 30485**
Thursday	**1 Nov 2012**	**09.00**	**12952**	**‘167’ 209 5 46062 68672 97478 39685 30485**
Wednesday	16 Jun 2010	19.00	10170	‘371’ 829 5 46062 67672 97478 39685 30485
Saturday	27 Mar 2010	10.10	7340	‘893’ 407 5 46062 68672 97478 39685 30485
Thursday	17 Nov 2011	09.00	12952	‘167’ 945 8 46062 68672 97478 39685 30485 96632 52537 53317
Tuesday	13 Dec 2011	07.00	5250	‘371’ 265 8 46062 68672 97478 39685 30485 96632 52537 53317
Wednesday	15 Feb 2012	10:00	12365	‘729’ 468 5 46052 68672 97478 39685 30485
Tuesday	2 Oct 2012	07:15	6930	‘374’ 915 6 46062 68672 94748 39685 30485 96632

Wednesday	18 Jul 2012	08:20	6755	‘471’ 203 5 46062 68672 97478 39685 30485
Thursday	**1 Nov 2012**	**08.00**	**11170**	**‘674’ 203 5 88620 58069 61732 74537 57440**
Wednesday	7 Dec 2011	12.00	7030	‘481’ 509 6 88620 58069 61732 74537 57440 10597
Tuesday	6 Jul 2010	08.00	7245	‘418’ 967 5 88620 68069 61732 74537 57440
Wednesday	18 Jul 2012	12:40	8220	‘967’ 823 5 88620 58069 61732 745-7 57440
Tuesday	2 Oct 2012	06:00	14080	‘438’ 961 5 88620 58069 61732 74535 57440
Tuesday	23 Oct 2012	07:00	5760	‘374’ 829 6 88620 58069 61732 74537 57440 10597
Wednesday	17 Oct 2012	08:20	7605	‘471’ 208 6 88620 58069 61732 74537 57440 24521
Thursday	**1 Nov 2012**	**09.30**	**8812**	**‘314’ 927 5 26634 14690 95590 60386 03009**
Tuesday	6 Apr 2010	08.10	9840	‘418’ 579 6 26634 14690 95590 60386 03009 81413
Friday	**16 Nov 2012**	**07.00**	**7150**	**‘196’ 208 5 20133 55091 85064 42524 91545**
Monday	7 Feb 2011	16.00	7436	‘176’ 840 5 20133 55091 85064 42524 91545
Friday	**16 Nov 2012**	**08.00**	**5810**	**‘278’ 541 6 29245 28842 82264 14255 81545 74167**
Friday	7 May 2010	06.00	8340	‘934’ 260 5 29245 28842 82264 14255 81545
Wednesday	1 Dec 2010	12.00	7030	‘481’ 972 5 29245 28842 82264 14255 81545
Friday	16 Sep 2011	06.10	8695	‘196’ 240 5 29245 28842 82264 14255 81545
Monday	19 Sep 2011	12.00	9145	‘831’ 924 5 29245 28842 82264 14255 81545
Wednesday	1 Sep 2010	05.30	10835	‘153’ 487 6 29245 28842 82264 14255 81545 74167
Thursday	23 Sep 2010	12.00	12560	‘425’ 901 6 29245 28842 82264 14255 81545 74167
Tuesday	14 Jun 2011	15.10	7744	‘537’ 912 6 29245 28842 82264 14255 81545 74167
Thursday	9 Feb 2012	14:00	5410	‘624’ 981 5 29245 28842 07306 84564 54146
Wednesday	18 Apr 2012	08:40	9480	‘328’ 945 6 29245 28842 82264 14255 81545 74165
Friday	**16 Nov 2012**	**09.30**	**11780**	**‘516’ 903 7 54146 66941 40521 88695 78126 54351 23435**
Thursday	4 Mar 2010	09.10	12310	‘167’ 809 5 54146 66941 40521 88695 78126
Wednesday	9 Nov 2011	19.00	8530	‘371’ 450 6 54146 66941 40521 88695 78126 65251
Tuesday	21 Dec 2010	08.10	10265	‘352’ 489 6 54146 66941 40521 88695 78126 65351
Tuesday	12 Jul 2011	12.30	7650	‘278’ 459 6 54146 66941 40521 88695 78126 65351
Friday	16 Sep 2011	06.00	6340	‘934’ 285 6 54146 66941 40521 88695 78126 95679
Tuesday	3 Aug 2010	08.00	14373	‘352’ 840 6 54156 66941 40521 88695 78126 65351
Wednesday	18 Apr 2012	08:20	7605	‘471’ 850 6 54146 66941 40521 88695 67126 65351
Thursday	**15 Nov 2012**	**09:00**	**5410**	**‘624’ 985 7 39534 17228 15636 47891 23247 17099 94961**
Friday	13 Jul 2012	09:30	10290	‘516’ 403 7 39534 17228 15636 47891 23247 17099 94961

S06 log December:

Monday 3rd	19:05	3838	‘349’ 00000
Tuesday 4th	18:00	3645	‘617’ 00000
Thursday 6th	19:00	3192	‘349’ 00000
Monday 17th	19:00	3192	‘349’ 00000
Saturday 22nd	16:05	5932	‘937’ 00000
	19.30	3212	‘843’ 00000
Monday 24th	19:00	3202	‘349’ 00000
	20:15	5140	‘418’ 00000
Thursday 27th	19:00	3192	‘349’ 00000

S06c log December:
Thursday 20th 14832kHz 1458z to 1502z sending 11004 and again from 1505z to 1509z

S06s log December report:
ID 745 has been on Xmas holiday this month sending nulls on 7195/7425/11531/11735/11940 and 12141 at 10 minute intervals
ID 471 went on holiday from the 19th using 5130/5841/6282/6778/7244 and 7615 (also every 10 mins)
ID 481 not found this month. Possibly change of time/day?
ID 328 returned to message sending this month on normal schedule.
ID 427 returned to message sending on the 11th

S06s log December:

Mondays

3rd/10th	0700/0710 8234/9270	‘371’ ?
17th/24th	0830/0840	‘371’ 209 5 33796 13577 74526 46647 79302
3rd/10th	0900/0910 14675/12830	‘872’ No reports
17th/24th		‘872’ 415 6 52441 27731 13543 72510 54059 10254
3rd/10th	1300/1310 8420/10635	‘831’ 209 5 68745 34213 89674 90785 56423
17th/24th		‘831’ 945 6 88620 58069 61732 74537 57440 10597

Tuesdays

4th/11th	0600/0610 ?	‘438’ Not found
4th/11th	0700/0715 5250/6320	‘374’ 206 5 78534 80967 23154 67453 78562
18th/25th		‘374’ 826 5 06123 22536 88280 84116 53718
11th/18th	0730/0740 5845/7440	‘427’ 913 5 68452 34127 89563 09781 13215
25th		‘427’ NRH
4th/11th	0800/0810 10265/9135	‘352’ 978 6 65906 66610 20336 17301 89554 82045
18th/25th		‘352’ 817 6 24035 84090 09531 88480 33240 61135
4th/11th	1000/1010 6440/5660	‘893’ 204 5 11749 70552 56936 57989 05371
18th/25th		‘893’ 260 5 39534 17228 15636 47891 23247
4th/11th	1500/1510 6845/9170	‘537’ 241 6 50312 29037 16146 51174 95780 29522

18th/25th		‘537’ 294 6 13577 74526 46647 79302 88620 58069

Wednesdays

5th/12th	0530/0540 9435/11075	‘153’ Too weak to copy
19th/26th		‘153’ Too weak to copy
5th/12th	0730/0740 7030/6305	‘481’ NRH
19th/26th		‘481’ NRH
5th/12th	0820/0830 6880/7840	‘471’ 863 5 52401 63919 92699 14600 42748
5th/12th	0840/0850 9260/11415	‘328’ 506 7 88280 84116 53718 78924 34694 11171 63895
19th/26th		‘328’ 471 5 43828 55581 20044 52985 53928
5th/12th	1000/1010 12365/14280	‘729’ 863 5 16070 48834 53735 61088 02440
19th/26th		‘729’ 416 5 96633 52537 53317 06675 41736
5th/12th	1230/1240 4580/6420	‘967’ 430 5 50128 99477 83574 48874 94031
19th/26th		‘967’ 214 5 24151 51802 23807 15521 98003

Thursdays

6th/13 (E17z)	**0800/0810 11170/9820**	**‘674’ 298 5 18276 35667 09816 78593 95123**
20th/27th		**‘674’ 208 5 53754 42788 64580 61384 96959**
6th/13th	0900/0910 12952/13565	‘167’ 834 5 88620 58069 61732 74537 57440
20th/27th		‘167’ 298 5 34929 75293 57457 66476 54374
6th/13th	0900/0910 5410/6770	‘624’ 953 7 33796 13577 74526 46647 79302 53516 25616
20th/27th		‘624’ 958 7 15438 04535 96295 62434 96799 24373 51236
6th/13th	0930/0940 8812/9540	‘314’ 296 5 22536 88280 84116 53718 34694
20th/27th		‘314’ 280 5 54547 50128 00477 83574 75956
6th/13th	1200/1210 12155/10920	‘425’ 803 6 09394 13808 71909 83981 24035 48115
20th/27th		‘425’ 837 6 24035 47115 24151 51802 23807 84116

Fridays

7th/14th	0600/0610 6085/8813	‘934’ 528 6 45268 43727 55571 29944 52875 53996
21st/28th		‘934’ 856 7 74248 48754 64125 41879 84648 42036 94063
7th/14th	0700/0710 7150/8215	‘196’ 280 5 80744 86200 84706 42227 61736
21st/28th		‘196’ 273 5 22536 88280 84116 53718 78927
7th/14th	0800/0810 5810/6770	‘278’ 950 6 52401 63919 92699 14600 74248 48754
21st/28th		‘278’ 530 6 53926 95312 78562 21908 55593 16772
7th/14th	0930/0940 11780/12570	‘516’ 428 7 96113 10471 25757 77159 95225 22536 88280
21st/28th		‘516’ 809 7 40550 90140 86714 52070 63858 10682 82482

Saturday

1st	1200/1210 8680/8260	‘254’ 918 6 74537 56440 64518 51295 27424 41926

Some examples of repeated message strings. This months’ in BOLD

Monday	**17 Dec 2012**	**08.30**	**8234**	**‘371’ 209 5 33796 13577 74526 46647 79302**
Thursday	**6 Dec 2012**	**09:00**	**5410**	**‘624’ 953 7 33796 13577 74526 46647 79302 53516 25616**
Wednesday	7 Jul 2010	05.30	11435	‘153’ 294 6 33796 13577 74526 46646 79302 52516
Thursday	4 Mar 2010	12.00	10580	‘425’ 810 6 33796 13577 74526 46647 79302 53516
Wednesday	15 Jun 2011	08.40	10120	‘328’ 957 6 33796 13577 74526 46647 79302 53516
Thursday	19 Jul 2012	08:00	16780 E17z	‘674’ 820 5 33796 13577 74526 46647 79302
Thursday	15 Nov 2012	09:30	8812	‘314’ 962 5 33796 13577 74526 46647 79302
Tuesday	20 Nov 2012	07:00	5250	‘374’ 805 6 33796 13577 74526 46647 79302 53516

Monday	**17 Dec 2012**	**13.00**	**8420**	**‘831’ 945 6 88620 58069 61732 74537 57440 10597**
Thursday	**6 Dec 2012**	**09:00**	**12952**	**‘167’ 834 5 88620 58069 61732 74537 57440**
Wednesday	7 Dec 2011	12.00	7030	‘481’ 509 6 88620 58069 61732 74537 57440 10597
Tuesday	6 Jul 2010	08.00	7245	‘418’ 967 5 88620 68069 61732 74537 57440
Wednesday	18 Jul 2012	12:40	8220	‘967’ 823 5 88620 58069 61732 745-7 57440
Tuesday	2 Oct 2012	06:00	14080	‘438’ 961 5 88620 58069 61732 74535 57440
Thursday	15 Nov 2012	08:00	11170 E17z	‘674’ 203 5 88620 58069 61732 74537 57440
Tuesday	23 Oct 2012	07:00	5760	‘374’ 829 6 88620 58069 61732 74537 57440 10597
Wednesday	17 Oct 2012	08:20	7605	‘471’ 208 6 88620 58069 61732 74537 57440 24521

Tuesday	**4 Dec 2012**	**08.00**	**10265**	**‘352’ 978 6 65906 66610 20336 17301 89554 82045**
Friday	2 Apr 2010	06.00	7795	‘196’ 480 5 65906 66610 20336 17301 88554

Wednesday	**5 Dec 2012**	**08.20**	**6880**	**‘471’ 863 5 52401 63919 92699 14600 42748**
Friday	**7 Dec 2012**	**08.00**	**5810**	**‘278’ 950 6 52401 63919 92699 14600 74248 48754**
Tuesday	21 Dec 2010	12.30	5810	‘278’ 409 5 52401 63919 92699 14600 74248
Friday	18 Nov 2011	07.10	8215	‘196’ 843 5 52401 63919 92699 14600 74248
Wednesday	22 Jun 2011	07.30	7335	‘745’ 892 6 52401 63919 92699 14600 74248 48754
Thursday	12 Jul 2012	09:00	12952	‘167’ 290 5 52401 63919 92699 14600 47248
Monday	19 Nov 2012	08:30	8234	‘371’ 240 5 52401 63919 92699 14600 47248
Wednesday	18 Jul 2012	10:00	14580	‘729’ 403 5 52401 63919 92699 14600 72438
Monday	1 Oct 2012	12:00	11460	‘831’ 572 6 52401 63919 92699 14600 74248 48754
Tuesday	2 Oct 2012	15:10	7242	‘537’ 918 6 52401 63919 92699 14600 74248 48754

Wednesday	**5 Dec 2012**	**08.40**	**9260**	**‘328’ 506 7 88280 84116 53718 78924 34694 11171 63895**
Friday	**21 Dec 2012**	07.00	7150	‘196’ 273 5 22536 **88280 84116 53718 78927**
Friday	**7 Dec 2012**	09.30	11780	‘516’ 428 7 96113 10471 25757 77159 95225 **22536 88280**

These last 3 messages seem to be taking sections of the string:-
96113 10471 25757 77159 95225 22536 88280 84116 53718 78924 34694 11171 63895

Now onto others logs, freq/date order:

November2012

3192kHz1900z	12/11[349R3x/00000] Very Strong	ATC	MON
1900z	15/11[349 00000]1904z S9	MP	THU
1900z	19/11[349R3x/00000] Strong	ATC	MON
1900z	26/11[349 00000] 1904z Strong	Hans, ATC	MON
1900z	29/11[349 00000]	HJH	THU
3212kHz1930z	24/11[843 00000] 1934z Fair	ATC	SAT
3626kHz2100z	03/11[416 00000] Strong signal, very strong noise	FR	SAT
3838kHz1905z	01/11[349 00000] Very strong signal, moderate/strong noise	FR	THU
1905z	05/11[349 349 349 00000 R] 1909z QSA3 QRN2 QSB2	tiNG	MON
1900z	15/11[349 00000] 1904z Weak QRN4 QSB3	Spectre	FRI
4452kHz2130z	03/11[314 00000] Strong signal, moderate/strong noise	FR, ATC	SAT
5118kHz2030z	03/11[314 00000] Strong signal, strong noise	FR, ATC	SAT

December 2012

3212kHz1900z	01/12[843 00000]	HJH	SAT
1930z	15/12[843R3x/00000] 1934z Fair	ATC	SAT
3192kHz1900z	17/11[349 00000] 1904z Very Strong	ATC, Spectre	MON
3626kHz2100z	15/12[416R3x/00000] 2104z Strong	ATC	SAT
3838kHz1905z	03/12[349 00000]	HJH	MON
1905z	10/12[349 00000] Poor, workeable	HJH	MON
4014kHz1935z	08/12[843 00000] 1939z Fair QRN3 QSB3	Spectre	SAT
4489kHz2000z	15/12[416R3x/00000] 2004z Fair	ATC	SAT
5118kHz2030z	15/12[314R3x/00000] 2034z Very Weak	ATC	SAT
2130z	15/12[314R3x/00000] 2134z Very Strong	ATC	SAT

S06s
November2012

4580kHz1230z	21/11[967 201 5 46062 68672 97478 39685 30485 201 5 00000(s)] 1235z Very Weak QRN3 QSB3	Spectre	WED
1230z	28/11[967 201 5 46062 68672 97478 39685 30485 201 5 00000(s)] 1235z Very Weak QRN3 QSB3	Spectre	WED
5250kHz0700z	13/11[374 290 5 11171 64315 12707 06123 22536 290 5 00000] 0705z Strong	ATC	TUE
0700z	20/11[374 805 6 33896 13577 74526 46647 79302 53516 805 6 00000]	ATC , Spectre	TUE
0700z	27/11[374 805 6 33896 13577 74526 46647 79302 53516 805 6 00000]	ATC , Spectre	TUE
5660kHz1010z	06/11[893 264 5 79559 38830 42386 76730 85176 264 5 00000(s)] 1015z Weak QRN3 QSB3	Spectre , MP	TUE
1010z	13/11[893 264 5 79559 38830 42386 76730 85176 264 5 00000(s)] 1015z Weak QRN3 QSB3	Spectre	TUE
6305kHz0740z	07/11[481 275 6 31149 95169 49149 46416 26421 46339 275 6 00000] 0745zVery Weak QRM4	ATC	WED
0740z	28/11[481 230 5 57623 13254 79845 34233 68777 230 5 00000] 0745z Very Weak QRM4	ATC	WED
6320kHz0710z	20/11[374 805 6 33796 13577 74526 46647 79302 53516 805 6 00000(s)] 0715z Fair QRN2 QSB2	Spectre	TUE
0710z	27/11[374 805 6 33796 13577 74526 46647 79302 53516 805 6 00000(s)] 0715z Fair QRN2 QSB2	Spectre	TUE
6420kHz1240z	21/11[967 201 5 46062 68672 97478 39685 30485 201 5 00000(s)] 1245z Very Weak QRN3 QSB3	Spectre	WED
1240z	28/11[967 201 5 46062 68672 97478 39685 30485 201 5 00000(s)] 1245z Very Weak QRN3 QSB3	Spectre	WED
6440kHz 1000z	06/11[893 264 5 79559 38830 42386 76730 85176 264 5 00000(s)] 1005z Weak QRN3 QSB3	Spectre	TUE
1000z	13/11[893 264 5 79559 38830 42386 76730 85176 264 5 00000(s)] 1005z Weak STANAGQRM3 QSB3	Spectre	TUE
1000z	27/11[893 ?????] Very Weak	ATC	TUE
6770kHz0910z	29/11[624 00000] 0913z Fair	ATC	THU
6845kHz1500z	06/11[537 419 6 88146 57856 98824 46186 16945 80744 419 6 00000(s)] 1505z Fair QRN2 QSB2	Spectre, MP	TUE
1500z	13/11[537 419 6 88146 57856 98824 46186 16945 80744 419 6 00000(s)] 1505z Fair QRN2 QSB2	Spectre	TUE
1500z	27/11[537 298 6 89235 78847 32430 92838 65748 90128 298 6 00000] 1505z Weak	ATC	TUE
6880kHz0820z	07/11[471 205 6 87104 45703 97425 35503 42980 44684 205 6 00000(s)] 0825z Weak QRN3 QSB3	Spectre, ATC	WED
0820z	21/11[471 902 5 76745 89045 34218 67544 7??33 902 5 00000] 0825z Weak	ATC	WED
0820z	28/11[471 902 5 76745 89045 34218 67544 78833 902 5 00000] 0825z Very Strong	ATC	WED
7030kHz0730z	07/11[481 275 6 31149 95169 49149 46416 26421 46339 275 6 00000] 0735z Strong	ATC	WED
0730z	21/11[481 230 5 57623 13254 79845 34233 68777 230 5 00000] Very Strong QRM4(Amateur CW)	ATC	WED
0730z	28/11[481 230 5 57623 13254 79845 34233 68777 230 5 00000] 0735zVery Strong	ATC	WED

7150kHz0700z	09/11[196 203 5 61423 95?34 21861 89456 9099? 203 5 00000] Very Weak, unsure		ATC	FRI
0700z	16/11[196 208 5 20133 55091 85064 42524 97545 208 5 00000(s)] 0705z Weak QRN4 QSB3		Spectre	FRI
0700z	23/11[196 208 5 20133 55091 85064 42524 97545 208 5 00000(s)] 0705z Weak QRN3 QSB3		Spectre	FRI
7335kHz0830z	07/11[745 210 6 89969 35080 84737 47096 32207 46887 210 6 00000] 0835z Strong		ATC	WED
0830z	14/11[745 210 6 89969 35080 84737 47096 32207 46887 210 6 00000]0835z S9+20		MP, M8	WED
0830z	21/11[745 291 6 68734 69801 34275 13221 89993 85631 291 6 00000] 0835 Very Strong		ATC	WED
0830z	28/11[745 291 6 68734 69801 34275 13221 89993 85631 291 6 00000] 0835 Very Strong		ATC	WED
7840kHz0830z	07/11[471 205 6 87104 45703 97425 35503 42980 44684 205 6 00000(s)] 0835z Weak QRN3 QSB3		Spectre	WED
0830z	14/11[471 205 6 87104 45703 97425 35503 42980 44684 205 6 00000]0835z S9+10		MP, Spectre	WED
8215kHz0710z	16/11[196 208 5 20133 55091 85064 42524 97545 208 5 00000(s)] 0715z Weak QRN4 QSB3		Spectre	FRI
0710z	23/11[196 208 5 20133 55091 85064 42524 97545 208 5 00000(s)] 0715z Weak QRN3 QSB3		Spectre	FRI
8234kHz0830z	26/11[371 240 5 52401 63919 92699 14600 74248 240 5 00000]0835z S1		M8	MON
8260kHz1210z	03/11[254 918 6 74537 56440 64518 51295 27424 41926 918 6 00000] Very strong signal, moderate noise		FR, Spectre	SAT
8420kHz1300z	05/11[831 954 6 78452 13215 71804 56327 89512 33102 954 6 00000(s)] 1305z Weak QRN3 QSB3		Spectre	MON
1300z	12/11[831 954 6 78452 13215 71804 56327 89512 33102 954 6 00000(s)] 1305z Weak QRN3 QSB3		M8,Spectre	MON
1300z	19/11[831 475 6 09394 76911 75155 92918 97067 58604 475 6 00000(s)] 1305z Weak QRN4 QSB4		M8,Spectre	MON
1300z	26/11[831 475 6 09394 76911 75155 92918 97067 58604 475 6 00000(s)] 1305z Weak QRN3 QSB3		Spectre	MON
8680kHz1200z	03/11[254 918 6 74537 56440 64518 51295 27424 41926 918 6 00000] Very strong signal, QRM		FR,M8, Spectre	SAT
8712kHz0850z	14/11[328 00000]0854z S9		MP, Spectre	WED
9135kHz0810z	06/11[352 891 6 89258 78393 90318 92956 33697 89561 891 6 00000(s)] 0815z Fair QRN3 QSB3		Spectre,MP	TUE
0810z	13/11[352 891 6 89258 78393 90318 92956 33697 89561 891 6 00000(s)] 0815z Fair QRN3 QSB3		Spectre, AE,ATC	TUE
0810z	20/11[352 810 6 17266 35490 89127 67881 23993 46571 810 6 00000(s)] 0815z Weak QRN3 QSB3		Spectre	TUE
0810z	27/11[352 810 6 17266 35490 89127 67881 23993 46571 810 6 00000(s)] 0815z Fair QRN3 QSB3		Spectre, ATC	TUE
9170kHz1510z	13/11[537 419 6 88146 57856 98824 46186 16945 80744 419 6 00000]1515z S9+10		MP ,Spectre	TUE
1510z	27/11[537 298 6 89235 78847 32430 92838 65748 90128 298 6 00000] 1515z Weak		ATC	TUE
9270kHz0840z	26/11[371 240 5 52401 63919 92699 14600 74248 240 5 00000]0845z S3		M8	MON
9340kHz0900z	14/11[328 00000]0904z S9+20		MP ,Spectre	WED
10265kHz0800z	06/11[352 891 6 89258 78393 90318 92956 33697 89561 891 6 00000(s)] 0805z Fair QRN3 QSB3		Spectre	TUE
0800z	13/11[352 891 6 89258 78393 90318 92956 33697 89561 891 6 00000(s)] 0805z Fair QRN3 QSB3		Spectre, AE	TUE
0800z	20/11[352 810 6 17266 35490 89127 67881 23993 46571 810 6 00000(s)] 0805z Weak QRN3 QSB3		Spectre	TUE
0800z	27/11[352 810 6 17266 35490 89127 67881 23993 46571 810 6 00000(s)] 0805z Fair QRN3 QSB3		Spectre	TUE
10635kHz1310z	05/11[831 954 6 78452 13215 79804 56327 89512 33102 954 6 00000]1315z S5		M8, Spectre	MON
1310z	12/11[831 954 6 78452 13215 79804 56327 89512 33102 954 6 00000]1315z S6		M8, HJH Spectre	MON
1310z	19/11[831 475 6 09394 76911 75155 92918 97067 58604 475 6 00000(s)] 1315z Fair QRN4 QSB3		Spectre	MON
1310z	26/11[831 475 6 09394 76911 75155 92918 97067 58604 475 6 00000]1315z S8		M8, ATC Spectre	MON
10920kHz1210z	08/11[426 978 6 68734 89674 13284 65743 90678 89432 978 6 00000] Strong, QRM2	(5m46s)	PLdn	THU
11780kHz0930z	02/11[516 420 7 06123 22536 88280 84116 53718 78927 34694 420 7 00000] 0936z Very Strong	(5m44s)	PLdn Spectre	FRI
0930z	09/11[516 420 7 06123 22536 88280 84116 53818 78927 04694 420 7 00000] 0935z Very Weak		ATC Spectre	FRI
0930z	16/11[516 903 7 54146 66941 40521 88695 78126 54351 23435 903 8 00000(s)] 0936z Fair QRN3 QSB3		Spectre	FRI
0920z	23/11[516 903 7 54146 66941 40521 88695 78126 54353 23435 803 7 00000] 0935z Very strong	(4m46s)	PLdn Spectre	FRI
0930z	30/11[516 00000] 0934z Very strong	(4m00s)	PLdn	FRI
11830kHz 0840z	07/11[745 210 6 89969 35080 84737 47096 32207 46887 210 6 00000(s)] 0845z Fair QRN3 QSB3		Spectre	WED
0840z	14/11[745 210 6 89969 35080 84737 47096 32207 46887 210 6 00000(s)] 0845z Fair QRN3 QSB3		Spectre, MP, M8	WED
0840z	21/11[745 291 6 68734 69801 34275 13221 89993 85631 291 6 00000(s)] 0845z Fair QRN3 QSB3		Spectre	WED
0840z	28/11[745 291 6 68734 69801 34275 13221 89993 85631 291 6 00000(s)] 0845z Fair QRN3 QSB3		Spectre	WED
12155kHz1200z	08/11[426 978 6 68734 89674 13284 65743 90678 89432 978 6 00000] Very strong	(5m46s)	PLdn	THU
12365kHz1000z	07/11[729 861 5 80351 40974 47664 32597 34928 861 5 00000] 1005z Fair		ATC , Spectre	WED
1000z	14/11[729 861 5 80351 40974 47664 32597 34928 861 5 00000] 1005z Strong, QSB2	(5m26s)	PLdn, Spectre	WED
1000z	21/11[729 480 5 11171 64385 82707 06123 22536 480 5 00000] 1005z Very Strong		ATC , Spectre	WED
1000z	28/11[729 480 5 11171 64385 82707 06123 22536 480 5 00000] 1005z Very stromg	(5m17s)	PLdn, ATC , Spectre	WED
12570kHz 0940z	02/11[516 420 7 06123 22536 88280 84116 53718 78927 34694 420 7 00000(s)] 0946z Fair QRN3 QSB3		Spectre, PLdn	FRI
0940z	09/11[516 420 7 06123 22536 88280 84116 53718 78927 34694 420 7 00000(s)] 0946z Fair QRN3 QSB3		Spectre, PLdn	FRI
0940z	16/11[516 903 7 54146 66941 40521 88695 78126 54351 23435 903 8 00000(s)] 0946z Fair QRN3 QSB3		Spectre	FRI
0940z	23/11[516 903 7 54146 66941 40521 88695 78126 54351 23435 903 8 00000(s)] 0946z Fair QRN3 QSB3		Spectre	FRI
12957kHz0900z	01/11[167 209 5 46062 68672 97478 39685 30485 209 5 00000(s)] 0905z Fair CarrierQRM3 QSB2		Spectre, EW	THU
0900z	08/11[167 209 5 46062 68672 97478 39685 30485 209 5 00000(s)] 0905z Strong CarrierQRM3 QSB2		Spectre	THU
0900z	15/11[167 284 5 10597 23521 47660 92883 69901 284 5 00000(s)] 0905z Fair CarrierQRM3 QSB2		Spectre	THU
0900z	22/11[167 284 5 10597 23521 47660 92883 69901 284 5 00000(s)] 0905z Fair CarrierQRM3 QSB2		Spectre	THU

13565kHz0910z	01/11[167 209 5 46062 68672 97478 39685 30485 209 5 00000(s)] 0915z Fair QRN2 QSB2		Spectre	THU
0910z	08/11[167 209 5 46062 68672 97478 39685 30485 209 5 00000(s)] 0915z Strong QRN2 QSB2		Spectre, EW	THU
0910z	15/11[167 284 5 10597 23521 47660 92883 69901 284 5 00000(s)] 0915z Fair QRN2 QSB2		Spectre	THU
0910z	22/11[167 284 5 10597 23521 47660 92883 69901 284 5 00000(s)] 0915z Fair QRN2 QSB2		Spectre	THU
14280kHz1010z	07/11[729 861 5 80351 40974 47664 32597 34928 861 5 00000] 1015z Fair		ATC ,Spectre	WED
1010z	14/11[729 861 5 80351 40974 47664 32597 34928 861 5 00000] 1015z Very strong	(5m26s)	PLdn, M8 ,Spectre	WED
1010z	21/11[729 480 5 11171 64385 82707 06123 22536 480 5 00000] 1015z Weak		ATC ,Spectre	WED
1010z	28/11[729 480 5 11171 64385 82707 06123 22536 480 5 00000] 1015z Very stromg, 20MQRM2	(5m17s)	PLdn, ATC ,Spectre	WED

December 2012

4580kHz1230z	05/12[967 430 5 50128 99477 83574 48874 94031 430 5 00000(s)] 1235z Weak QRN3 QSB3		Spectre	WED
1230z	12/12[967 430 5 50128 99477 83574 48874 94031 430 5 00000(s)] 1235z Weak QRN4 QSB3		Spectre, MP	WED
5250kHz0700z	04/12[375 206 5 78534 80967 23154 67453 78562 206 5 00000] 0705z Fair		ATC	TUE
0700z	11/12[374 206 5 78534 80967 23154 67453 78562 206 5 00000] 0705z Weak		ATC	TUE
5845kHz0730z	11/12[427 913 5 68452 34127 89563 09781 13215 916 5 00000] 0735z Fair		ATC	TUE
5660kHz1010z	04/12[893 204 5 11749 70552 56936 57989 05371 204 5 00000(s)] 1015z Fair QRN3 QSB3		Spectre	TUE
1010z	11/12[893 204 5 11749 70552 56936 57989 05381 204 5 00000] 1015z Very Weak		ATC, Spectre	TUE
6420kHz1240z	05/12[967 430 5 50128 99477 83574 48874 94031 430 5 00000(s)] 1245z Weak QRN3 QSB3		Spectre	WED
1240z	12/12[967 430 5 50128 99477 83574 48874 94031 430 5 00000]1245z S9+10		MP, ATC, Spectre	WED
6440kHz1000z	04/12[893 204 5 11749 70552 56936 57989 05371 204 5 00000(s)] 1005z Fair QRN3 QSB3		Spectre, ATC	TUE
1000z	11/12[893 204 5 11749 70552 56936 57989 05371 204 5 00000(s)] 1005z Fair QRN4 QSB3		Spectre	TUE
6770kHz0910z	27/12[624 958 7 15438 04535 96295 62434 96799 24373 51236 958 7 00000] 0915z Very Weak		ATC	THU
6845kHz1500z	04/12[537 241 6 50312 29038 16146 51134 95780 2?522 241 6 00000] 1505z Very Weak		ATC	TUE
1500z	11/12[537 241 6 50312 29037 16146 51174 95780 29522 241 6 00000] 1505z Strong		ATC	TUE
6880kHz0820z	12/12[471 863 5 52401 ... 42748 863 5 00000(s)] 0825z Weak QRN4 QSB4		Spectre	WED
7150kHz0700z	14/12[196 280 5 ?????] 0705? Very Weak QRM3 (Amateurs)		ATC	FRI
7317kHz0820z	27/12[438 00000] 0823z Fair		ATC	THU
7440kHz 0740z	18/12[427 913 5 68452 34127 89563 09781 13215 913 5 00000(s)] 0740z Fair QRN2 QSB2		Spectre	TUE
7840kHz 0830z	12/12[471 863 5 52401 ... 42748 863 5 00000(s)] 0835z Weak QRN4 QSB3		Spectre	WED
8260kHz1210z	01/12[254 918 6 74537 56440 64518 51295 27424 41926 918 6 00000] Very strong, QRM		FR, M8, Spectre	SAT
8420kHz1300z	10/12[831 209 5 68745 34213 89674 90785 56423 209 5 00000]1305z S1		M8, ATC	MON
1300z	17/12[831 945 6 88620 58069 61732 74537 57440 10597 945 6 00000(s)] 1305z Weak QRN4 QSB3		Spectre	MON
1300z	24/12[831 945 6 88620 58069 61732 74537 57440 10597 945 6 00000(s)] 1305z Fair QRN3 QSB3		Spectre	MON
8680kHz1200z	01/12[254 918 6 74537 56440 64518 51295 27424 41926 918 6 00000] Strong, QRM		FR, M8, Spectre	SAT
8813kHz0610z	14/12[934 528 6 45268 43727 55571 29944 52875 53996 528 6 00000] 0615z Very Strong		ATC	FRI
9260kHz0840z	12/12[328 506 7 88280 84116 53718 78924 34694 11171 63895 506 7 00000] 0845z Weak		ATC	WED
9540kHz0940z	06/12[314 296 5 22536 88280 84116 53718 34694 296 5 00000]0945z S2		M8	THU
9135kHz 0810z	04/12[352 810 6 87266 35490 89127 67881 23793 46571 810 6 00000(s)] 0815z Fair QRN4 QSB3 Note: Repeat of 11 Nov 2009 with additional last group[ATC]		Spectre, ATC	TUE
0810z	11/12[352 978 6 65906 66610 20336 17301 88554 82045 978 6 00000(s)] 0815z Fair QRN3 QSB3		Spectre, ATC	TUE
0810z	19/12[352 817 6 24035 84090 09531 88430 33240 61135 817 6 00000(s)] 0815z Weak QRN3 QSB3		Spectre	TUE
0810z	25/12[352 817 6 24035 84090 09531 88430 33240 61135 817 6 00000(s)] 0815z Weak QRN3 QSB3		Spectre	TUE
9170kHz1510z	11/12[537 241 6 50312 29037 16146 51174 95780 29522 241 6 00000] 1515z Fair		ATC	TUE
10265kHz0800z	04/12[352 810 6 87266 35490 89127 67881 23793 46571 810 6 00000(s)] 0805z Fair QRN4 QSB3 Note: Repeat of 11 Nov 2009 with additional last group[ATC]		Spectre, ATC	TUE
0800z	11/12[352 978 6 65906 66610 20336 17301 88554 82045 978 6 00000(s)] 0805z Fair QRN3 QSB3		Spectre	TUE
0800z	19/12[352 817 6 24035 84090 09531 88430 33240 61135 817 6 00000(s)] 0805z Weak QRN3 QSB3		Spectre	TUE
0800z	25/12[352 817 6 24035 84090 09531 88430 33240 61135 817 6 00000(s)] 0805z Weak RTTYQRM3 QSB3		Spectre, GD	TUE
10635kHz1310z	10/12[831 209 5 68745 34213 89674 90785 56423 209 5 00000]1315z S7		ATC, M8	MON
1310z	17/12[831 945 6 88620 58069 61732 74537 57440 10597 945 6 00000(s)] 1315z Fair QRN3 QSB3		Spectre	MON
1310z	24/12[831 945 6 88620 58069 61732 74537 57440 10597 945 6 00000(s)] 1315z Fair QRN3 QSB3		Spectre	MON
10920kHz1210z	06/12[425 803 6 09394 13808 71909 83981 24035 48115 803 6 00000]1215z S3		M8	THU
1210z	27/12[425 837 6 24035 47115 24151 51802 23807 84116 831 6 00000] 1215z Very Weak		ATC	THU
11415kHz0850z	12/12[328 506 7 88280 84116 53718 78924 34694 11171 63895 506 7 00000] 0855z Fair		ATC	WED
11780kHz 0930z	07/12[516 428 7 96113 10471 25757 77159 95225 22536 88280 428 7 00000(s)] 0936z Fair QRN3 QSB2		Spectre	FRI
0930z	14/12[516 428 7 96112 10471 25757 77159 95225 22536 88280 428 7 00000]0936z S7		M8	FRI

12155kHz	1200z	06/12[425 803 6 09394 13808 71909 83981 24035 48115 803 6 00000]1205z S2	M8	THU
	1200z	27/12[425 837 6 24035 47115 24151 51802 23807 84116 831 6 00000] 1205z Very Weak	ATC	THU
12365kHz	1000z	05/12[729 863 5 16070 48834 53735 61088 02440 863 5 00000(s)] 1005z Fair QRN3 QSB2	Spectre	WED
	1000z	12/12[729 863 5 16070 48834 53735 61088 02440 863 5 00000(s)] 1005z Fair QRN3 QSB2	Spectre, ATC	WED
	1000z	19/12[729 416 5 96633 52537 53517 06675 41736 416 5 00000(s)] 1005z Fair QRN3 QSB2	Spectre	WED
	1000z	26/12[729 416 5 96633 52537 53517 06675 41736 416 5 00000(s)] 1005z Fair QRN3 QSB3	Spectre	WED
12570kHz	0940z	07/12[516 428 7 96113 10471 25757 77159 95225 22536 88280 428 7 00000(s)] 0946z Fair QRN3 QSB2	Spectre	FRI
	0940z	14/12[516 428 7 96112 10471 25757 77159 95225 22536 88280 428 7 00000]0946z S3	M8, Spectre	FRI
12952kHz	0900z	06/12[167 834 5 88620 58069 61732 74537 57440 834 5 00000(s)] 0905z Fair CARRIERQRM3 QSB3	Spectre	THU
	0900z	13/12[167 834 5 88620 58069 61732 74537 57440 834 5 00000(s)] 0905z Fair CARRIERQRM3 QSB3	Spectre	THU
	0900z	20/12[167 298 5 34929 75293 57457 66476 54374 298 5 00000(s)] 0905z Fair CARRIERQRM3 QSB3	Spectre	THU
	0900z	27/12[167 298 5 34929 75293 57457 66476 54374 298 5 00000(s)] 0905z Fair CARRIERQRM3 QSB3	Spectre	THU
13565kHz	0910z	06/12[167 834 5 88620 58069 61732 74537 57440 834 5 00000(s)] 0915z Fair QRN3 QSB3	Spectre	THU
	0910z	13/12[167 834 5 88620 58069 61732 74537 57440 834 5 00000(s)] 0915z Fair QRN3 QSB3	Spectre	THU
	0910z	20/12[167 298 5 34929 75293 57457 66476 54374 298 5 00000(s)] 0915z Fair QRN3 QSB3	Spectre	THU
	0910z	27/12[167 298 5 34929 75293 57457 66476 54374 298 5 00000(s)] 0915z Fair QRN3 QSB3	Spectre	THU
14280kHz	1010z	05/12[729 863 5 16070 48834 53735 61088 02440 863 5 00000(s)] 1015z Fair QRN3 QSB2	Spectre	WED
	1010z	12/12[729 863 5 16070 48834 53735 61088 02440 863 5 00000(s)] 1015z Fair QRN3 QSB2	Spectre, ATC	WED
	1010z	19/12[729 416 5 96633 52537 53517 06675 41736 416 5 00000(s)] 1015z Fair QRN3 QSB2	Spectre	WED
	1010z	26/12[729 416 5 96633 52537 53517 06675 41736 416 5 00000(s)] 1015z Fair QRN3 QSB3	Spectre	WED

S11a[III]
Nov/Dec:

6433kHz	1020z	07/11 [224/38 27352 ... 37688] 1030z Fair QRN4 QSB3	Spectre	WED
	1020z	10/11 [224/38 27352 ... 37688] 1030z Fair QRN4 QSB3	Spectre	SAT
	1020z	14/11 [221/00] Konec 1023z S1	Malc	WED
	1020z	01/12 [221/00] Good	RNGB	SAT
	1020z	05/12 [228/31 28783 19989 72224 53087 67433…..38684] Fair	RNGB	WED
	1020z	19/12 [221/00]	RNGB	WED
	1020z	22/12 [225/34 04638 58485 28970 02529 80164…..34058] Good	RNGB	SAT
	1020z	26/12 [221/00] Good	RNGB	WED
	1020z	29/12 [221/00] Good	RNGB	SAT
7504kHz	0915z	02/11 [484/00]	RNGB	FRI
	0915z	06/11 [484/00]	RNGB	TUE
	0915z	13/11 [485/36 28515 76169 59376 51290 29383…..15649] Good	RNGB, Alex, Marco	TUE
	0915z	16/11 [485/36 28515 etc] repeat of Tuesday.	Alex, Marco	FRI
	0915z	23/11 [484/00] Strong	RNGB	FRI
	0915z	27/11 [484/00] Strong	RNGB	TUE
	0915z	30/11 [484/00] Konec 0918z S3	Malc	FRI
	0915z	04/12 [484/00]	RNGB	TUE
	0915z	07/12 [484/00] Good	RNGB	FRI
	0915z	14/12 [484/00] Konec 0918z S1	Malc	FRI
	0915z	18/12 [484/35 52811 22078 17109 13578 94686…..36649] Good	RNGB, Tony	TUE
	0915z	21/12 [484/00] 0918z Very Strong	Tony	FRI
	0915z	25/12 [484/00] Good	RNGB	TUE
	0915z	28/12 [484/34 02761 82354 19034 54028 89620…..81557] Fair	RNGB	FRI
9610kHz	1020z	06/11 [421/35 08729 40752 74805 50633 35229…..19426]	RNGB	TUE
	1020z	13/11 [426/00] Good	RNGB	TUE
	1020z	16/11 [426/00]	Alex	FRI
	1020z	27/11 [426/00]	RNGB	TUE
	1020z	30/11 [426/00] Konec 1023z S7	Malc	FRI
	1020z	04/12 [426/00] Good	RNGB	TUE
	1020z	07/12 [426/00]	RNGB	FRI
	1020z	18/12 [426/00]	RNGB	TUE
	1020z	21/12 [426/00] Good	RNGB	FRI
12530kHz	1015z	01/11 [475/00]	RNGB	THU
	1015z	05/11 [475/00] Konec1018z S1	Malc	MON
	1015z	08/11 [475/00]	RNGB	THU
	1015z	12/11 [471/36 42951 29884 64227 47786 07753…..22341] Good	RNGB, Ary	MON
	1015z	19/11 [475/00]	RNGB, Tony	MON
	1015z	22/11 [475/00]	RNGB	THU
	1015z	29/11 [475/00]	RNGB	THU
	1015z	03/12 [475/00]	RNGB	MON
	1015z	20/12 [475/36 39261 44359 27064 48842 91552…..06107] Good	RNGB	THU
	1015z	24/12 [475/00]	RNGB	MON
	1015z	27/12 [475/00] Good	RNGB, Marco	THU

S21
November2012

3323kHz1842z	06/11[323 248 32 41087 … 25665 248 32 000] 1853z QRN2 QSB2	HJH, ATC, RNGB	TUE
1842z	29/11[?????] Very Weak, could hear voice but unreadable	ATC	THU
3823kHz1842z	01/11[323 248 32 41087 ... 25665 000 000] Very strong signal, moderate/strong noise	FR	THU

323 248 32
41087 52398 39258 95970 23528
14959 51183 00449 75246 96356
91318 60575 76569 22431 34074
35615 11431 05065 49600 64796
58570 90792 51689 63067 72948
73918 42802 35122 34086 90508
81140 25665 000 000
Courtesy FR

December2012

3323kHz1842z	06/12[314.....] very weak	M8	THU
3823kHz1842z	06/12[314.....] very weak	M8	THU

S28
November2012

4582kHz1930z	13/11 [Harmonic] Weak QRN3 QSB3	Spectre	TUE
4667kHz1930z	13/11 [Harmonic] Weak QRN3 QSB3	Spectre	TUE

V02a

Pre-HM01 PoSW writes

Signals from the Spanish speaking lady from Cuba becoming stronger as we move into the winter season, and the audio has become noticeably better and easy to hear. Stays on UTC so now on one hour earlier local time now that summertime has ended and we are back on UTC in the UK.

30-Oct-12, Tuesday:- 0700 UTC, 5,883 kHz, “Atencion, 66752 70171 83411”. Audio somewhat low in relation to carrier strength.

2-Nov-12, Friday:- 0700 UTC, 5,883 kHz, “Atencion, 40221 53552 66871”. S9 signal with audio better than in recent times.

3-Nov-12, Saturday:- 0700 UTC, 5,883 kHz, “Atencion, 08812 12231 25560”. S8 with good audio.
0800 UTC, 5,898 kHz, not the same 5F call-up as earlier, “Atencion, 62711 75241 88562”
Early start, “62711” repeated and into 5Fs well before 0803z. Weaker signal than the 0700z transmission.

5-Nov-12, Monday:- 0700 UTC, 5,883 kHz, “Atencion, 12781 25211 38542”. S9 with good audio, the DRM station on the LF side weaker than usual.

6-Nov-12, Tuesday:- 0700 UTC, 5,800 kHz, starting up on the wrong frequency, “Atencion, 18252 32581 45812”. Didn't have time to see if there was a QSY to 5,883!

8-Nov-12, Thursday:- 0700 UTC, 5,883 kHz, “Atencion, 32702 43442 58552”. S9 signal with good audio. Looks as if the long standing low modulation problem has been fixed!

9-Nov-12, Friday:- 0700 UTC, 5,883 kHz, “Atencion, 64381 77622 80041”. S9 with, dare I say it, excellent audio!

10-Nov-12, Saturday:- 0800 UTC, 5,898 kHz, “Atencion, 88501 01231 14552”. Peaking S9+ with good audio.

11-Nov-12, Sunday:- 0729 UTC, 5,883 kHz, transmission in progress, missed start, ended after 0741 UTC with 3 x “Finale”.
0800 UTC, 5,898 kHz, “Atencion, 47881 51221 64642”, S8.

12-Nov-12, Monday:- 0700 UTC, 5,883 kHz, “Atencion, 52262 65602 88021”. peaking S9+ with excellent audio.

13-Nov-12, Tuesday:- 0700 UTC, 5,883 kHz, “Atencion, 71751 83172 06511”. S9, excellent audio, started exactly on the hour.

15-Nov-12, Thursday:- 0700 UTC, 5,883 kHz, “Atencion, 51821 64252 76571”, good signal.

16-Nov-12, Friday:- 0700 UTC, 5,883 kHz, “Atencion, 70852 83281 06612”.

17-Nov-12, Saturday:- 0700 UTC, 5,883 kHz, something unusual this morning, instead of the usual call – up routine the YL voice was speaking one 5F followed by about 30 seconds of some kind of data signal. “77571” at 0701z followed by the data signal, “27911” at 0701:30s, more data then “59151” at 0702z - and continued on in this way. Still carrying on in after this fashion when checked again at 0722z.
0800 UTC, 5,898 kHz, the same “one 5F group followed by half a minute of data signal” here. Still in this routine when checked again at 0830z but at approx 0842z went into normal 5F groups - but only for about three minutes then returned to 30s data mode. Was still going when I gave up at 0855z.

19-Nov-12, Monday:- 0700 UTC, 5,883 kHz, “Atencion, 72181 03821 16252”.

20-Nov-12, Tuesday:- 0700 UTC, 5,883 kHz, “Atencion, 14812 35542 41561”

22-Nov-12, Thursday:- 0700 UTC, 5,883 kHz, “Atencion, 14782 26111 30541”. “Never on a Wednesday” seems to be the rule with this 7 am. UK time schedule. Otherwise appears on every other day of the week and continues to be a strong signal with excellent audio. Makes you wonder if someone in Cuba read my comments in the last E2K Newsletter about the low modulation level making for difficult copy !

23-Nov-12, Friday:- 0700 UTC, 5,883 kHz, “Atencion, 78601 80331 03662”.

24-Nov-12, Saturday:- 0800 UTC, 5,883 kHz, starting up on the wrong frequency for 0800z, “Atencion, 56842 70271 83601” S9 signal with excellent audio. Vanished after 0803z in the middle of repeating “56842” prior to starting the first message and re-appeared on 5,898 kHz.

26-Nov-12, Monday:- 0700 UTC, 5,883 kHz, “Atencion, 61211 74632 87061”. Weaker signal than usual, S6 to S7.

29-Nov-12, Thursday:- no sign of V02a at 0700z this morning, not on 5,883, 5,898 or 5,800. I thought it was a Wednesday that was a rest day.

30-Nov-12, Friday, 0700 UTC, 5,883 kHz, “Atencion, 64741 75571 88812”, back as usual this morning although a bit weaker signal at S7.

2-Dec-12, Sunday:- 0800 UTC, 5,898 kHz, “Atencion, 44111 65841 61862”. Early start, call-up in progress when tuned in just before 0800z, “44111” repeated and into 5Fs after 0801z.

7-Dec-12, Friday:- 0658 UTC - started a couple of minutes before the hour - 5,883 kHz, “Atencion, 36351 40772 53111”. Continues to be a strong signal with excellent, deep modulation. Missed out on the 7 am V02 for most of this week, the sudden onset of winter with frost, snow, roads covered in ice and the knowledge that, due to the ongoing financial crisis, the authorities are cutting back on gritting and salting the roads this winter and at the same time reducing accident and emergency cover in the local hospitals dictated a more careful journey to work than usual and a fifteen minutes or so earlier start-out time! However, a few degrees above freezing this morning for the first time this several days.

8-Dec-12, Saturday:- no sign of V02a this morning at either 0700 or 0800 UTC on any of the frequencies used, i.e. 5,883, 5,898 and 5,800 kHz.

9-Dec-12, Sunday:- 0659 UTC, 5,883 kHz, back as usual this morning, “Atencion, 36722 48452 61771”. Started approx one minute before the hour, when tuned in just before 0658z was repeating “uno...uno..” over and over. Strong signal with excellent audio.
0759 UTC, 5,898 kHz, “36722 48452 61771”, as earlier, peaking S9+.

14-Dec-12, Friday:- no sign of V02a at 0700 UTC. First morning this week I have been at home at 0700z because this is the first frost – free morning this week, +3C outside - tropical!.

15-Dec-12, Saturday:- 0700 UTC, 5,883 kHz, “Atencion, 84482 17821 21241”. Early start, call – up in progress when tuned in at 0659z, “84482” repeated and into 5Fs after 0701z.
0800 UTC, 5,898 kHz, plain carrier only, no voice, monitored until 0805z when I gave up and went to listen to Garrison Keillor's Prairie Home Companion Radio Show which was just starting on BBC 4 Extra.

16-Dec-12, Sunday:- again, no sign of V02a at either 0700 UTC or 0800 UTC on any of the usual frequencies.

17-Dec-12, Monday:- no V02a found this morning at 0700.

18-Dec-12, Tuesday, 20-Dec-12, Thursday and 21-Dec-12, Friday :- no sign of the V02a YL
on these three days.

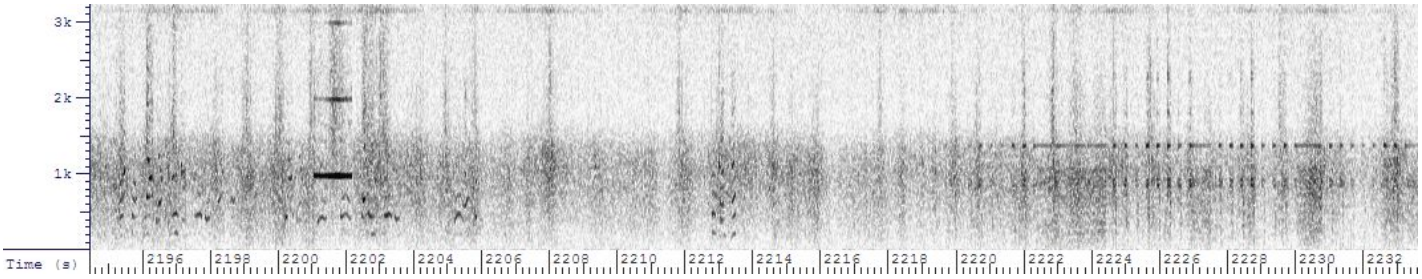
22-Dec-12, Saturday:- no sign of V02a at 0700Z this morning. It is starting to look as if the Señorita from Havana has given up!

And it looks as if the long-standing Spanish language number station V02a has ceased operation. Writing this in the last days of 2012 I have monitored monitored 5,883 kHz
and the other possible frequencies at 0700z just about every morning but have heard nothing since December 15th. And after they had gone to the trouble of fixing that long-standing low modulation problem too!
There was a story in the news earlier in the month that Cuba is in the process of making the first moves towards ditching communism and bringing in the early stages of a capitalist economy. I wonder if they have been told that if they want to be part of the Wall Street controlled New World Order then they must first wind down and terminate their intelligence-gathering networks in other Latin American countries, hence no need for V02a.

Now onto other’s logs

November2012

4028kHz 0110z	09/11[i/p] strong		gil	FRI
0100z	23/11[15431 28862 32281] Faded out @ 0119zend uk		Ggs	FRI
4035kHz 0407z	12/11[i/p] strong		gil	MON
4174kHz 0306z	12/11[i/p] strong		gil	MON
5417kHz0200z	23/11[15431 28862 32281] end 0242z		Ggs	FRI
5800kHz 0700z	06/11[] weak expected 5883		gil	TUE
5883kHz0700z	01/11[A14861 25601 48031] Strong		PLdn	THU
0700z	02/11[A40221 53552 66871 LG66n20 Finalé(R3)] 0541z Strong, noisy and fair at end	(41m20s)	PLdn	FRI
0700z	03/11[A08812 12231 25561 LG10864 Finalé(R3)] 0741z Strong	(41m26s)	PLdn	SAT
0700z	04/11[A 7 501 81 23] Weak, PLASMAQRM3		PLdn	SUN
0700z	05/11[A12781 25211 38542 LG6n1nn Finalé(R3)] 0742z Strong to start, weak at end.	(42m04s)	PLdn	MON
0704z	06/11 Late start, into msg 27613 470n1 33636 etc LG44583 Finalé(R3) 0742z Fair, QSB2	(38m04s)	PLdn	TUE
0700z	08/11[A32702 43442 58552 LG00735 Finalé(R3)] 0742z Strong, QRM2	(42m07s)	PLdn	THU
0700z	09/11[A64381 77662 80041 LG05766 Finalé(R3)] 0742z Strong	(42m02s)	PLdn	FRI
0700z	11/11[A47881 51221 64642] Strong QRM2		PLdn	SUN
0700z	12/11[A52262 65602 88021] into pulse train at 0736z Strong, QSB2/3 [*See below*]		PLdn, DanAr	MON



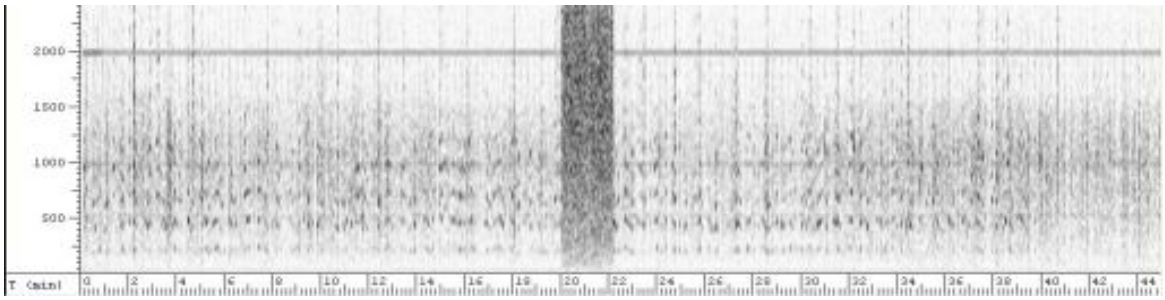
End of transmission 0736z 12/11 LG heard was: 43267 [tnx DanAr] then into pulse train

5883kHz	0700z	13/11[A71751 83172 06511 LG18162 Finalé(R3)] 0742z Fair, QRM3	(42m00s)	PLdn Spectre	TUE
	0700z	15/11[A51821 64252 76571 LG48073 Finalé(R3)] 0742z Fair, QSB3 *M12 QRM 0730 to 0732z*	(41m58s)	PLdn Spectre	THU
	0700z	16/11[A70852 83281 06612 LG54805 Finalé(R3)]0742z Very strong	(42m00s)	PLdn Spectre	FRI
	0700z	17/11 *See mixed mode in Round up*			
	0700z	18/11 *See mixed mode in Round up*			
	0700z	19/11[A72181 03821 16252 LG32613 Finalé(R3)] 0742z Strong	(41m58s)	PLdn, gil Spectre	MON
	0700z	20/11[A14812 35542 41561 LG25336 Finalé(R3)] 0742z Strong	(41m58s)	PLdn Spectre	TUE
	0700z	22/11[A14782 26111 30541 LG42777 Finalé(R3)] Strong	(41m56s)	PLdn Spectre	THU
	0700z	23/11[A78601 80331 03622 LG10657 Finalé(R3)] 0742z Strong, QRN2/3	(41m56s)	PLdn	FRI
	0700z	26/11[A61211 74632 87061 LG05006 Finalé(R3)] 0742z Fair, QSB3	(41m53s)	PLdn	MON
	0700z	30/11[A64741 75571 88812 LG01262 Finalé(R3)] 0742z Strong	(41m51s)	PLdn	FRI
5898kHz	0800z	01/11[A14861 25601 48031] Fair, QRN3		PLdn	THU
	0800z	02/11[A40221 53552 66871] Weak and noisy.		PLdn	FRI
	0800z	03/11[A66711 55641 88521] Weak and noisy		PLdn	SAT
	0800z	04/11 A and odd characters only. Weak and noisy		PLdn	SUN
	0800z	05/11[A12781 25211 38542 LG70016 Finalé(R3)] 0742z Strong to start, fair by end.	(42m10s)	PLdn	MON
	0802z	06/11[A18252 32581 45812 LG30332 Finalé(R3)] Late start, Strong	(40m04s)	PLdn	TUE
	0800z	08/11[A32702 43442 58552 LG56114 Finalé(R3)] 0842z Strong, QRM2 QSB2	(42m07s)	PLdn	THU
	0806z	09/11 Late start into msg LG54044 Finalé(R3) 0843z Strong, local QRM3 at start, weak by end.		PLdn	FRI
	0800z	10/11[A88501 01231 14552] Fair, QSB2		PLdn	SAT
	0800z	11/11[A47881 51221 64642 LG 38461]		DanAr	SUN
	0759z	12/11[A52262 65602 88021 LG 82066] 0841z Fair QRN3 QSB2		Spectre	MON
	0800z	13/11[A71751 83172 06511 LG73520 Finalé(R3)] 0842z Strong	(42m00s)	PLdn, DanAr	TUE
	0800z	15/11[A51821 64252 76571 LG55584 Finalé(R3)] 0842z Strong	(41m58s)	PLdn Spectre	THU
	0800z	16/11[A70852 83281 06612 LG36256 Finalé(R3)] 0842z Very strong	(42m00s)	PLdn Spectre	FRI
	0752z	17/11 *See mixed mode in Round up*			
	0800z	18/11 *See mixed mode in Round up*			
	0800z	19/11[A72181 03821 16252] strong		gil, DanAr Spectre	MON
	0814z	20/11 Late start…. Last Group 52572 Finalé(R3) 0842z Strong		DanAr,PLdn	TUE
	Spectre writes: got caught up in The Cuban Effect. Someone in Cuba failed to change frequencies at 0800z on 5898kHz for the second sending, and never changed to the correct frequency until 0812z. He was caught kipping on the job again, causing me to not hear the first message header. Thanks Pedro!)				
	0800z	22/11[A14782 26111 30541 LG63365 Finalé(R3)] Strong	(41m58s)	PLdn, Spectre	THU
	0800z	23/11[A78601 80331 03622 LG58851 Finalé(R3)] 0842z Strong, QRN3	(41m56s)	PLdn	FRI
	0804z	24/11[i/p 70271 83601 LG47034 Finalé(R3)] 0842z Fair		PLdn	SAT
	0800z	25/11[A48532 52862 65281] Fair, with noise		PLdn	SUN
	0800z	30/11[A64741 75571 88812 LG21554 Finalé(R3)] 0842z Strong	(41m51s)	PLdn	FRI
6768kHz	0100z	03/11[A46731 50252 73582] end 0141z		Ggs	SAT
	0411z	12/11[i/p] strong		gil	MON
6785kHz	2000z	29/11 in progress expected to be M08a on 7554kHz		Anon	THU
6855kHz	0322z	12/11[i/p] strong		gil	MON
9040kHz	0900z	07/11 end uk		Ggs	WED
12180kHz	1900z	29/11 In progress simultaneous with M08a 6785kHz		Anon	THU
13380kHz	2000z	20/11 end 2041z		Ggs	TUE

December 2012

4035kHz	0403z	10/12[i/p] fair		gil	MON
	0400z	24/12 weak signal		Anon	MON
4174kHz	0305z	10/12[i/p] weak		gil	MON
	0300z	24/12 found in progress		Anon	MON
5762kHz	0226z	01/12[i/p] strong		gil	SAT
	0200z	29/12 In progress poor modulation		Anon	SAT
5855kHz	0600z	10/12 missed callups.		Anon	MON
	0500z	14/12[A 81401 02231 23861] ended with 3 X Final. Carrier off ~ 0550z		Anon	FRI
	0504z	16/12[A81401 02231 23861 LG 26172 Finalé(R3)] 0545z Strong, started late	(40m28s)	PLdn	SUN

5883kHz	0700z	02/12[A44111 65841 61862 LG15588 Finalé(R3)] 0740z header twice only Strong, std 2mins early	(40m00s)	PLdn, gil	SUN
	0700z	03/12[A78071 82312 14632 LG47301 Finalé(R3)] 0740z std 2mins early. Strong	(39m55s)	PLdn	MON
	0700z	07/12[A36351 40772 53111 LG74103 Finalé(R3)] 0740z Strong	(39m54s)	PLdn	FRI
	0700z	09/12[A36722 48452 61771 LG53044 Finalé(R3)]0741z Very strong	(40m48s)	PLdn	SUN
	0700z	11/12[A11531 45602 58031 LG80300 Finalé(R3)] 0740z Very strong		PLdn	TUE
	0700z	13/12[A 27541 31782 44111 LG27451 Finalé(R3)] 0740z Fair, QRM3 Started early		PLdn	THU
5898kHz	0800z	02/12[A44111 65841 61862 LG63n81 Finalé(R3)] 0840z header once only Strong,QSB3 at end std 2mins early	(39m38s)	PLdn	SUN
	0800z	07/12/[A36351 40772 53111 LG67323 Finalé(R3)] 0840z Strong	(39m54s)	PLdn	FRI
	0750z	09/12[11111 (R4mins)] 0754z Very strong		PLdn	SUN
	0759z	09/12[A36722 48452 61771 LG 23822 Finalé(R3)] 0841z Very strong	(41m10s)	PLdn	SUN
	0809z	11/12[------ 45602 58031 LG36760 Finale(R3)] Strong, missed start.		PLdn	TUE



	0800z	13/12[A 27541 31782 44111 LG36346 Finalé(R3)] 0840z Strong, 2min break, see above	PLdn	THU
6768kHz	0135z	06/12[i/p] strong	gil	SAT
	0400z	10/12[A06731 10152 23481] strong	gil	MON
6785kHz	1900z	06/12. garbled, expected M08a on this frequency	Anon	THU
6855kHz	0330z	10/12[i/p] strong	gil	MON
10345kHz	0620z	14/12. Too weak to copy	Anon	FRI
	0600z	16/12[A 81401 02231 23861] very weak	WestUs	SUN
12180kHz	1030z	27/12 in progress	RNGB	THU
	1900z	27/12 Started as M08a in error	Anon	THU
13380kHz	2000z	27/12	Anon	THU
17480kHz	2140z	01/12 AM 5fg in progress No 9s, ended "Final Final Final" at 2145. Immediately began new callup "Atencion 31232-44561-57082," cut after a few repetitions, dropped carrier at 2148.	HS	SAT
	2100z	04/12[A 60831 73262 86682]	Anon	TUE
	2100z	06/12 in progress, very poor modulation	Anon	THU
17540kHz	2204z	01/12 AM 5fg in progress No 9s. Heard subsequent message preamble groups "44561" at 2215, "57082" at 2228, so undoubtedly the same message aired briefly on 17480. "Final Final Final" at 2241, one "Atencion," then hummy carrier which dropped at 2242.	HS	SAT
	2200z	06/12 A weak carrierpresent at 2200 suspect the secondary V02a	Anon	THU

V13
November2012

7688kHz	0700z	02/11: V13 having problems. Started at 0701 without tune and switched off after a few words	AB	FRI

December2012

7654kHz	0702z	26/12 V13 in progress	AB	WED
7654 kHz	0800z	26/12 V13 New Star #4. Tune + messages	AB	WED
7688kHz	0500z	26/12 V13 tune + messages	AB	WED
7688kHz	0600z	26/12 V13 tune + messages	AB	WED

V21

V21 "The Babbler" Usually a SS/OM counts upwards from 1 unless otherwise stated. He generally pauses at various points in the count before stopping and starting at 1 again.

V21 6529kHz 1400z 11/11 In progress too weak to copy
V21 6529kHz 1400z 16/11 SS/OM heard counting from 20 to 30 then too weak to copy
V21 6529kHz 1400z 21/11 In progress too weak to copy
V21 5637kHz 1400z 27/11 In progress too weak to copy except for one count from 20 to 30 TX lasted 17 minutes

V21 5637kHz 1414z 1/12 In progress very weak but one count from 1 to 12 heard. Ended after about 10 minutes
V21 5637kHz 1400z 2/12 In progress very weak TX lasted about 8 minutes.
V21 5637kHz 1400z 8/12 SS OM counting repeatedly to 42 becoming too weak to copy at at 1412z

V21 5637kHz 1400z 9/12 In progress too weak to copy.

V21 5637kHz 1402z 10/12 In progress very weak but occasional strong signal. Count to 50 heard at one point pausing on 11, 23 and 33. SS/OM yawns while counting at one point. (Must be boring reading out the same numbers over and over)

V21 5637kHz 1400z 11/12 In progress very weak
V21 5637kHz 1400z 12/12 In progress very weak
V21 5637kHz 1400z 13/12 In progress very weak
V21 5637kHz 1400z 14/12 In progress very weak
V21 5637kHz 1400z 15/12 In progress very weak
V21 5637kHz 1400z 16/12 In progress weak, some counts to 50 heard

V21 5637kHz 1400z 17/12 In progress very weak

V21 5637kHz 1400z 19/12 Weak, Count to ? pausing at 16, 26, 36. Count to 50 pausing at 22, 32, 36, 47. Count pausing at 14, 24 and 31 before becoming too weak to copy.

V21 5637kHz 1400z 20/12 8 minute TX Count to 60 pausing at 23, 44, Count to 74 pausing at 14, 40. Count to 40 pausing at 23. Count to 67 pausing at 33. Count to 46 pausing at 26. Count to 50 pausing at 23, 40. Count to 50 pausing at 23. Count to 51 pausing at 36. Count to 43 pausing at 23. Count to 14. Count to 33. Count to 26. End.

V21 5637kHz 1400z 21/12 Starts with uno uno uno uno. TX lasts 25 minutes but hard to follow. Counts to 52 pausing at `16,26,44. Count to 51 pausing at 24, 31,36,42 and 48. Count to 48 pausing at 11, 28, 32, 41, 46. Repeats uno uno uno uno at one point.

V21 5637kHz 1400z 22/12 In progress SS/OM counting to 31 with pauses at 12 and 22 fades, then heard counting 27 to 31

V21 5637kHz 1400z 23/12 In progress SS/OM Counting. Pauses on 22,32,42 restarts at 1, pauses on 22 and counts to 45. Count to 22 then 21 before fading. Then counts to 31 pausing on 12 and 22. Count to 5 END

V21 5637kHz 1400z 24/12 In progress very weak

V21 5637kHz 1411z 27/12 reasonable signal but hard to understand. Many counts to 22 and most counts not higher than 30.

V21 5637kHz 1415z 28/12 Much stronger signal than usual. Count to 32 pausing at 16, count to 25, count to 16, count to 25, count to 1, count to 2, count to 21, count to 6, count to 1, count from 14 to 17, count to 27 pausing at 15, count to 18, count to 41 pausing at 22, count to 26, count to 20, count to 25, count to 16, count to 14, count to 21. END. Transmission lasted 5 minutes.

5637kHz1400z	08/12[SS OM counting repeatedly to 42, becoming too weak to copy at 1412z]	Anon	SAT

V22

Great input from T here:

Heard what is very possibly V22 (might also be V25 I suppose) on 19260 kHz, USB, Dec 25, 2012, at 0211 and 0235 UTC. nickcarr heard it first and called it out in the #wunclub chat. I could only hear it via a remote located in Japan, there was no sign of it here locally.

The 0211 UTC transmission appears to have been a repeat of one that started right after 0200 UTC. I heard part of the 0200 UTC transmission but my recording of that one did not come out, too many knobs and I had the wrong record volume turned up. When the signal came back up at 0210 I did get a recording of it. It sounds essentially identical to the V22 example on the Numbers and Oddities web site. This appears to be a null message.

At 0235 UTC I heard another transmission on the same frequency. It apparently started before I heard it (possibly about 0230z) and I missed the callup, my recording starts in the message. The format was 4F R2 (4 figure groups, each repeated twice). This sounds to me like V25.

Recordings here:
http://erick_cartman.home.mchsi.com/Poss_V22_19260_U_12252012_0210_rem.mp3
http://erick_cartman.home.mchsi.com/Poss_V22_19260_U_12252012_0235_rem.mp3

I will be changing the recording locations later, will be moving them to YouTube as that is where I am keeping most of my recordings for public access over the long haul. More people seem to have access to that than some of the other options. When I get the video made I will add it to this post.

For the log:
Possible V22 19260 0211 25/12/12 [Null], remote tuner in Japan
Possible V22 19260 0235 25/12/12 [4F message], remote tuner in Japan

As I said, the 0211 UTC message sounded like the V22 example on Numbers and Oddities. But, in my opinion, the 0235 UTC sounded like the description of V25 in the ECL. I really think that the relationship of V22 and V25 (and possibly V16) should be looked at closer. I was not an E2K member when V16/V22/V25 was assigned and have no idea how many examples of each were available, but is it possible that V16, V22, and V25 are all the same station? I simply put this forward as a question for analysis, and am not suggesting changing anything at this time. I think more complete recordings are needed, if possible, for higher quality information.

That one confirmed by Ary

“V22 was again up tonight, this time on 18520 kHz USB. The 0200 time slot (actually started sometime after 0200) contained a message, not a null. The 0230 time slot (actual start time 0231:15) also contained a message.

Notice the 18520 kHz frequency. Two of the past reported freqs for this station were 10520 and 16520 kHz. Of course, it may not mean a thing, however in thepast 9+ months of watching V16 I have noticed that when they switch freqs for a given time slot they typically change the MHz digit, but not the 100, 10, or 1 kHz digit. i.e. 11147 kHz becomes 12147 kHz, etc. If we see this habit in V22 I would tend to think it supports V09, V16, V22, and V25 being from the same source, if not the same station with different headers.

Recordings of tonights transmissions on hand if anyone wants them, but they are not very high quality. Over the next week I will work on getting a high quality recording that includes the callup and the entire message.

Thanks T

Ary followed on with an interesting confirmation and historical information:

V22 was quite active between 2000 and 2003 and not reported after Sept.2009. Digital transmissions were heard on the scheduled times and freqs which led to the believe that the voice messages were replaced by digital transmissions.

V22 used to have skeds at 0000, 0030, 0100, 0630, 0730, 0900, 1300, 1330, 1400, 1430, 1500, 1530, 1730 and 2030 UTC.

V09 (Guangzhou) and V22 (Beijing) are sister stations. V25 is most likely another member of this net.
V26 and V27 are probably related but I don't think that they belong to the V22 net.
V25 has/had a morse sister MC01 and V26's morse sister is M95

Here is an example of V22:

- Callup:
"Quangou shoutingdai, Beijing hujiao" (All listening stations in the country, Beijing calling);

- Null-message:
"Quangou shoutingdai" (3x), "Beijing hujiao" (2x); (5 minutes)
"Xianzai mubao" (1x)
"Zaijian" (1x)

- Message:
"Quangou shoutingdai" (3x), "Beijing hujiao" (2x); (5 minutes)
"Xianzai youbao" (there is a message)." followed by a message number (2x) and group count (2x) "Yi shi i hao bao: - (number 12),
"I shi wu ge ji" (25 groups) followed by 4-figure groups. Groups are repeated. The message itself is repeated twice:
"Xing dzai chou bo dian bao" (1x) (repeat message now)
<message>
"Xing dzai chou bo dian bao" (1x) (repeat message now)
<message>
"May bao la" (1x) (end of transmission)
"Zaijian" (1x)

Thanks Ary

A V22 recording was also noted by GD:

19260kHz0155z 25/12 was recorded on a remote RX in Japan

http://home.comcast.net/~k7cj/19260.mp3

Audio as described in ECL

T writes, V22 continues to transmit. In addition to the to the 18520 kHz 0200 and 0230 transmissions already reported V22 also had transmissions on 17430 kHz, USB, at
0300 and 0400 UTC. I did check 0330 and 0430 also, but never saw anything. Actual start times were shortly after top of the hour, along the lines of 1 to 2 minutes after the hour.

For the log:

V22 17430 0301 26/12/12 [YL, CC, 4F]
V22 17430 0401 26/12/12 [YL, CC, 4F]

That makes the known schedule over the past two days (start times approximate):
Tuesday, 25/12/12, 0200 UTC, 19260 kHz, USB
Tuesday, 25/12/12, 0230 UTC, 19260 kHz, USB

Wednesday, 26/12/12, 0200 UTC, 18520 kHz, USB
Wednesday, 26/12/12, 0230 UTC, 18520 kHz, USB
Wednesday, 26/12/12, 0300 UTC, 17430 kHz, USB
Wednesday, 26/12/12, 0400 UTC, 17430 kHz, USB

V30
December2012

10225kHz1557z 21/12 Korean Numbers 1622z BR FRI
Msg sent three times 1557z, 1610z & 1614z with 1 min pause between each.

Polytones:
November2012

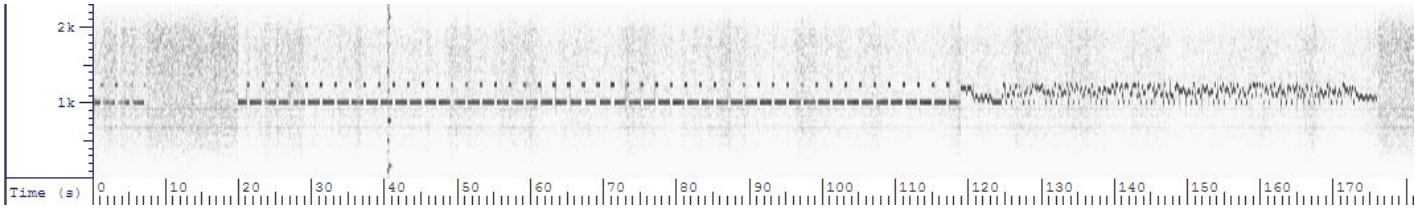
XPA2

Sun

10782kHz1720z	18/11[Caught I.P] 1722z Strong QRN2 QSB2		Spectre	SUN
12159kHz1710z	18/11[Caught I.P] 1712z Strong QRN2 QSB2		Spectre	SUN

Sun/Tue

18238kHz1300z	04/11[00326 00047 13732 31746] Very strong	(2m48s)	BR,PLdn	SUN
16238kHz1320z	04/11[00326 00047 13732 31746] Very strong	(2m48s)	BR,PLdn	SUN
14438kHz1340z	04/11[00326 00047 13732 31746] Very strong	(2m48s)	BR,PLdn	SUN
18238kHz1300z	06/11[00326 00047 13732 31746] Very strong	(2m48s)	PLdn	TUE
16238kHz1320z	06/11[00326 00047 13732 31746] Very strong	(2m48s)	PLdn	TUE
14438kHz1340z	06/11[00326 00047 13732 31746] Very strong	(2m48s)	PLdn	TUE
18238kHz1300z	11/11[00927 00061 21178 65110] Very strong	(2m56s)	PLdn	SUN
16238kHz1320z	11/11[00927 00061 21178 65110] Very strong	(2m56s)	PLdn	SUN
14438kHz1340z	11/11[00927 00061 21178 65110] Very strong	(2m56s)	PLdn	SUN



16238kHz1320z 13/11[00927 00061 21178 65110] Very strong, 12s break in header

18238kHz1300z	13/11[00927 00061 21178 65110] Very strong	(2m56s)	PLdn	TUE
16238kHz1320z	13/11[00927 00061 21178 65110] Very strong, 12s break in start. [*See above*]	(2m56s)	PLdn	TUE
14438kHz1340z	13/11[00927 00061 21178 65110] Very strong	(2m56s)	PLdn	TUE
18238kHz1300z	18/11[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
16238kHz1320z	18/11[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14438kHz1340z	18/11[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
18238kHz1300z	20/11[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
16238kHz1320z	20/11[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14438kHz1340z	20/11[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
18238kHz1300z	25/11[00263 00035 73064 20740]Very strong	(2m38s)	PLdn	SUN
16238kHz1320z	25/11[00263 00035 73064 20740]Very strong	(2m38s)	PLdn	SUN
14438kHz1340z	25/11[00263 00035 73064 20740]Very strong	(2m38s)	PLdn	SUN
18238kHz1300z	27/11[00263 00035 73064 20740] Strong	(2m38s)	PLdn	TUE
16238kHz1320z	27/11[00263 00035 73064 20740] Strong	(2m38s)	PLdn	TUE
14438kHz1340z	27/11[00263 00035 73064 20740] Strong	(2m38s)	PLdn	TUE

Mon/Wed

16073kHz0800z	07/11[00449 00157 66750 62653]		RNGB	WED
14973kHz0820z	07/11[00449 00157 66750 62653]		RNGB	WED
14373kHz0840z	07/11[00449 00157 66750 62653]		RNGB	WED
16073kHz0800z	12/11[00826 00049 51539 20006] Very strong	(2m48s)	PLdn	MON
14973kHz0820z	12/11[00826 00049 51539 20006] Very strong	(2m48s)	PLdn	MON
14373kHz0840z	12/11[00826 00049 51539 20006] Very strong	(2m48s)	PLdn	MON
16073kHz 0800z	14/11 NRH Poor HF propagation reported		PLdn	WED
14973kHz 0820z	14/11 NRH Poor HF propagation reported		PLdn	WED
14373kHz 0840z	14/11[00826 00049 51539 20006] Very weak	(2m48s)	RNGB	WED
16073kHz0800z	19/11[00518 00081 06811 62576] Very strong	(3m11s)	PLdn	MON
14973kHz0820z	19/11[00518 00081 06811 62576] Very strong	(3m11s)	PLdn	MON
14373kHz0840z	19/11[00518 00081 06811 62576] Very strong	(3m11s)	PLdn	MON
16073kHz 0800z	21/11 NRH Poor HF propagation reported		PLdn	WED
14973kHz 0820z	21/11 NRH Poor HF propagation reported		PLdn	WED
14373kHz 0840z	21/11 NRH Poor HF propagation reported		PLdn	WED
16073kHz0800z	26/11[04172 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14973kHz0820z	26/11[04172 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14373kHz0840z	26/11[04172 00001 00000 10140] Very strong	(2m11s)	PLdn	MON

16073kHz0800z	28/11[05182 00001 00000 10140] Strong	(2m11s)	PLdn	WED
14973kHz0820z	28/11[05182 00001 00000 10140] Strong	(2m11s)	PLdn	WED
14373kHz0840z	28/11[05182 00001 00000 10140] Strong	(2m11s)	PLdn	WED

Fri/Sat

17462kHz1400z	10/11[00574 00085 34879 65577]		RNGB	SAT
16114kHz1420z	10/11[00574 00085 34879 65577]		RNGB	SAT
14828kHz1440z	10/11[00574 00085 34879 65577]		RNGB	SAT
17462kHz1400z	16/11[00819 00071 53978 75634] Very strong	(3m05s)	PLdn	FRI
16114kHz1420z	16/11[00819 00071 53978 75634] Very strong, QRM2	(3m05s)	PLdn	FRI
14828kHz1440z	16/11[00819 00071 53978 75634] Very strong	(3m05s)	PLdn	FRI
17462kHz1400z	17/11[00819 00071 53978 75634] Very strong	(3m05s)	BR, RNGB	SAT
16114kHz1420z	17/11[00819 00071 53978 75634] Very strong	(3m05s)	BR, RNGB	SAT
14828kHz1440z	17/11[00819 00071 53978 75634] Strong	(3m05s)	BR, RNGB	SAT
17462kHz1400z	23/11[00836 00059 87831 14477] Very strong	(2m56s)	PLdn	FRI
16114kHz1420z	23/11[00836 00059 87831 14477] Very strong	(2m56s)	PLdn	FRI
14828kHz1440z	23/11[00836 00059 87831 14477] Very strong	(2m56s)	PLdn	FRI
17462kHz1400z	24/11[00836 00059 87831 14477] Very strong	(2m56s)	PLdn	SAT
16114kHz1420z	24/11[00836 00059 87831 14477] Very strong	(2m56s)	PLdn	SAT
14828kHz1440z	24/11[00836 00059 87831 14477] Very strong	(2m56s)	PLdn	SAT
17462kHz1400z	30/11[00350 00053 79066 61046] Very strong	(2m52s)	PLdn	FRI
16114kHz1420z	30/11[00350 00053 79066 61046] Very strong	(2m52s)	PLdn	FRI
14828kHz1440z	30/11[00350 00053 79066 61046] Very strong	(2m52s)	PLdn	FRI

December2012

Sun/Tue

14538kHz1300z	02/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
13538kHz1320z	02/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
12138kHz1340z	02/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14538kHz1300z	04/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1320z	04/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
12138kHz1340z	04/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14538kHz1300z	09/12[00474 00059 75550 07115] Strong	(2m55s)	PLdn	SUN
13538kHz1320z	09/12[00474 00059 75550 07115] Strong	(2m55s)	PLdn	SUN
12138kHz1340z	09/12[00474 00059 75550 07115] Strong	(2m55s)	PLdn	SUN
14538kHz1300z	11/12[00474 00059 75550 07115] Strong	(2m55s)	PLdn	TUE
13538kHz1320z	11/12[00474 00059 75550 07115] Strong	(2m55s)	PLdn	TUE
12138kHz1340z	11/12[00474 00059 75550 07115] Very strong	(2m55s)	PLdn	TUE
14538kHz1300z	16/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
13538kHz1320z	16/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
12138kHz1340z	16/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14538kHz1300z	18/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1320z	18/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
12138kHz1340z	18/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14538kHz1300z	23/12[00774 00093 27896 43257] Fair, break in preamble	(3m24s)	PLdn	SUN
13538kHz1320z	23/12[00774 00093 27896 43257] Fair	(3m24s)	PLdn	SUN
12138kHz1340z	23/12[00774 00093 27896 43257] Strong	(3m24s)	PLdn	SUN
14538kHz1300z	25/12[00774 00093 27896 43257] Very strong	(3m24s)	PLdn	TUE
13538kHz1320z	25/12[00774 00093 27896 43257] Very strong	(3m24s)	PLdn	TUE
12138kHz1340z	25/12[00774 00093 27896 43257] Very strong	(3m24s)	PLdn	TUE
14538kHz1300z	30/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
13538kHz1320z	30/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
12138kHz1340z	30/12[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN

Mon/Wed

15861kHz0800z	03/12[00706 00125 15216 70425] Very strong		RNGB	MON
14761kHz0820z	03/12[00706 00125 15216 70425] Very strong		RNGB	MON
13561kHz0840z	03/12[00706 00125 15216 70425] Very strong		RNGB	MON
15861kHz0800z	05/12[00706 00125 15216 80426] Very strong	(3m46s)	PLdn	WED
14761kHz0820z	05/12[00706 00125 15216 80426] Very strong	(3m46s)	PLdn	WED
13561kHz0840z	05/12 NRH		PLdn	WED
15861kHz0800z	12/12[00820 00060 47716 75344] Very strong	(2m56)	PLdn	WED
14761kHz0820z	12/12[00820 00060 47716 75344] Very strong	(2m56)	PLdn	WED
13561kHz0840z	12/12[00820 00060 47716 75344] Strong	(2m56)	PLdn	WED

15861kHz0800z	17/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14761kHz0820z	17/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
13561kHz0840z	17/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
15861kHz0800z	19/12[05182 00001 00000 10140] Fair	(2m11s)	PLdn	WED
14761kHz0820z	19/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
13561kHz0840z	19/12[05182 00001 00000 10140] Weak	(2m11s)	PLdn	WED
15861kHz0800z	24/12[00372 00173 84232 10774] Very strong	(4m23s)	PLdn	MON
14761kHz0820z	24/12[00372 00173 84232 10774] Very strong	(4m23s)	PLdn	MON
13561kHz0840z	24/12[00372 00173 84232 10774] Very strong	(4m23s)	PLdn	MON
15861kHz0800z	26/12[00372 00173 94232 10774] Very strong	(4m23s)	PLdn	WED
14761kHz0820z	26/12[00372 00173 94232 10774] Very strong	(4m23s)	PLdn	WED
13561kHz0840z	26/12[00372 00173 94232 10774] Very strong	(4m23s)	PLdn	WED
15861kHz0800z	31/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14761kHz0820z	31/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
13561kHz0840z	31/12[05182 00001 00000 10140] Very strong	(2m11s)	PLdn	MON

Fri/Sat

15967kHz1400z	08/12[07586 00001 00000 10140] Fair	(2m11s)	PLdn	SAT
13884kHz1420z	08/12[07586 00001 00000 10140] Fair	(2m11s)	PLdn	SAT
12217kHz1440z	08/12[07586 00001 00000 10140] Strong	(2m11s)	PLdn	SAT
15967kHz1400z	14/12[00330 00097 99741 73744]Fair	(3m25s)	PLdn	FRI
13884kHz1420z	14/12[00330 00097 99741 73744]Fair	(3m25s)	PLdn	FRI
12217kHz1440z	14/12[00330 00097 99741 73744]Fair	(3m25s)	PLdn	FRI
15967kHz1400z	15/12[00330 00097 99741 73744]Strong	(3m25s)	PLdn	SAT
13884kHz1420z	15/12[00330 00097 99741 73744]Strong	(3m25s)	PLdn	SAT
12217kHz1440z	15/12[00330 00097 99741 73744]Fair	(3m25s)	PLdn	SAT
15967kHz1400z	21/12[00911 00109 24651 15346] Strong	(3m38s)	PLdn	FRI
13884kHz1420z	21/12[00911 00109 24651 15346] Strong	(3m38s)	PLdn	FRI
12217kHz1440z	21/12[00911 00109 24651 15346] Strong	(3m38s)	PLdn	FRI
15967kHz1400z	22/12[00911 00109 24651 15346] Very strong	(3m34s)	PLdn	SAT
13884kHz1420z	22/12[00911 00109 24651 15346] Fair	(3m34s)	PLdn	SAT
12217kHz1440z	22/12[00911 00109 24651 15346] Very strong	(3m34s)	PLdn	SAT
15967kHz1400z	28/12[00702 00075 61554 24174] Very strong	(3m10s)	PLdn	FRI
13884kHz1420z	28/12[00702 00075 61554 24174] Very strong	(3m10s)	PLdn	FRI
12217kHz1440z	28/12[00702 00075 61554 24174] Very strong	(3m10s)	PLdn	FRI
15967kHz1400z	29/12[00702 00075 61554 24174] Very strong	(3m10s)	PLdn	SAT
13884kHz1420z	29/12[00702 00075 61554 24174] Very strong	(3m10s)	PLdn	SAT
12217kHz1440z	29/12[00702 00075 61554 24174] Very strong	(3m10s)	PLdn	SAT

Ten Minute schedules, no schedule plots, in date order.

12156kHz 1610z	06/12 [In Progress] 1613z Fair QRN3 QSB2		Spectre	THU
10188kHz 1620z	06/12 [In Progress] 1623z Strong QRN2 QSB2		Spectre	THU
12156kHz 1610z	11/12 NRH Freq possibly too low nt 1kHz		PLdn	TUE
10188kHz 1620z	11/12 Msg, base tones on 2kHz, too high to copy, fell outside filter. Change freq to 10187kHz		PLdn	TUE
17422kHz1200z	21/12[02354 00092 59475 67142]	(3m21s)	RNGB	FRI
16263kHz1210z	21/12[02354 00092 59475 67142]	(3m21s)	RNGB	FRI
15804kHz1220z	21/12[02354 00092 59475 67142]	(3m21s)	RNGB	FRI
8167kHz0810z	26/12[01909 00133 40660 45501]		RNGB	WED
7811kHz0820z	26/12[01909 00133 40660 45501]		RNGB	WED
17422kHz1200z	27/12[05062 00099 11396 11656]	(3m25s)	RNGB	THU
16263kHz1210z	27/12[05062 00099 11396 11656]	(3m25s)	RNGB	THU
15804kHz1220z	27/12[05062 00099 11396 11656]	(3m25s)	RNGB	THU
15888kHz1510z	27/12[04605 00149 81341.....50645	(4m05s)	RNGB	THU
14696kHz1520z	27/12[04605 00149 81341.....50645	(4m05s)	RNGB	THU

Digital, Incursions and Unexplained Signals

Digital, Incursions and Unexplained Signals

Its been another busy couple of months for FSK200/1000 research. I must admit that my progress with this had unfortunately stalled having looked at raw decodes for what seemed like weeks I wasn't spotting any further patterns in the messages. Thankfully at this point I received an offer of help from a group member we shall call Anon who asked that I pass on some raw messages to him. Within days of receiving those messages he spotted something very interesting.

To illustrate this let me first explain that each FSK200/1000 data block contains 288 bits or 36 bytes (each byte is made up of 8 bits) I number these blocks from 0 to 35. Below I am going to show you bytes 14 to 16 from block number one of four messages with the value of the bytes being in hexadecimal.

First a couple of messages sent on 11th December 2012 ..

Byte Number	14	15	16
Time 17:00	**0x56**	**0x00**	**0x0e**
Time 21:00	**0xb6**	**0x00**	**0x0e**

Next another couple of messages sent at the same times on 18th December 2012 ..

Byte No	14	15	16
Time 17:00	**0x5b**	**0x00**	**0x04**
Time 21:00	**0xbb**	**0x00**	**0x04**

Note how on the 11th December messages the lower 4 bits of byte 14 are both 0x6 and the lower 4 bits of byte 16 are both 0xe. If we put these together in hexadecimal we get 0x6e which converted to decimal is 110 (so the date x10). If we look at the 18th December messages the lower 4 bits of byte 14 combined with the lower 4 bits of byte 16 are 0xb4 or 180 in decimal (again the date x 10). When I checked this value in other four block messages I found it was the same as the date the message was transmitted. So if the message was sent on the 1st of the month this value is 10 , the 5th of the month 50 etc. This is OK up to the 25 of the month but an 8 bit byte can only hold values up to 255 (0xff) and the 26th of the month would be 260 which couldn't be encoded in this way. So all that happens is that the lower 8 bits of the number are used with the 9th bit being ignored. Using this method the 26th of the month is encoded as 40 , the 27th as 14 , 28th as 24 , 29th as 34 , 30th as 44 and finally the 31st as 55.

What we found was that 4 block messages always had the date on which they were sent. But longer messages had earlier dates. So I presume this date is the date the message was written not when it was transmitted. It also confirms that 4 block messages sent in this mode are null messages. Some of the messages do seem to be a few days old. So for instance the message sent at 09:00 on 16th December is dated the 13th. While the 11:00 message sent on 1st December was dated the 30th. This suggests a couple of things to me.

1 That we are missing at least one schedule for both these messages. If a message is dated the 13th you expect it to have been sent first on the 14th or 15th.

2 That these messages are being automatically sent and due to the age of them possibly being sent blind so in other words the recipient is unable to signal back immediately that they have received the message.

Anon also spotted another interesting pattern. To illustrate this I will show you a section of the block 1s from a couple of the Sunday 15:30 schedule messages and a the same information from a couple of Tuesday 22:00 schedule messages ..

Byte No	14	15	16	17	18	19	20
9th Dec 15:30	**0x55**	**0x00**	**0x0a**	**0x0b**	**0x16**	**0x0f**	**0x54**
16th Dec 15:30	**0x5a**	**0x00**	**0x00**	**0x0a**	**0x16**	**0x03**	**0x54**
11th Dec 22:00	**0xb6**	**0x00**	**0x0e**	**0x0d**	**0x00**	**0x04**	**0x12**
18th Dec 22:00	**0xbb**	**0x00**	**0x04**	**0x0e**	**0x00**	**0x01**	**0x12**

If you look at the table you notice that the high 4 bits of byte 14 and the high 4 bits of byte 20 are the same in both messages sent in the same time slot. Putting these together into a single byte we see that both 15:30 messages are 0x55 and both 22:00 messages are 0xb1. When we looked at the 11:00 Saturday/Sunday messages we found this value was always 0x92. Now initially Anon speculated that this byte was a time indicator. However then looking at other schedules I discovered that some of them shared the same value. So as mentioned the Sunday 15:30 schedule is 0x55 but so is the Tuesday 17:00 schedule. This set me thinking that this byte is most likely a part of the recipient identifier encoded into each message. The final confirmation of this theory came on Sunday 11th November 2012 when the 15:30 slot which had always up to that point sent 4 block messages sent a 37 block message. Then the following Tuesday the 17:00 schedule which had also up to that point always sent a 4 block message sent a 38 block message. This appears to me an added confirmation that this is some kind of an address indicator rather than a message time. Looking back into my logs I found that the various short lived schedules I had found in the past such as the Monday 17:30/40/50 which was last heard in September , the Wednesday 17:30/40/50 schedule which was last heard in July and the Friday 17:00/10/20 schedule last heard in October all had the same value for this byte which was 0x00.

So rather than identifying the circuits by time with letters as I was doing previously I believe we can identify them by this byte.

Byte	1st Sending	2nd Sending	3rd Sending	Comment
0x00	**?**	**?**	**?**	**Short Lived Schedules**
0x55	**Sunday 15:30/40/50**	**Monday 15:30/40/50**	**Tuesday 17:00/10/20**	**Low Traffic usually 4 block messages.**
0x8f	**Tuesday 14:00/10/20**	**?**	**?**	
0x92	**Weekends 11:00/10/20**	**?**	**?**	**Heard in Europe , USA and Australia.**
0xb0	**Monday 12:00/10/20**	**Wednesday 12:00/10/20**	**?**	
0xb1	**Alternate Weekends 10:00/10/20**	**Tuesday 22:00/10/20**	**?**	**The 10:00 schedule carries on message a month. The 22:00 is usually a 4 block.**
0xba	**Two Weekends a month 09:00/10/20**	**?**	**?**	
0xbb	**Two Weekends a month 09:00/10/20**	**?**	**?**	

So you can see from the table above and from the previous mention of the message dates we appear to be missing several schedules for this mode. This is interesting as a week ago I received an email from expert group monitor Hans-Friedrich who was passing along information he had received from a German group member Frank who has been looking at this mode for quite a while. He has identified several other FSK200/1000 schedules I would very much like to find the frequencies for and to identify. Remember it is quite possible that some of these schedules were short lived ones that have gone now but I expect most of them will still be with us ..

Day of Week	Transmission Times
Tuesday	**23:00/10/20**
Wednesday	**07:00/10/20**
Wednesday	**15:30/40/50**
Friday	**06:00/10/20**
Friday	**07:00/10/20**

So if you happen to have the chance to monitor on these days and times I would be very grateful if you could email the group with what you find. Remember though these schedules may not transmit weekly but could only transmit on alternate weeks or perhaps even once a month.

My thanks to Hans-Friedrich and Frank for passing on that information.

The known FSK200/500 schedules (currently Thursday at 20:00/10/20 and Saturday 13:00/10/20) continue in operation but only sending their usual null messages. However group regular Peter came across an interesting transmission on 24th December 2012 at 10:18 on 14391 KHz. This was a station sending similar traffic as we have seen from FSK200/500 but it had a data rate of 187 baud and had just 1 stop bit instead of this modes usual 1.5. Peter speculates that this transmission comes from the same organisation that is behind FSK200/500 and I agree. It will be interesting to see if there are any schedules for this variant of the mode.

Please note that this month Github who I use to host the free Rivet decoder project changed their policies and removed the download page. So from now you can download the very latest version of Rivet from the following website ..

http://borg.shef.ac.uk/rivet/

However the source code repository is still located at Github ..

https://github.com/IanWraith/Rivet

My thanks to everyone who has helped with the research into these fascinating digital stations over the last few months.

Items of Interest in the Media:-

Silly sailor gets eight years porridge:- In a case that reminded some of the events of the days of the Cold War a member of the Queen's Navy recently found himself up before the judge on espionage related charges. "Traitor passed on Navy secrets to Russians" - although they weren't really - is the headline over a story in the *Metro* newspaper of 14-November,
and says, "A Royal Navy submariner faces jail after trying to hand over top-secret information to the Russian secret service.
Petty Officer Edward Devenney was caught in a MI5 sting - the Russian agents he met to pass on the movements of nuclear submarines were really British spies, a court heard.
The 30-year-old contacted an 'enemy' embassy last November offering to pass on code breaking technology as well as confidential information on British submarines.
Some of the information included a top-secret operation by HMS Trafalgar and sailing dates for other nuclear submarines. The court heard that Devenney, who had been in the Navy for eleven and a half years, held a grudge against his bosses after being denied a promotion and tried to pass secrets to the enemy 'to hurt the Navy'.
In January he met 'enemy agents' to pass on information. He was arrested at a naval base in Plymouth in March.
At the Old Bailey yesterday, Devenney, of Northern Ireland, admitted breaching the Official Secrets Act by gathering details on encryption programmes and a misconduct in public office charge.
He was remanded in custody and could be jailed for up to 14 years when he is sentenced next month".

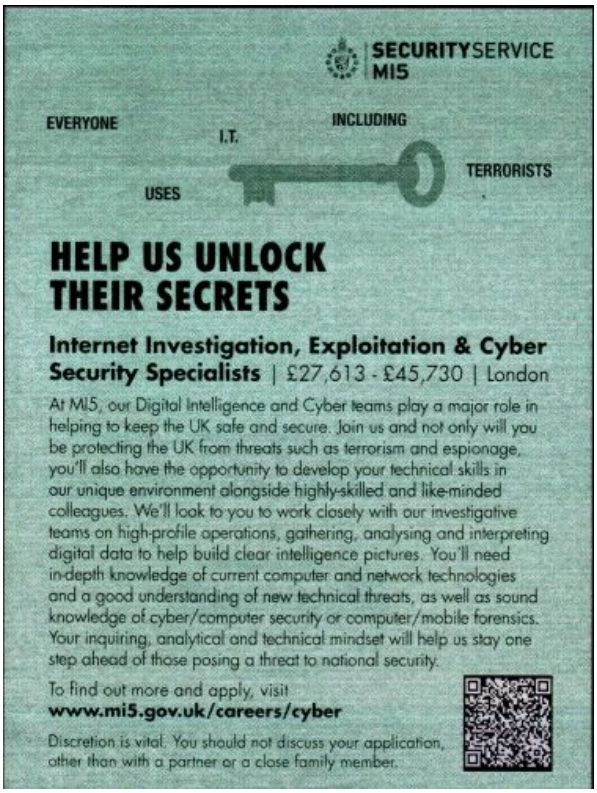
And it was subsequently widely reported, on 12-December, that Petty Officer Devenney was sentenced to eight years in prison. Since in the UK prison terms are cut in half unless the judge directs otherwise, and there was no indication in this case that he did so, that means he serves four years maximum less time for good behaviour; board and lodging all found, regular meals, no council tax to pay, what's not to like?

Tension still ratcheting up in Persian Gulf:- the long expected attack on the Islamic Republic of Iran has not yet taken place - but the sabre rattling goes on. The *I* newspaper of 3-November carried a piece by Oliver Wright, Whitehall Editor headlined "UK to meet Gulf leaders over Iranian oil fears" which said, "The British Government is to hold discussions with senior officials in the Gulf about the threat posed by Iran to Middle East oil supplies.
Leaders in Saudi Arabia and the United Arab Emirates are increasingly concerned in case there are attempts by the Iranians to block the Strait of Hormuz, the waterway through which 40 per cent of the world's oil supplies are shipped.
Britain has mine-sweeping Navy vessels in the Gulf region and *I* revealed yesterday that David Cameron is considering stationing war planes in the Persian Gulf amid rising tension in the region.
It is understood that the Government is keen to reassure its Gulf allies that they would have Britain's full diplomatic and military backing should tensions with Iran escalate.
The Prime Minister's spokesman yesterday said that any deployment of UK Euro fighter Typhoons to a base in Abu Dhabi would be purely for training purposes. 'There are routine deployments that have been going on for many years, ' he said.
But the arrival of British aircraft is bound to fuel the Iranian sense of insecurity even if there are assurances that the move is not aimed at them.
The Israeli defence minister, Ehud Barak, in London with Iran as the main topic of discussion, is said to be 'fully aware' and supportive of the discussions over the war planes.
The Ministry of Defence said: 'We have a mutual interest with our Gulf partners in ensuring peace and stability in the region, and exercises such as this allow us to practice working together.
The UK has carried out two exercises with the United Arab Emirates, one involving Euro fighter Typhoons, and the other with Tornado GR4s.

James Bond visits the Front Line, or at least the actor playing the current incarnation of Ian Flemming's hero does. "007 reports for duty in Afghanistan surprise trip", is the headline in an item in the *Metro* newspaper of 19-November and says, "Bond star Daniel Craig headed off on a mission to Afghanistan - to surprise troops as they watched his latest film.
He turned up to introduce Skyfall to the audience of about 800 soldiers, sailors and airmen at Camp Bastion.
The actor, well used to varied modes of travel in his role as the all-action super-spy, then had a tour of the camp in a Foxhound armoured car.
And he kept his eye in ahead of the next blockbuster by firing machine guns on the heavy weapons range.
'We get quite a lot of visitors here but having James Bond was special', said Warrant Officer Class One Rob Ingham, who drove him.
'He seemed to be pretty comfortable when he got into the driving seat' RAF Sergeant Dave Hammond said: 'It was great to be able to see the film here and to have James Bond himself to introduce it was brilliant.'
Craig met soldiers at the camp, which is home to about 30,000 people, and he got to see some of the training they do before deploying to forward operating bases.
He also met staff and patients at the Bastion Role Hospital and watched a demonstration of how to search for Improvised Explosive Devices.
He tried out mine detectors and was taught some skills soldiers use to find roadside bombs."

Naughty goings-on at Langley, Virginia – no harm done, says Mr. President; or at least, that is the sense of an article in the *Metro* of 15 – November on the subject of the Central Intelligence Agency's main man's lively social activities. "Obama: CIA spymaster's sex life isn't a security risk" is the headline and says, "Barack Obama yesterday said the sex scandal surrounding the US military command had not compromised national security.
It was his first comment since the controversy surrounding the former CIA head Gen David Petraeus, his mistress, an Army general and a married mother of three came to light.
Mr Obama said: 'I don't think at this point that classified information was disclosed that in any way had compromised national security. There is an ongoing investigation and I don't want to compromise that investigation.'
Mr Obama also paid tribute to the former spymaster.
'Gen Petraeus had an extraordinary career and served his country with distinction in Iraq and Afghanistan and as head of the CIA,' he added.
The FBI is investigating abusive e-mails sent to Jill Kelley by Paula Broadwell warning her to 'back off' Gen Petraeus.
Ms Broadwell, 40, was having an affair with the spymaster, 60, who resigned when the affair emerged.
Investigators have found 30,000 pages of 'flirty' e-mails between Ms Kelley and Gen John Allen, the new commander in Afghanistan. Ms Kelley, 37, and her husband Scott are also reported to be battling lawsuits with banks worth £2.5 million as they struggle to keep up payments on their Florida lifestyle.
Both generals were said to have testified for her twin sister Natalie Khawam, who was declared bankrupt this year with debts of £2.5 million, in a bitter custody battle.
US secretary of state Hillary Clinton said the scandal had been discussed with allies in Afghanistan but 'no concern whatsoever has been expressed to us because the mission has been set forth and it's being carried out' ."

Gizza Job [if you're a graduate or likely to become one]



^ ^ ^ ^ ^

Whilst I was photographing this on a railway station I was joined by an official wearing a Hi-Vis jacket and carrying a radio.
"You can't take photographs!"
"Why not?"
"Because I said not!"
"Who are you?" *No answer, obviously a jobsworth….*
"If you continue I'll call the police."
"Go on then; In fact F..k Off whilst you're at it, will you?"
"You'll regret that."
"Do one mate, go on, hoppit....."

I slowly finished what I was doing and got on my train ten minutes later. Next day I saw the official: A Ticket Collector! I said ‘Good Evening’ but he didn’t seem interested.
Britain is now full of officious pricks with Hi Vis Jackets and radios and I’m mightily fed up with the idiots who assume an authority they’re not fit to carry trying to tell others what to do.

MI6 told agent it couldn't kill al-Qaeda leader 'because assassinations are a breach of British law'
By Martin Robinson

http://www.dailymail.co.uk/news/article-2242287/MI6-told-agent-kill-al-Qaeda-leader-assassinations-breach-British-law.html

An MI6 agent who managed to infiltrate al-Qaeda in a bid to kill one of its leaders was told by his British bosses they would not assassinate him because it could be against the law.

Terrorist Anwar al-Awlaki was encouraging attacks on the West and also recruiting young Muslims to carry them out but despite being able to murder him Morten Storm was blocked by London, it has emerged.

Storm says he was told by his bosses in the UK: 'We do not involve ourselves in encouraging people to participate in jihad and we don’t involve ourselves in killings abroad. Our objective is to gather intelligence.'

Claims: MI6 spy Morten Storm could have killed terrorist leader Anwar al-Awlaki but Britain said no, he says

British secret services then cut Storm off completely when he approached the Americans instead, he has claimed.

A source told the Daily Telegraph that no spy can kill anyone without permission from the Foreign Secretary.

Advice says 'Lethal force' can only be used in those circumstances in an 'emergency or crisis which causes danger to the UK or its citizens' - which means it has not been used for decades, the source added.

The CIA went on to assassinate al-Awlaki in a drone attack because he was known to have preached to the 9/11 hijackers and his videos were found across Britain in terrorist homes and in an extreme bookshop used by the 7/7 attackers.

Made for each other? Storm says he conducted an exchange of videos between Awlaki and Aminah, in which they talked about her becoming his third wife

Storm and al-Awlaki, who was a U.S. citizen and lived in the UK for two years, became so close he was offered $250,000 by the CIA to find a wife for Awlaki - who already had two - in an effort to track him down.

To do this, Storm turned to Facebook, and found 'Aminah' - who said she was a fan of Awlaki.

He then orchestrated an exchange of video messages between the two, and - despite an assassination order on Awlaki from the U.S. - they agreed to marry.

But while successful in its early stages, the rest of the CIA's plot was thwarted.

Storm suffered a troubled childhood, drifting through drugs and into crime.

In 1997, the Dane said that he converted in prison to Islam and upon leaving moved to Yemen to study the Koran.

He added that in 2000 he married a Yemeni woman with whom he had a son named Osama.

It is understood in 2006, he had a dramatic and unexplained change of heart and was turned double agent by the Danish intelligence service, PET.

After five years, Storm claimed to have worked his way to the top of al-Qaeda in the Arabian Peninsula's inner circle and gained direct access to al-Awlaki.

Awlaki, who was born in New Mexico, had become the lead figure for al-Qaeda and the offshoot al-Qaeda in the Arabian Peninsula in the years after Osama bin Laden went into hiding.

Before his death, he was believed to be responsible for persuading Nigerian terrorist Omar Farouk Abdulmuttalab to conceal explosives in his underwear which he tried to use to blow up a Detroit-bound plane on December 25th, 2009.

He also played a role in the 2009 Fort Hood massacre and the failed plot by Faisal Shahzad to detonate an SUV filled with explosives on May 1, 2010.

The CIA plan he orchestrated, Morton says, was to plant a tracking device on Aminah's luggage when she came to Yemen to meet her new husband - which would lead the agency directly to Awlaki's hideout.

In a video appearing on the site of Danish newspaper Jyllands-Posten, she said: 'I would go with him anywhere. I am 32 years old and I am ready for dangerous things. I’m not afraid of death or to die in the sake of Allah.'

Croatian Aminah, who used to work with disabled children in Zagreb, also adds: 'I feel nervous. This is very awkward for me. I just taped this so you can see how I look.'

In his reply, Awlaki - who had specifically requested a white Muslim convert to be his 'companion in hiding' - said: 'If you can live in difficult conditions, do not mind loneliness and can live with restrictions on your communication with others, then that is great.'

He also mentions an associate, purported to be Storm, saying: 'The brother who is carrying this video is a trustworthy brother.'

The pair exchanged encrypted video messages, with Awlaki saying in one: 'I currently do not live in a tent, but in a house [that] belongs to a friend. I'm not leaving the house and am in a situation for my wife to be with me all the time. I prefer this residence [to] a tent in the mountains because it gives me ability to read, write and research.'

At a meeting in Vienna, Austria, Storm showed Aminah a video recording made by Awlaki, who was dressed in white robes in front of a pink background with a floral motif.

In it he says: 'This recording is done specifically for Sister Aminah at her request. I pray Allah guides to that which is best for you in this life and in the hereafter. And guides you to choose what is better for you regarding this proposal.'

Storm said Aminah burst into tears when after watching the video.

http://www.dailymail.co.uk/news/article-2242287/MI6-told-agent-kill-al-Qaeda-leader-assassinations-breach-British-law.html
I don't fancy Morten Storm's chance of further employ as an MI6 officer, and perhaps his safety is also breached?

From sci-fi to reality: The computer-blitzing drone that can cripple a nation's electronics at the touch of a button
By Ben Ellery

PUBLISHED: 22:01, 1 December 2012 | UPDATED: 14:45, 3 December 2012
http://www.dailymail.co.uk/sciencetech/article-2241525/The-Boeing-blitzing-drone-cripple-nations-electronics.html

Down the years and across the universe, the heroes of science-fiction classics from Dan Dare to Star Wars and The Matrix have fought intergalactic battles with weapons that wipe out enemy electronics at the touch of a button.

Now scientists have turned fantasy into reality by developing a missile that targets buildings with microwaves that disable computers but don't harm people.

Aircraft manufacturer Boeing successfully tested the weapon on a one-hour flight during which it knocked out the computers of an entire military compound in the Utah desert.

Aircraft manufacturer Boeing has successfully tested a missile which knocked out an entire military compound in the Utah desert

Pre-programmed filghtpath: Aircraft manufacturer Boeing has successfully tested a missile which knocked out an entire military compound in the Utah desert

It is thought the missile could penetrate the bunkers and caves believed to be hiding Iran's suspected nuclear facilities. But experts have warned that, in the wrong hands, the technology could be used to bring Western cities such as London to their knees.

During Boeing's experiment, the missile flew low over the Utah Test and Training Range, discharging electromagnetic pulses on to seven targets, permanently shutting down their electronics.

Boeing said that the test was so successful even the camera recording it was disabled.

Codenamed the Counter-Electronics High Power Microwave Advanced Missile Project (CHAMP), it is the first time a missile with electromagnetic pulse capability has been tested.

For security reasons, Boeing declined to release film of the test, but instead issued an artist's impression of it on video. In the clip, a stealth aircraft deploys a missile that emits radio waves from its undercarriage which knock out the computer systems inside the buildings below.
The missile is launched from a stealth bomber and is thought to be able to penetrate the bunkers and caves believe to be hiding Iran's suspected nuclear facilities

Stealth mission: The missile is launched from a stealth bomber and is thought to be able to penetrate the bunkers and caves believe to be hiding Iran's suspected nuclear facilities

The company did release real film showing a row of computers that can be seen shutting down when the electromagnetic pulse is switched on.

Although the project is shrouded in secrecy, experts believe the missile is equipped with an electromagnetic pulse cannon. This uses a super-powerful microwave oven to generate a concentrated beam of energy which causes voltage surges in electronic equipment, rendering them useless before surge protectors have the chance to react.

Keith Coleman, CHAMP programme manager for Boeing's prototype arm Phantom Works, said the technology marked 'a new era in modern warfare'.
Drones

He added: 'In the near future, this technology may be used to render an enemy's electronic and data systems useless even before the first troops or aircraft arrive.

'We hit every target we wanted and made science fiction into science fact. When the computers went out, it actually took out the cameras as well. It was fantastic.'

The project has cost £24 million and has been developed on behalf of the US Air Force Research Laboratory following a request from the Pentagon four years ago.

Lead test engineer Peter Finlay said: ‘We’re not quite at the place where the Star Trek and Star Wars movies are but this is definitely an advancement in technology able to give us an opportunity to do things we could not do before.’ James Dodd, vice-president of Advanced Boeing Military Aircraft, said there was a real need for a weapon that could knock out a target but not cause harm to people and structures.

He said: ‘We know this has capabilities and impact. We’re trying to see if we can get it implemented sooner rather than later.’

However, experts fear that the project could create an arms race, with countries scrambling to build their own electromagnetic pulse weapons.

Wiped out: Boeing's film shows computers before (left) and after (right) the attack by the drone but experts have warned that, in the wrong hands, the technology could be used to bring Western cities such as London to their knees

Professor Trevor Taylor, Professorial Fellow at the Royal United Services Institute, said the Western world would be much more vulnerable to such an attack because of our increased reliance on electronics. He added: ‘This is a challenging area in political and military terms. Ideally there would have been an arms-control agreement to cover this field, because once technology is actually developed, control becomes harder.

‘The historical record shows that important technologies developed in one country are developed elsewhere within a relatively short period – look what happened with regard to the USSR and nuclear weapons.

‘Should the US be known to have developed such a technology to the production stage, it would drive others to try to act similarly.

‘Western countries are more dependent on electronics-based IT than others and would be vulnerable to extensive disruption.’

http://www.dailymail.co.uk/sciencetech/article-2241525/The-Boeing-blitzing-drone-cripple-nations-electronics.html

'Dad's Army' of cyber security experts to be formed to tackle growing threat of website hackers in Britain
By Martin Robinson

PUBLISHED: 09:59, 4 December 2012 | UPDATED: 10:02, 4 December 2012
http://www.dailymail.co.uk/news/article-2242716/Dads-Army-cyber-security-experts-formed-tackle-growing-threat-website-hackers-Britain.html

A Home Guard inspired Dad's Army of computer security experts will be set up to protect Britain's businesses and help the armed forces at times of national emergency, it has emerged today.

These 'reservists' will work alongside a new team of internet boffins who had helped the Government protect the UK from cyber attack during last summer's Olympics.

Official figures show that 90 per cent of all big business in Britain was attacked online in 2011 - costing them at least £250,000 each.
Security: Inspired by the Home Guard shown in Dad's Army - the Government is forming a team of reservists to protect Britain's businesses and armed forces from cyber attack

Security: Inspired by the Home Guard portrayed in Dad's Army - the Government is forming a team of reservists to protect Britain's businesses and armed forces from cyber attack

Online industries are worth £82billion a year to Britain, so Cabinet Office minister Francis Maude has announced the measures to protect those that 'suffer at the hands of such threats'.

As part of the plan the Ministry of Defence will set up a 'cyber reserve' it could bring in when it needed help.

While three universities: De Montfort University, the University of Worcester and Queens University Belfast, will be used to train their students in computer security to form the next generation of British cyber guardians.

'We are constantly examining new ways to harness and attract the talents of the cyber security specialists that are needed for critical areas of work,' Mr Maude said in a written answer to Parliament.

Home Secretary Theresa May wants security services to be able to snoop on email and internet records, but Nick Clegg is seeking to delay the Communications Data Bill

'To this end, the MoD is taking forward the development of a ‘cyber reserve’, allowing the services to draw on the wider talent and skills of the nation in the cyber field.'

The Dad's Army idea is 'currently in development', he said, adding: 'Working with the private sector to improve awareness of the need for better cyber security continues to be a priority'.

Water and power firms in particular are being targeted by foreign countries launching cyber attacks against Britain.

The services ‘upon which daily life depends’ risk being disrupted by hackers working for the UK's enemies, officials claimed.

Internet terrorism from ‘hostile foreign states’ is now one of the top four threats Britain faces.

The scale of the problem comes as Home Secretary Theresa May stepped up her call for more powers to track email and internet use.

She claimed people will ‘die’ without more powers to track terrorists, paedophiles and criminals online.

A major Coalition split was laid bare as Mrs May took a swipe at Lib Dem leader Nick Clegg for blocking new internet powers to break up criminal plots on sites like Facebook and Skype.

The £2billion law – dubbed a snoopers charter - would store billions of pieces of private information from emails, Facebook, texts and internet use.

In a thinly-veiled swipe at her Cabinet colleague, Mrs May said opponents of her legislation are 'putting politics before people's lives'.
Mrs May said opponents of her Communications Data Bill had to 'look victims of terrorism in the eye', like those caught up in the 7/7 London bombings

Mrs May said opponents of her Communications Data Bill had to 'look victims of terrorism in the eye', like those caught up in the 7/7 London bombings

Mr Clegg wants to delay the Communications Data Bill until 2014 to strike a balance between security and liberty'.

But Mrs May said: 'The people who say they're against this bill need to look victims of serious crime, terrorism and child sex offences in the eye and tell them why they're not prepared to give the police the powers they need to protect the public.
What the Bill means to you

'We would certainly see criminals going free as a result of this. There will be paedophiles who will not be identified and it will reduce our ability to deal with this serious organised crime,' she told The Sun.

Mrs May suggested the new laws were needed to prevent a repeat of the 7/7 London bombings or the shootings of two female police officers in Manchester in September.

'The shootings of Nicola Hughes and Fiona Bone brought everybody up sharp to show the extent of the problem that can be caused by criminals.

'It would be harder for us to crack into organised crime gangs, and yes we could see people dying as a result of not being able to have access to this information.'

She went on: 'Criminals, terrorists and paedophiles will want MPs to vote against this bill.

'Victims of crime, police and the public will want them to vote for it. It's a question of whose side you're on.'

However, a committee of MPs and peers is expected to issue damning criticism of the measures this week, arguing ministers have not made the case that is really needed.

The Home Office insists the proposed storage of website visits for 12 months, along with use of Skype and even online games consoles, will protect national security.

Without it, police and the security services will lose their ability to track the activities of crime gangs and paedophiles over time, they argue.
Cyber attacks have been launched against the supplies 'upon which daily life depends,' including power firms

Cyber attacks have been launched against the supplies 'upon which daily life depends,' including power firms

Officials warn that new technology will allow terrorists to hatch plots or swap sickening images. Gaps in coverage already mean the authorities have no access to a quarter of all communications data.

The plans would cover when and to whom a phone call was made, not what was said. The content of emails would also not be stored, just details of who sent and received them.

http://www.dailymail.co.uk/news/article-2242716/Dads-Army-cyber-security-experts-formed-tackle-growing-threat-website-hackers-Britain.html

Top secret MI6 counter-terror intelligence feared stolen by disgruntled Swiss IT worker who walked out with millions of data files in backpack
By Becky Evans and James Slack
PUBLISHED: 17:23, 4 December 2012 | UPDATED: 07:50, 5 December 2012

http://www.dailymail.co.uk/news/article-2242921/Top-secret-MI6-counter-terrorism-intelligence-feared-stolen-disgruntled-Swiss-IT-worker-walked-millions-data-files-backpack.html#ixzz2EACY8lDM

MI6 intelligence on counter- terrorism operations may have been stolen by a rogue Swiss official, it emerged last night.
Security chiefs in the UK have been warned that hugely sensitive information they provided to the NDB, Switzerland's spy agency, could have been 'compromised'.
Hundreds of thousands of pages of classified documents were copied by a senior IT technician for the NDB, which he then copied for himself on to portable storage devices carrying them away in a backpack.

Swiss officials believe the suspect intended to sell the stolen data and have alerted both MI6 and America's CIA.
The information was shared between Britain, Switzerland and the United States and the CIA has also been warned about the risk.
The technician, whose name has not been made public, was arrested by Swiss authorities last summer.
He was later released from prison while a criminal investigation by the office of Switzerland's Federal Attorney General continues.
A European security source said it is believed the IT worker became disgruntled when he felt his advice on operating the data systems was not being taken seriously.
The technician downloaded hundreds of thousands, or even millions, of printed pages of classified material from the Swiss intelligence service's servers onto portable hard drives.

He then carried them out of government buildings in a backpack.
Investigators now believe warning signs were missed in the months leading to his arrest.
The source said that the suspect became so disgruntled earlier this year that he stopped showing up for work.

He worked for the NDB - or Federal Intelligence Service, which is part of Switzerland's Defense Ministry - for about eight years.
He was described by one source as a 'very talented' technician.
The worker also had 'administrator rights', which gave him unrestricted access to most or all of the NDB's networks, including those holding vast caches of secret data.
Swiss investigators seized portable storage devices containing the stolen data after they arrested the suspect.
The information was impounded before he had an opportunity to sell it.
However, Swiss investigators could not be positive he did not manage to pass any of the information on before his arrest.
Representatives of U.S. and British intelligence agencies had no immediate response to detailed queries about the case submitted by news agency Reuters.
Swiss Attorney General Michael Lauber and a senior prosecutor, Carolo Bulletti, announced in September they were investigating the data theft and its alleged perpetrator.
A spokeswoman for the attorney general said she was prohibited by law from disclosing the suspect's identity.
A spokesman for the NDB said he could not comment on the investigation.
Security procedures and structures at the NDB, which was set up relatively recently, have now come under increased scrutiny.
It conducts both foreign and domestic intelligence activities for the Swiss government.

Human resources staff are currently linked within the organisation to the agency's information technology division.
This potentially made it difficult or confusing for the subdivision's personnel to investigate themselves, the source said.
Despite warning signs, Swiss news reports say the NDB did not realise something was amiss until the largest Swiss bank, UBS, expressed concern to authorities about a potentially suspicious attempt to set up a new numbered bank account, which then was traced to the NDB technician.
A Swiss parliamentary committee is now conducting its own investigation into the data theft and is expected to report next spring. Investigators are known to be concerned that the NDB lacks investigative powers, such as to search premises or conduct wiretaps, which are widely used by counter-intelligence investigators in other countries.
News of the theft of intelligence data surfaced with Switzerland's reputation for secrecy and discretion in government and financial affairs already under assault.
Swiss authorities have been investigating, and in some cases have charged, whistleblowers and some European government officials for using criminal methods to acquire confidential financial data about suspected tax evaders from Switzerland's traditionally secretive banks.
One source said the CIA and MI6 routinely shared data on counter-terrorism and other issues with the NDB.
The greatest danger would be the leaking of any information which could identify British agents or operations, though there is no suggestion this has happened.

http://www.dailymail.co.uk/news/article-2242921/Top-secret-MI6-counter-terrorism-intelligence-feared-stolen-disgruntled-Swiss-IT-worker-walked-millions-data-files-backpack.html#ixzz2EACY8lDM

Va. Beach man accused of attempted espionage
Credit: Steve Earley / The Virginian-Pilot

Robert Patrick Hoffman II, a 20-year veteran who retired last year as a petty officer first class, leaves U.S. District Court in Norfolk on Thursday, December 6, 2012. Hoffman is accused of believing he was passing secret information "pertaining to methods to track submarines" to the Russians, according to a federal indictment that was unsealed today.

Associated Press and 13News
Posted on December 6, 2012 at 2:25 PM
Updated Thursday, Dec 6 at 7:35 PM

http://www.wvec.com/news/military/Va-Beach-man-accused-of-attempted-espionage-182406091.html

NORFOLK (AP) -- A former Navy sailor has been indicted by a federal grand jury for attempted espionage.

39-year-old Robert Patrick Hoffman of Virginia Beach was arrested on Thursday.

According to the indictment, Hoffman attempted to deliver classified documents in October 2011 to someone he believed was a representative of the Russian Federation.

The indictment says Hoffman actually delivered the information to the FBI, which was conducting an undercover operation.

The indictment states he tried to provide "information classified as SECRET that revealed and pertained to methods to track U.S. submarines, including the technology and procedures required, with intent and reason to believe that such information was to be used to the injury of the United States and to the advantage" of the Russian Federation, explained Peter Carr, spokesman for the US Attorney-Eastern District.

Carr says law enforcement officers conducted searches at Hoffman's home and storage facility. No information has been released released as to the findings.

One of Hoffman's Virginia Beach neighbors, Lynn Williams, describes him as "different."

"He is just kind of weird. He's not neighborly. He just isn't. One time my husband was out tilling up the front yard and he came over and asked if he could watch him," said Williams.

Hoffman, who was born in Buffalo, N.Y.. served in the Navy for 20 years before he retired in November, 2011.

The U.S. Attorney's office says Hoffman held security clearances that granted him access to classified and national defense information relating to programs and operations in which he participated, and he repeatedly signed agreements to not disclose that sensitive information.

He faces up to life in prison if convicted.

http://www.wvec.com/news/military/Va-Beach-man-accused-of-attempted-espionage-182406091.html

Has World War II carrier pigeon message been cracked?
By Anna Browning BBC News

http://www.bbc.co.uk/news/uk-20749632

An encrypted World War II message found in a fire place strapped to the remains of a dead carrier pigeon may have been cracked by a Canadian enthusiast.

Gord Young, from Peterborough, in Ontario, says it took him 17 minutes to decypher the message after realising a code book he inherited was the key.

Mr Young says the 1944 note uses a simple World War I code to detail German troop positions in Normandy.

GCHQ says it would be interested to see his findings.
Blocks of code

The message was discovered by 74-year-old David Martin when he was renovating the chimney of his house in Bletchingley, Surrey.

Among the rubbish, he found parts of a dead pigeon - including a leg, attached to which was a red canister. Inside the canister was a thin piece of paper with the words "Pigeon Service" at the top and 27 handwritten blocks of code.

The message - which attracted world-wide media attention - was put in the hands of Britain's top codebreakers at GCHQ at the beginning of November, but they have been unable to unlock the puzzle.

IS THIS WHAT IT MEANS?

AOAKN - Artillery Observer At "K" Sector, Normandy
HVPKD - Have Panzers Know Directions
FNFJW - Final Note [confirming] Found Jerry's Whereabouts
DJHFP - Determined Jerry's Headquarters Front Posts
CMPNW - Counter Measures [against] Panzers Not Working
PABLIZ - Panzer Attack - Blitz
KLDTS - Know [where] Local Dispatch Station
27 / 1526 / 6 - June 27th, 1526 hours

They remain convinced the message is impossible to decrypt, although a spokesman said they would be happy to look at Mr Young's proposed solution,.

"We stand by our statement of 22 November 2012 that without access to the relevant codebooks and details of any additional encryption used, the message will remain impossible to decrypt," he said.

"Similarly it is also impossible to verify any proposed solutions, but those put forward without reference to the original cryptographic material are unlikely to be correct."

However, Mr Young, the editor of a local history group, Lakefield Heritage Research, believes "folks are trying to over-think this matter".

"It's not complex," he says.

Using his great-uncle's Royal Flying Corp [92 Sqd-Canadian] aerial observers' book, he said he was able to work out the note in minutes.

He believes it was written by 27-year-old Sgt William Stott, a Lancashire Fusilier, who had been dropped into Normandy - with pigeons - to report on German positions. Sgt Stott was killed a few weeks later and is buried in a Normandy war cemetery.
'WWI trainer'

The code is simple, relying heavily on acronyms, said Mr Young.

Some 250,000 pigeons were used during the war by all services and each was given an identity number. There are two pigeon identification numbers in the message - NURP.40.TW.194 and NURP.37.OK.76. Mr Young says Sgt Stott would have sent both these birds - with identical messages - at the same time, to make sure the information got through.

"Essentially, Stott was taught by a WWI trainer; a former Artillery observer-spotter. You can deduce this from the spelling of Serjeant which dates deep in Brits military and as late as WWI," he said.

"Seeing that spelling almost automatically tells you that the acronyms are going to be similar to those of WWI.

"You will see the World War I artillery acronyms are shorter, but, that is because, you have to remember, that, the primitive radio-transmitters that sent the Morse code were run by batteries, and, those didn't last much more than a half-hour tops, probably less.

"Thus all World War I codes had to be S-n-S, Short-n-Sweet.

"And, as you can clearly see, Stott got a major report out on a pigeon."
http://www.bbc.co.uk/news/uk-20749632

At first I thought this credible, after a lot of thought I think its total bollocks. I think a more capable method is used that certainly doesn't use ad hoc acronyms.

The acronym theory is good but I'm not totally convinced. I suspect the sender and recipient used something similar to Bentley's Phrase Code as I said.

I have a copy here and I've looked up the alpha groups but there's no matches. However something near [on right of pigeon code] as an example only:

- **AOAKN -** AOBJO Have you any.....?
- **HVPKD -** HVEWI Trouble
- **FNFJW -** FNIYF Telegraph what you have done
- **DJHFP -** DJEIP If you expect to charter
- **CMPNW -** COBGI By 27th of this month
- **PABLIZ -** PAHBA Considerable progress
- **KLDTS -** KRUUZ German lines

My groups can also be shown as numerals: 04110 32100 25228 14625 11960 62092 44671

Decoded using the Phrase Code the message would read:

"Have you any trouble? Telegraph what you have done if you expect to charter by 27th of this month. Considerable progress with German Lines," which to me is a better message than that suggested by our Cunuck Alpha Cruncher - and based on proven methods.

The book I used is dated 1936 so a little nearer the theatre than 1915 and no supposition. [In fact no bollocks either]!

I think this method fits better. The BBC were informed in answer to the Canadian nonsense but there was no reply. And GCHQ? How on earth do you inform them, I wonder?

PLEASE NOTE:

Permanent changes have occurred wthin the Charts section.

These changes have been made at the request of the donating member and for the good of the ENIGMA2000 Group.

As a result the affected charts:

Family 1a History and Predictions,

Family 1b [E07]

and

S06s Regular Schedule

Will be available only to participating members within the File Section of Group

As a result of gross changes to the remaining Cuban Morse and Voice schedules and the new mixed mode it is no longer possible to produce those schedules.

A tentative Mixed Mode schedule is available on pages 34 and 35 of this newsletter.

Chart Section Index

1. Logging Abbreviations Explained

2. European Number Systems

3. Prediction Chart

4. M01, M01b and M45 Schedules

5. M12

6. Family III

7. G06

8. XPA Polytone Schedules

Logging Abbreviations explained.

The ENIGMA 2000 Standard logging should take this form without any personalised abbreviations:

E07 10436kHz 1740z 07/06[414 1 563 102 92632 … 09526 0 0 0 0 0 0] 1753z Fair QRM2 QSB2 PLdn SUN

Station:	E07	[Traits of stations in ENIGMA Control List]
Freq:	kHz	[As above 10436kHz]
Time:	z	[Always 24hour clock, 'z' states GMT/UTC]
Date:	day/month [As above 7th June]	
Msg detail:	Varies with station	
	ID taken from 100kHz fig in freqs:	414 [freqs used in this schedule were 13468, 12141 and 10436kHz]
	Msg count	1
	Dk [decode key]:	563
	Gc [group count]:	102
	First group of msg:	92632
	Text between grps:	…
	Last group:	09526 [where more than one group is stated the use of LG ahead group indicates 'Last Group.']
	Ending:	0 0 0 0 0 0
	Time msg ends:	1753z
	Received signal strength assessment:	Fair
	Noise	QRM2
	Fading to signal	QSB2
Monitor:	PLdn	
Day heard:	SUN	
Unknown:	unk	
Repeat:	R	[which can be expanded to mean]:
Repeated :	R5m [repeated 5 mins]; R5s[repeated 5seconds], R5x [Repeated 5 times]	

Received signal strength assessment.

Some receivers possess 'S' meters that give a derived indication of signal strength caused by changes within that receiver. Calibration may, or may not be accurate and the scale, may or may not, be the same as that on other receivers. Some receivers have no meter yet produce acceptable results.

Therefore we prefer the quality of the signal to be assessed by the particular monitor.

Guidance for this can be sought from the Q code:

QSA What is the strength of my signals (or those of...)?
The strength of your signals (or those of...) is...
1) scarcely perceptible.
2) weak.
3) fairly good.
4) good.
5) very good.
[QSA1 S0 to S1; QSA2 S1 to S3; QSA3 S3 to S6; QSA4 S6 to S9; QSA4 S9 and above]

Sooner than put a numerical value we state: Very Weak, Weak, Fair, Strong or Very Strong.

Noise, Static and Fading.

Again guidance from the Q code:

Noise:

QRM Are you being interfered with?
I am being interfered with
1) nil
2) slightly
3) moderately
4) severely
5) extremely.

Note: in the sample the monitor has stated QRM2 which means 'slight noise'; had the interference been from a broadcast station you might have read 'BC QRM2' and so on.

Static [Lightning and other atmospheric disturbance]:

QRN Are you troubled by static?
I am troubled by static
1) nil
2) slightly
3) moderately
4) severely
5) extremely.

Fading [Propagational disturbance]

QSB Are my signals fading?
Your signals are fading
1) nil
2) slightly
3) moderately
4) severely
5) extremely.

Note: in the sample the monitor has stated QSB2 which means 'slight fading' where the received signal obviously fades but the message is still intelligible.

The use of QRM1, QRN1 and QSB1 is not expected; if there is no such aberration to the signal it need not be stated.

Day Abbreviation

Self explanatory: SUN, MON, TUE, WED, THU, FRI, SAT

Mode used in transmission

Generally the mode of transmission is not stated, being available in the ENIGMA Control List. Should the expected mode change then this can be stated as: CW [Carrier Wave] MCW[Modulated Carrier Wave] ICW [Interrupted Carrier Wave] generally associated with Morse transmission; AM [Amplitude Modulation], LSB [Lower Sideband], USB[Upper Sideband] generally associated with Voice transmission.

Languages used

The ident of a station generally states the language in use, E [English], G[German] S [Slavic], V[All other languages].

Non voice stations

M [Morse and TTY] SK [Digital modes] X [Other modes]

Ideally we would like to see logs offered in our standard format allowing the editorial staff to process the results quickly rather than having to manually re-format. Anyone submitting logs should refrain from using their own abbreviations or shortening our abbreviations eg. Su Mo Tu etc.

See a correct example below which is now self explanatory:

V02a 5883kHz 0700z 06/06[A63752 57781 31521] Fair QRN2 end uk PLdn SAT

And the incorrect version:

V2a 5883k 07:00 06/06/2009 A/63752- 57781- 31521 S3 PLdn SA

Additional Info:

Own station idents should not be used.

When an unidentifiable station is submitted please supply the obvious details:

Freq, Time start and end, Date, Message content, particularly preamble and message content and ending. Language details are helpful, particularly any strange pronunciations.

Other details about stations can be found in the ENIGMA Control List available from Group files or sent when you joined.

NUMBER SYSTEMS

European Numbers sytems:

English	**zero**	**one**	**two**	**three**	**four**	**five**	**six**	**seven**	**eight**	**nine**
Bulgarian	nul	edín	dva	tri	chétiri	pet	shest	sédem	ósem	dévet
French	zero	un	deux	trois	quatre	cinq	six	sept	huit	neuf
German^	null	eins	zwei	drei	vier	fünf	sechs	sieben	acht	neun
Spanish	cero	uno	dos	tres	cuatro	cinco	seis	siete	ocho	nueve
Czech	nula	jeden	dva	tr^i	chtyr^i	pêt	shest	sedm	osm	devêt
Polish	zero	jeden	dwa	trzy	cztery	pie,c'	szes'c'	siedem	osiem	dziewie,c'
Romanian	zero	unu	doi	trei	patru	cinci	s,ase	s,apte	opt	nouâ
Slovak*	nula	jeden	dva	tri	shtyri	pät'	shest'	sedem	osem	devät'
* West	nula	jeden	dva	try	shtyry	pet	shest	sedem	ossem	devat
* East	nula	jeden	dva	tri	shtyri	pejc	shesc	shedzem	osem	dzevec
Serbo-Croat	nula	jèdan	dvâ	trî	chètiri	pêt	shêst	sëdam	ösam	dëve:t
Slovene	nula	ena	dva	tri	shtiri	pet	shest	sedem	osem	devet
Russian	null	odín	dva	tri	chety're	pyat'	shest'	sem'	vósem'	dévyat'

^ Some German numerals have a radio accent and totally in keeping with German armed forces The numbers in question are:

2 ZWEI pronounced as TSWO

5 FUNF pronounced as FUNUF, poss hrd as a fast TUNIS

9 NEUN pronounced by some as NEUGEN

A peculiar pronunciation of three DREI, has crept into G11 transmissions, heard as ‘ZYNCE’ the ‘Y’ as in eye.

Numeral Systems used on selected Slavic Stations [*those discontinued in italics*]

	Actual Polish[S11]	**S11a Cherta**	**S11 Kreska**	**S10d**	**S17c**
0	zero	nul	zero	Nula*	Nula*
1	jedynka	adinka	yezinka	Jeden^	Jeden^
2	dwójka	dvoyka	dvonta	dva	dva
3	trójka	troyka	troika	tri ‘	tri ‘
4	cztery	chetyorka	chidiri	shytri	shytri
5	piˈtka	petyorka	peyonta	pyet	pyet
6	szeœæ	shest	shes	shest	shest
7	siedem	syem	sedm	sedoom	sedoom
8	osiem	vosyem	osem	Osoom~	Osoom~
9	dziewie,c'	dyevyet	prunka	devyet	devyet

Notes on Numeral Systems used on selected Slavic Stations:

* Nula heard as ‘nul’

^ Jeden heard as ‘Yedinar’

‘ Tri heard as ‘she’

~ Osoom often heard as ‘bossoom’ or ‘Vossoom.’

Arabic Numerals [E25 and V08]

English	zero	one	two	three	four	five	six	seven	eight	nine
	0	1	2	3	4	5	6	7	8	9
Arabic	sifr	wahid	itnien	talata	arba	khamsa	sitta	saba	tamanya	tissa
	٠	١	٢	٣	٤	٥	٦	٧	٨	٩

Chinese Number System:

[*Particular attn to Yi/Yao pse*].

0	Ling	Zero
1	Yi/Yao	One (It appears there is a radio version of Yao. On the telephone it is pronounced Yi; also heard in V16)
2	Er	Two
3	San	Three
4	Si	Four (The number four in Chinese is always unlucky, because it sounds the same as the word for death which is also pronounced 'Si' but with a different tone).
5	Wu	Five
6	Liu	Six
7	Qi	Seven
8	Ba	Eight
9	Jiu	Nine

Shi	Ten	Ba	One Hundred	Wan	One Thousand

Chinese numeral construction:

For example:

San	Three
San Shi	Thirty. In English they are saying Three and Ten.
San Shi Jiu	Thirty Nine. In English they are saying Three, Ten and Nine.
San Bai	Three Hundred. In English they are saying Three and One Hundred.
San Wan	Three Thousand. In English they are saying Three and One Thousand.

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
x							0430/0450/0510		M12	01B	4457/ 5157/ 417, search	4617/ 5317 638, search
x							0450		E11	03	5082 416/00	5082 416/00
		x					0530/0540		S06S	01A	9435,11075 153	9435,11075 153
			x				0530/0550/0610		E07A	01B	5146/ 5846/ 6846 188	5146/ 5846/ 6846 188
				x			0600/0610		S06S	01A	6085/ 934, search	6085/ 934, search
			x	x			0600/0700		E06	01A	13390/15810 139, search	15920/17470 702, search
	x		x				0645		E11	03	7840 517/00	7840 517/00
						x	0700		M01	14	5465 197	5465 197
	x						0700/0800	2	M14	01A	5785/ 5895 178	5785/ 5895 178
				x			0700/0710		S06S	01A	7150/ 8215 169	7150/ 8215 169
	x						0700/0710(15)		S06S	01A	5250/ 6320 374	5250/ 6320 374
				x			0700/0720/0740		M12	01B	9138/10538/12138 138	9338/10638/12138 238
	x			x			0710		E11	03	10800 633/00	10800 633/00
		x					0730/0740		S06S	01A	7030/ 6305 481, search	7030/ 6305 481, search
			x				0730/0750/0810		M12	01B	5284/ 5784/ 277, search	5884/ 6884/ 888, search
	x		x				0745		E11	03	16112 335/00	16112 335/00
			x				0800/0810		E17Z	01A	11170, 9820 674	11170, 9820 674
x							0800		G06	01A	5363 215	5363 215
	x						0800/0810		S06S	01A	10265/ 9135 352	10265/ 9135 352
x		x					0800/0820/0840		M12	01B	14736/13536/12136 751	17427/15827/14527 485
x			x				0820		E11	03	7317 438/00	7317 438/00
		x					0820/0830		S06S	01A	6880/ 7840 471	6880/ 7840 471
x			x				0830		E11	03	9446 649/00	9446 649/00
		x					0830/0840		S06S	01A	7335/11830 745	7335/11830 745
		x					0840/0850		S06S	01A	9260/11415 328	9260/11415 328
x		x					0900		E11	03	9446 534/00	9446 534/00
			x				0900/0910		S06S	01A	12952/13565 167	12952/13565 167
					x		0900/0920/0940		E07A	01B	search	11053/12153/13553 015
	x			x			0915		S11A	03	7504 484/00	7504 484/00
			x				0930/0940		S06S	01A	8812/ 9540 314	8812/ 9540 314
				x			0930/0940		S06S	01A	11780/12570 516 9445/10195 search	11780/12570 516 9445/10195 search

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
	x						1000/1010		S06S	01A	6440/ 5660 893	6440/ 5660 893
		x					1000/1010		S06S	01A	12365/14280 729	12365/14280 729
x			x				1015		S11A	03	12530 475/00	12530 475/00
	x			x			1020		S11A	03	9610 426/00	9610 426/00
		x			x		1020		S11A	03	6433 221/00	6433 221/00
	x						1045		E11	03	10800 576/00	10800 576/00
	x	x					1045		E11	03	8091 469/00	8091 469/00
x				x			1110		E11	03	14410 95#/00	14410 95#/00
	x	x	x				1115		M03	03	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)
						x	1120/1220	2	E06	01A	6842/ 5866 154	6842/ 5866 154
		x	x			x	1155		E11	03	15632 718/00	15632 718/00
			x				1200/1210		S06S	01A	10580/9950 (12155/10920) 425	10580/9950 (12155/10920) 425
					x		1200/1210	1	S06S	01A	8680/ 8260 254	8680/ 8260 254
		x					1230/1240		S06S	01A	4580/ 6420 967	4580/ 6420 967
x							1300/1310		S06S	01A	8420/10635 831	8420/10635 831
x							1300/1320/1340		M12	01B	8112/ 7552/ 6702 157	9223/ 8193/ 7463 214
			x			x	1320		M03	03	4828 437/00	4828 437/00
				x	x		1325		G11	03	6433 299/00	6433 299/00
	x				x		1400		E11A	03	10690 98#/00	10690 98#/00
					x		1500		M01	14	5810 197	5810 197
		x					1500/1520/1540		M12	01B	7697/ 6797/ 5397 157	7697/ 6797/ 5397 214
	x						1500/1510		S06S	01A	6845/ 9170 537	6845/ 9170 537
	x				x		1535		M03	03	5358 798/00	5358 798/00
x						x	1540		E11	03	15632 228/00	15632 228/00
					x		1600 (1605)		S06	01A	7728 (6788) 134	7728 (6788) 134
x							1600/1610		S06S	01A	7436/ 6668 176	7436/ 6668 176
		x					1600/1620/1640		M12	01B	12162/11561/10711 546	12162/11561/10711 546
				x			1600/1620/1640		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
			x				1605		M01B	14	5938 159	5938 159
				x			1615		M01B	14	5810 158	5810 158
x							1700	1/2	G06	01A	3754 154	3754 154

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
x			x				1700/1720/1740		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
		x					1700/1720/1740		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463
		x				x	1700/1720/1740		E07	01B		4587 439
			x				1700/1720/1740		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
				x			1710		E11	03	6924 95#/00	6924 95#/00
			x				1730		E11	03	5082 416/00	5082 416/00
	x					x	1755		G11	03	6433 270/00	6433 270/00
x							1800	1/2	G06	01A	4467 154	4467 154
	x		x				1800		M01	14	5320 197	5320 197
	x						1800		S06	01A		3645 617
x							1800/1820/1840		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
		x				x	1800/1820/1840		E07	01B	6774/ 5836/ 4893 788	7697/ 6863/ 5938 689
			x	x			1800/1820/1840		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
	x		x				1802		M45	14	3525, 4025 525	3525, 4025 525
	x				x		1810		E11A	03	10213 98#	10213 98#
	x						1820		M14	01A	4636 186	4636 186
			x				1830	2/4	G06	01A	4519 271	4519 271
	x						1830/1850/1910		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
		x					1830/1850/1910		M12	01B	11435/10598/ 9327 938	11435/10598/ 9327 938
		x				x	1830/1850/1910		M12	01B	8192/ 7692/ 6792 167	10476/ 9276/ 8176 421
	x		x				1842		S21	14	3323, 3823 323	3323, 3823 323
x			x				1900 (1905)		S06	01A	3192 (3838) 349	3192 (3838) 349
x			x				1900/1920/1940		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
	x		x				1900/1920/1940		XPA	01B	7891/ 6791/ 5391	8123/ 7523/ 6823
x							1910		M01B	14	2435, 3519 853	2435, 3519 853
x							1915/2015	2/4	S06	01A	search	search
		x					1920/2020	2	E06	01A	3622/ 3812 154	3622/ 3812 154
		x					1920	2/4	M14	01A	4761 748	4761 748
			x				1925		E11C	03	6923 758/####/00	6923 758/####/00
				x			1930	2/4	G06	01A	4792 (4762?) 436	4792 (4762?) 436
					x		1930 (1935)		S06	01A	3212 (4029) 843	3212 (4029) 843
			x				1932		M01B	14	2466, 3545 910	2466, 3545 910
	x	x					2000		E11C	03	4909 757/####/00	4909 757/####/00

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
				x			2000		E11	03	576/00, search	576/00, search
				x		x	2000		G11	03	4441 262/00	4441 262/00
	x		x				2000		M01	14	4490 197	4490 197
x		x					2000/2020/2040		E07	01B	6982/ 5882/ 5182 988	7724/ 6924/ 5824 798
				x	x		2000/2100	1/3	M14	01A	3825/ 4470 724	4830/ 4471 724
					x		2000/2100	1/3	S06	01A	4481/ 3626 416	4481/ 3626 416
				x			2002		M01B	14	2653, 3197 866	2653, 3197 866
x							2015		M01B	14	2427, 3205 375	2427, 3205 375
			x				2030	1/3	E06	01A	4836 321	4836 321
					x		2030/2130	1/3	S06	01A	5118/ 4452 314	5118/ 4452 314
			x				2042		M01B	14	2485, 3160 382	2485, 3160 382
		x					2100/2120/2140		E07A	01A	5864/ 5164/ 4564 815	5864/ 5164/ 4564 815
				x			2110		M01B	14	2405, 3180 610	2405, 3180 610
			x				2110/2130/2150		E07	01B	6777/ 5449/ 4483 774	6777/ 5449/ 4483 774
				x			2130		E06	01A	4760 472	4760 472
		x					2200/2220/2240		M12	01B	5361/ 4461/ 340, search	5429/ 4629/ 4029 460

M01 M01b M45 Frequency Schedule

Compare with current logs

M01 Sunday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**197**	**197**	**463**	**463**	**025**	**025**	**025**	**025**	**463**	**463**	**197**	**197**
0700	5464	5464	6508	6508	6780	6780	6780	6780	6508	6508	5464	5464

M01b Monday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID				**420**	**364**	**364**	**364**	**364**	**420**	**420**		
1810				3535	5125	5125	5125	5125	3535	3535		
//				4590	5735	5735	5735	5735	4590	4590		
ID	**853**	**853**	**420**								**853**	**853**
1910	2435	2435	3535								2435	2435
//	3520	3520	4590								3520	3520
ID				**771**	**858**	**858**	**858**	**858**	**771**	**771**		
1915				3644	5150	5150	5150	5150	3644	3644		
//				4454	5475	5475	5475	5475	4454	4454		
ID				**298**	**729**	**729**	**729**	**729**	**298**	**298**		
2010				4991	5815	5815	5815	5815	4991	4991		
//				5336	6769	6769	6769	6769	5336	5336		
ID	**375**	**375**	**771**								**375**	**375**
2015	2427	2427	3644								2427	2427
//	3205	3205	4454								3205	3205
ID	**136**	**136**	**298**								**136**	**136**
2110	4615	4615	4991								4615	4615
//	5065	5065	5336								5065	5065

M01 Tuesday/Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**197**	**197**	**463**	**463**	**025**	**025**	**025**	**025**	**463**	**463**	**197**	**197**
1800	5320	5320	5474	5474	5280	5280	5280	5280	5474	5474	5320	5320
2000	4490	4490	5017	5017	4905	4905	4905	4905	5017	5017	4490	4490

M01b Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**
1505				5938	5938	5938	5938	5938	5938	5938		
1605	5938	5938	5938								5938	5938
ID				**201**	**815**	**815**	**815**	**815**	**201**	**201**		
1832				3510	5095	5095	5095	5095	3510	3510		
//				4605	5760	5760	5760	5760	4605	4605		
ID	**910**	**910**	**201**								**910**	**910**
1932	2466	2466	3510								2466	2466
//	3545	3545	4605								3545	3545
ID				**477**	**936**	**936**	**936**	**936**	**477**	**477**		
1942				3715	5064	5064	5064	5064	3715	3715		
//				4570	5805	5805	5805	5805	4570	4570		
ID				**302**	**931**	**931**	**931**	**931**	**302**	**302**		
2032				4905	5763	5763	5763	5763	*4905*	*4905*		
//				5736	5941	5941	5941	5941	*5736*	*5736*		
ID	**382**	**382**	**477**								**382**	**382**
2042	2485	2485	3715								2485	2485
//	3160	3160	4570								3160	3160
ID	**514**	**514**	**302**								***514***	***514***
2132	4603	4603	4905								*4603*	*4603*
//	4991	4991	5736								*4991*	*4991*

M01b Friday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**
1515	xxxx	xxxx	xxxx	5810	5810	5810	5810	5810	5810	5810	xxxx	xxxx
1615	5810	5810	5810								5810	5810
ID										**365**	**444**	
1708										6365		
1808											6444	
ID				**153**	**336**	**336**	**336**	**815**	**153**	**153**		
1902				3625	5075	5075	5075	5075	3625	3625		
//				4440	5465	5465	5465	5465	4440	4440		
ID	**866**	**866**	**153**								**866**	**866**
2002	2653	2653	3625								2653	2653
//	3197	3197	4440								3197	3197
ID				**582**	**467**	**467**	**467**	**467**	**582**	**582**		
2010				3520	4895	4895	4895	4895	3520	3520		
//				4585	5340	5340	5340	5340	4585	4585		
ID				**271**	**871**	**871**	**871**	**871**	*271*	*271*		
2102				4766	5329	5329	5329	5329	*4766*	*4766*		
//				5443	5752	5752	5752	5752	*5443*	*5433*		
ID	**610**	**610**	**582**								**610**	**610**
2110	2405	2405	3520								2405	2405
//	3180	3180	4585								3180	3180
ID	**419**	**419**	**271**								*419*	*419*
2202	4508	4508	4766								*4508*	*4508*
//	4706	4706	5443								*4706*	*4706*

M01 Saturday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**197**	**197**	**463**	**463**	**025**	**025**	**025**	**025**	**463**	**463**	**197**	**197**
1500	5810	5810	6261	6261	6434	6434	6434	6434	6261	6261	5810	5810

M45 Tuesday/Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**525**	**525**	**555**	**555**	**074**	**074**	**074**	**074**	**555**	**555**	**525**	**525**
1702					5074	5074	5074	5074				
//					5474	5474	5474	5474				
1802	3525	3525	4555	4555					4555	4555	3525	3525
//	4025	4025	4955	4955					4955	4955	4025	4025

With a receiver set to CW mode you will hear two tones. The table above shows the lower tone. Add 2kHz for other tone. These tones are modulated allowing you to hear this in AM mode.

M01b is undergoing some changes and not all those listed are active. Frequencies not heard are in *italics* and shaded whilst the frequencies of those not heard for rest of year are also *italicised*

Revised 4th May, 2012

M12 Log1 Nov 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Thu 1	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	1700	9176^	1720	7931^	1740	6904	257	9955	90
	1700	10343	1740	9264	1740	8116	124	3889	76
	1800	10343	1820	9264	1840	8116	124	6406	48
	1900	9176^	1920	7931	1940	6904	257	7015	49
Fri 2	1800	10343	1820	9264	1840	8116	124	3928	83
Sat 3	None	Found							
Sun 4	18**30**	10286	18**50**	9286	19**10**	- - -	221	0 0 0	
Mon 5	0530	4617	0550	5317	0610	- - -	638	0 0 0	
	1300	9187	1320	8057	1340	7697	106	269	53
	1600	12162	1620	11566	1640	10711	546	2440	93
	1700	9176^	1720	7931	1740	6904	257	6033	74
	1800	9176^	1820	7931	1840	6904	257	1132	54
	1700	9176^	1920	7931^	1940	6904	257	4917	96
Tue 6	18**30**	10343	18**50**	9264	19**10**	8116	124	6418	59
Wed 7	1500	8112	1520	7552	1540	6792	106	269	53
	1700	8047	1720	6802	1740	5788	463	2773	91
	18**30**	11435^	18**50**	10598^	19**10**	9327	938	6994	65
	18**30**	10286^	18**50**	9286	19**10**	8186	221	770	153
	2200	5429	2220	4629	2240	- - -	460	0 0 0	

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Thu 8	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	1700	9176	1720	7931	1740	6904	257	5087	73
	1700	10343	1740	9264	1740	8116	124	8766	73
	1800	10343	1820	9264	1840	8116	124	3244	55
	1900	9176^	1920	7931	1940	6904	257	5641	63
Fri 9	1800	10343	1820	9264	1840	8116	124	8707	85
Sat 10	1310	9162^	1330	8062^	1350	- - -	104	0 0 0	
Sun 11	18**30**	10286^	18**50**	9286^	19**10**	8186^	221	770	153
Mon 12	0530	4617	0550	5317	0610	- - -	638	0 0 0	
	1300	9187	1320	8057	1340	7697	106	300	49
	1600	12162	1620	11566	1640	10711	546	5220	78
	1700	9176	1720	7931	1740	6904	257	4622	77
	1800	9176	1820	7931	1840	6904	257	2518	49
	1700	9176^	1920	7931	1940	6904	257	6359	95
Tue 13	18**30**	10343	18**50**	9264	19**10**	8116	124	4038	59
Wed 14	1500	8112	1520	7552	1540	6792	106	300	49
	1700	8047	1720	6802	1740	5788	463	6115	79
	18**30**	NH	18**50**	NH	19**10**	NH	938		
	18**30**	NH	18**50**	NH	19**10**	NH	221		
	2200	NH	2220	NH	2240	NH	460		

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0
^ Weak reception NH Not Heard NF Not Found

Thanks to Fritz (FN) for finding the ID 104 sched 1310z Sat

M12 Log2 Nov 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Thu 15	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	1310	9162	1330	8062	1350	7462	104	482	65
	1700	9176^	1720	7931^	1740	6904^	257	2088	50
	1700	10343^	1740	9264^	1740	8116	124	1253	73
	1800	NH	1820	NH	1840	NH	124	---	--
	1900	NH	1920	NH	1940	6904^	257	???	??
Fri 16	1800	10343	1820	9264	1840	8116	124	8265	80
Sat 17	Not	Monit	-ored						
Sun 18	18**30**	10286	18**50**	9286	19**10**	8186	221	708	219
Mon 19	0530	4617	0550	5317	0610	- - -	638	0 0 0	
	1300	9187	1320	8057	1340	7697	106	470	35
	1600	12162	1620	11566	1640	10711	546	1153	84
	1700	9176	1720	7931	1740	6904	257	7215	74
	1800	9176^	1820	7931	1840	6904	257	5865	43
	1700	9176	1920	7931	1940	6904	257	9886	88
Tue 20	18**30**	10343^	18**50**	9264^	19**10**	8116	124	5597	69
Wed 21	1500	8112	1520	7552	1540	6792	106	470	35
	1700	8047	1720	6802	1740	5788	463	4165	74
	18**30**	NH	18**50**	10598^	19**10**	9327^	938	5520	5?
	18**30**	10286^	18**50**	9286^	19**10**	8186	221	570	187
	2200	5429	2220	4629	2240	4029	460	565	69

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Thu 22	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	1310	9162	1330	8062	1350	- - -	104	0 0 0	
	1700	9176	1720	7931	1740	6904	257	6372	67
	1700	10343	1740	9264	1740	8116	124	5724	70
	1800	10343^	1820	9264^	1840	8116^	124	???	??
	1900	NH	1920	NH	1940	6904^	257	???	??
Fri 23	1800	10343	1820	9264	1840	8116	124	934	54
Sat 24	1310	9162^	1330	8062^	1350	- - -	104	0 0 0	
Sun 25	18**30**	10286	18**50**	9286	19**10**	8186	221	570	187
Mon 26	0530	4617	0550	5317	0610	- - -	638	0 0 0	
	1300	9187	1320	8057	1340	7697	106	932	57
	1600	12162	1620	11566	1640	10711	546	934	54
	1700	9176	1720	7931	1740	6904	257	7297	71
	1800	9176	1820	7931	1840	6904	257	6939	59
	1700	9176^	1920	7931^	1940	6904	257	1282	97
Tue 27	18**30**	NH	18**50**	NH	19**10**	8116^	124	???	??
Wed 28	1500	8112	1520	7552	1540	6792	106	932	57
	1700	8047	1720	6802	1740	5788	463	4583	61
	18**30**	NH	18**50**	NH	19**10**	9327^	938	???	??
	18**30**	10286^	18**50**	NH	19**10**	NH	221	???	??
	2200	5429	2220	4629	2240	- - -	460	0 0 0	

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0
^ Weak reception NH Not Heard NF Not Found

M12 Log1 Dec 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 1	Not	Moni	-tored						
Sun 2	18**30**	9168^	18**50**	7968	19**10**	- - -	194	0 0 0	
Mon 3	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	617	83
	1600	12162	1620	11566	1640	10711	546	7314	90
	1700	9176	1720	7931	1740	6904	257	2129	74
	1800	9176^	1820	7931	1840	6904	257	8703	66
	1900	9176^	1920	7931^	1940	6904	257	7760	45
Tue 4	18**30**	10343^	18**50**	9264^	19**10**	8116	124	9337	51
Wed 5	1500	7509	1520	6909	1540	5709	214	617	83
	1700	8047	1720	6802	1740	5788	463	8901	83
	18**30**	9168^	18**50**	7968	19**10**	7468	194	958	231
	18**30**	11435	18**50**	10598	19**10**	9327	938	2985	67
	2200	5312	2220	4512	2240	- - -	350	0 0 0	
Thu 6	07**30**	5284	07**50**	5784	08**10**	- - -	277	0 0 0	
	1700	9176	1720	7931	1740	6904	257	9807	90
	1700	10343^	1720	9264	1740	8116	124	7 . 04	78
	1800	10343^	1820	9264^	1840	8116	124	3549	72
	1900	9176^	1920	7931^	1940	6904	257	3301	46
Fri 7	1800	10343^	1820	9264	1840	8116	124	6169	76

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 8	Not	Moni	-tored						
Sun 9	18**30**	9168^	18**50**	7968^	19**10**	7468	194	958	231
Mon 10	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	480	211
	1600	12162	1620	11566	1640	10711	546	133	49
	1700	9176	1720	7931	1740	6904	257	2204	60
	1800	9176	1820	7931	1840	6904	257	1140	49
	1900	9176	1920	7931	1940	6904	257	7902	82
Tue 11	18**30**	10343^	18**50**	9264^	19**10**	8116^	124	4906	61
Wed 12	1500	7509	1520	6909	1540	5709	214	480	211
	1700	8047	1720	6802	1740	5788	463	1142	44
	18**30**	NH	18**50**	7968^	19**10**	- - -	194	0 0 0	
	18**30**	NH	18**50**	10598^	19**10**	9327^	938	3106	53
	2200	5312	2220	4512	2240	- - -	350	0 0 0	
Thu 13	07**30**	5284	07**50**	5784	08**10**	- - -	277	0 0 0	
	1700	9176^	1720	7931^	1740	6904	1460	93	
	1700	10343	1720	9264	1740	8116	124	3016	72
	1800	10343	1820	9264	1840	8116	124	1026	68
	1900	9176^	1920	7931	1940	6904	257	6264	50
Fri 14	1800	10343	1820	9264	1840	8116	124	2388	95

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0

^ Weak reception NH Not Heard NF Not Found

M12 Log2 Dec 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 15	Not	Moni	-tored						
Sun 16	1830	9168^	1850	7968	1910	- - -	194	0 0 0	
Mon 17	0530	4457	0550	5157	0610	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	793	145
	1600	12162	1620	11566	1640	10711	546	929	51
	1700	9176	1720	7931	1740	6904	257	2017	72
	1800	9176^	1820	7931	1840	6904	257	2831	56
	1900	9176^	1920	7931^	1940	6904	257	7929	87
Tue 18	1830	NH	1850	9264^	1910	8116^	124	2936	70
Wed 19	1500	7509	1520	6909	1540	5709	214	793	145
	1700	8047	1720	6802	1740	5788	463	1965	62
	1830	9168^	1850	7968	1910	7468	194	194	115
	1830	11435	1850	10598	1910	9327	938	7666	63
	2200	5312	2220	4512	2240	- - -	350	0 0 0	
Thu 20	0730	5284	0750	5784	0810	- - -	277	0 0 0	
	1700	9176^	1720	7931^	1740	6904^	257	2260	56
	1700	10343^	1720	9264	1740	8116	124	3293	65
	1800	10343^	1820	9264^	1840	8116	124	9265	44
	1900	9176^	1920	7931^	1940	6904	257	3687	49
Fri 21	1800	10343^	1820	9264^	1840	8116	124	929	51

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 22	Not	Moni	-tored						
Sun 23	1010	13569	1030	14869	1050	- - -	582	0 0 0	
	1830	9168^	1850	7968^	1910	7468	194	194	115
Mon 24	0530	4457	0550	5157	0610	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	439	69
Tue 25	1830	10343^	1850	9264^	1910	8116^	124	9686	51
Wed 26	1500	7509	1520	6909	1540	5709	214	439	69
	1700	8047	1720	6802	1740	5788	463	9119	96
	1830	9168^	1850	7968^	1910	7468	194	316	81
	1830	11435	1850	10598	1910	9327	938	2501	69
	2200	5312	2220	4512	2240	4012	350	261	97
Thu 27	0730	5284	0750	5784	0810	- - -	277	0 0 0	
	1010	13569	1030	14869	1050	16269	582	571	67
	1700	9176	1720	7931	1740	6904	257	7591	64
	1700	10343^	1720	9264	1740	8116	124	8368	79
	1800	10343^	1820	9264^	1840	8116	124	7526	77
	1900	9176^	1920	7931	1940	6904	257	9124	42
Fri 28	1800	10343	1820	9264	1840	8116	124	9304	87

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0

^ Weak reception NH Not Heard NF Not Found

Thanks to Fritz (FN) for finding the ID582 sched 1010z Thu / Sun

M12 Log2 Nov 2012 (Residue)

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Cont…									
Thu 29	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
Nov	1310	9162	1330	8062	1350	- - -	104	0 0 0	
	1700	9176^	1720	7931	1740	6904	257	1337	93
	1700	10343^	1740	9264^	1740	8116^	124	???	??
	1800	NH	1820	NH	1840	8116^	124	???	??
	1900	NH	1920	7931^	1940	6904^	257	2201	66
Fri 30	1800	NH	1820	NH	1840	8116^	124	???	??
Nov									

M12 Log2 Dec 2012 (Residue) Brian - S.E. England

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Cont…									
Sat 29	Not	Moni	-tored						
Dec									
Sun 30	10**10**	13569	10**30**	14869	10**50**	16269	582	571	67
Dec	18**30**	9168	18**50**	7968	19**10**	7468	194	316	81
Mon 31	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
Dec	1300	9223	1320	8193	1340	- - -	214	0 0 0	
	1700	NH	1720	NH	1740	NH	257	NH	
	1800	NH	1820	NH	1840	NH	257	NH	
	1900	NH	1920	NH	1940	NH	257	NH	

Highlighted cell indicates new or changed loggings

--- Indicates no 3rd transmission sent as message 0 0 0

^ Weak reception NH Not Heard NF Not Found

M12 Yearly Repeat Schedules 2011 - 2012 **Brian S.E. England**

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Jan													
04**40**	05**00**	05**20**	4443	5043	5843	408		X		X			
05**30**	05**50**	06**10**	4457	5157	- - -	417	X						
07**30**	07**50**	08**10**	5284	5784	- - -	277				X			
1500	1520	1540	7697	6797	5397	157			X				
1900	1920	1940	9176	7931	6904	257	X						
2200	2220	2240	5361	4461	- - -	340			X				
Feb													
04**40**	05**00**	05**20**	5872	6772	7672	876		X		X			
05**30**	05**50**	06**10**	4617	5317	- - -	638	X						
07**30**	07**50**	08**10**	5884	6884	- - -	888				X			
1300	1320	1340	9223	8193	7463	214	X						
1500	1520	1540	7697	6797	5397	214			X				
1900	1920	1940	9176	7931	6904	257	X						
2200	2220	2240	5429	4629	4029	460			X				

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Mar													
04**40**	05**00**	05**20**	5829	6929	8028	890		X		X			
05**30**	05**50**	06**10**	5792	6992	- - -	796	X						
07**30**	07**50**	08**10**	6784	7684	8184	761				X			
1300	1320	1340	11524	10424	9324	543	X						
1500	1520	1540	10968	10168	9128	543			X				
1900	1920	1940	9176	7931	6904	257	X						
2200	2220	2240	5763	5163	4463	714			X				
Apr													
03**40**	04**00**	04**20**	5829	6929	8029	890		X		X			
1300	1320	1340	14964	13972	12164	991	X						
1500	1520	1540	13918	12218	10748	991			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X	X		
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	6793	5893	----	785			X				

M12 Yearly Repeat Schedules 2011 - 2012 **Brian S.E. England**

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
May													
0340	0400	0420	8173	9173	10173	111		X		X			
0430	0450	0510	6857	7557	- - -	850	X						
0630	0650	0710	7984	9184	- - -	911				X			
1300	1320	1340	14372	13472	11472	344	X						
1310	1330	1350	13926	12126	- - -	919						X	
1500	1520	1540	14492	13392	12126	344			X				
1600	1620	1640	10343	9264	8116	124					X		
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
1830	1850	1910	12217	10617	9317	263			X				X
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	9241	7541	6841	258			X				
Jun													
0340	0400	0420	8173	9173	10173	111		X		X			
0430	0450	0510	6857	7557	- - -	850	X						
0630	0650	0710	7984	9184	- - -	911				X			
1300	1320	1340	14524	13524	11525	555	X						
1310	1330	1350	13873	13373	11473	834						X	
1500	1520	1540	14964	13972	12164	555			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
1830	1850	1910	10343	9264	8116	124		X					
1830	1850	1910	10843	9243	7843	828							X
1830	1850	1910	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	9986	9086	- - -	903			X				
2110	2130	2150	16269	14669	- - -	263			X				

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
July													
0430	0450	0510	6857	7557	- - -	850	X						
0630	0650	0710	7984	9184	- - -	911				X			
1300	1320	1340	13972	13472	11472	944	X						
1310	1330	1350	13926	12126	- - -	919						X	
1500	1520	1540	14492	13392	11092	944			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
1830	1850	1910	10343	9264	8116	124		X					
1830	1850	1910	10843	9243	7843	828							X
1830	1850	1910	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	9379	7979	- - -	398			X				
2110	2130	2150	14869	13569	- - -	851			X			X	
Aug													
1300	1320	1340	14964	13972	12164	991	X						
1310	1330	1350	14468	13568	12178	451				X		X	
1500	1520	1540	13918	12218	10818	991			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
1830	1850	1910	10343	9264	8116	124		X					
1830	1850	1910	11435	10598	9327	938			X				
1830	1850	1910	13984	12184	10384	913							X
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	8123	6923	5823	198			X				
2110	2130	2150	13369	12179	10469	314			X			X	

M12 Yearly Repeat Schedules 2011 - 2012 **Brian S.E. England**

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Sep													
1300	1320	1340	14372	13472	11472	344	X						
1500	1520	1540	13524	`11524	10334	344			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
18**30**	18**50**	19**10**	14926	13926	12126	991			X				X
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	6793	5893	- - -	785			X				
21**10**	21**30**	21**50**	11469	10469	9169	441			X			X	
2200	2220	2240	13412	11512	- - -	454					X		
Oct													
1300	1320	1340	10804	9324	7964	839	X						
1500	1520	1540	9223	8193	7463	839			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	12217	10617	9317	263			X				X
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	5814	5214	4614	826			X				
21**10**	21**30**	21**50**	10269	9269	7969	229			X			X	

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Nov													
05**30**	05**50**	06**10**	4617	5317	- - -	638	X						
07**30**	07**50**	08**10**	5884	6884	- - -	888				X			
1300	1320	1340	9187	8057	7697	106	X						
1500	1520	1540	8112	7552	6792	106			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	19**50**	19**10**	10286	9286	8186	221							X
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5429	4629	- - -	460			X				
Dec													
05**30**	05**50**	06**10**	4457	5157	- - -	417	X						
0600	0620	0640	5784	7584	9184	751						X	
07**30**	07**50**	08**10**	5284	5784	6784	277				X			
1300	1320	1340	9223	8193	7463	214	X						
1500	1520	1540	7509	6909	5709	214			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	19**50**	19**10**	9118	7918	7418	194							X
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5312	4512	4012	350			X				

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	General Remarks
	x		x				0645		E11	03	7840 517/00	7840 517/00	7840 517/00	7840 517/00	since 07/09, **last log 12/12**
	x			x			0710		E11	03	10800 633/00	10800 633/00	10800 633/00	10800 633/00	since 02/11, **last log 12/12**
	x		x				0745		E11	03	16112 335/00	16112 335/00	16112 335/00	16112 335/00	since 10/11, **last log 11/12**
x			x				0820		E11	03	7317 438/00	7317 438/00	7317 438/00	7317 438/00	since 10/09, **last log 11/12**
x			x				0830		E11	03	9446 649/00	9446 649/00	9446 649/00	9446 649/00	since 01/10, **last log 11/12**
x		x					0900		E11	03	9446 534/00	9446 534/00	9446 534/00	9446 534/00	since 10/09, **last log 12/12**
	x			x			0915		S11A	03	7504 484/00	7504 484/00	7504 484/00	7504 484/00	since 01/10, **last log 12/12**
x			x				1015		S11A	03	12530 475/00	12530 475/00	12530 475/00	12530 475/00	since 04/10, **last log 12/12**
	x			x			1020		S11A	03	9610 426/00	9610 426/00	9610 426/00	9610 426/00	since 02/10, **last log 12/12**
		x			x		1020		S11A	03	6433 221/00	6433 221/00	6433 221/00	6433 221/00	since 01/09, last log 10/12
	x						1045		E11	03	10800 576/00	10800 576/00	10800 576/00	10800 576/00	since 01/12, **last log 12/12**
	x	x					1045		E11	03	8091 469/00	8091 469/00	8091 469/00	8091 469/00	since 03/10, **last log 12/12**
x				x			1110		E11	03	14410 95#/00	14410 95#/00	14410 95#/00	14410 95#/00	since 12/11, **last log 12/12**
	x	x	x				1115		M03	03	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	since 10/09, **last log 12/12**
		x	x			x	1155		E11	03	15632 718/00	15632 718/00	15632 718/00	15632 718/00	since 04/11, **last log 12/12**
			x			x	1320		M03	03	4828 437/00	4828 437/00	4828 437/00	4828 437/00	since 02/11, **last log 12/12**
				x	x		1325		G11	03	6433 299/00	6433 299/00	6433 299/00	6433 299/00	since 03/10, **last log 12/12**
	x				**x**		**1400**		**E11A**	**03**	**10690 98#/00**	**10690 98#/00**	**10690 98#/00**	**10690 98#/00**	**since 10/11, last log 12/12**
	x				x		1535		M03	03	5358 798/00	5358 798/00	5358 798/00	5358 798/00	since 11/10, **last log 11/12**
x						x	1540		E11	03	15632 228/00	15632 228/00	15632 228/00	15632 228/00	since 03/11, **last log 12/12**
				x			1710		E11	03	6924 95#/00	6924 95#/00	6924 95#/00	6924 95#/00	since 11/11, **last log 12/12**
			x				1730		E11	03	5082 416/00	5082 416/00	5082 416/00	5082 416/00	since 03/10, **last log 12/12**
	x					x	1755		G11	03	6433 270/00	6433 270/00	6433 270/00	6433 270/00	since 02/10, **last log 12/12**
	x				**x**		**1810**		**E11A**	**03**	**10213 98#**	**10213 98#**	**10213 98#**	**10213 98#**	**since 08/12, last log 11/12**
			x				**1925**		**E11C**	**03**	**6923 758/####/00**	**6923 758/####/00**	**6923 758/####/00**	**6923 758/####/00**	**since 08/12, last log 12/12**
	x	x					2000		E11C	03	4909 757/####/00	4909 757/####/00	4909 757/####/00	4909 757/####/00	since 12/11, **last log 12/12**
				x			2000		E11	03	576/00, search	576/00, search	576/00, search	576/00, search	since 03/12, last log 10/12
				x		x	2000		G11	03	4441 262/00	4441 262/00	4441 262/00	4441 262/00	since 01/11, **last log 12/12**

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	General Remarks
x							0800		G06	01A	5363 215	5363 215	5363 215	5363 215	since 07/10, **last log 11/12**
x							1700	1/2	G06	01A	3754 154	3754 154	3754 154	3754 154	since 04/10, **last log 11/12** yearly changing id
x							1800	1/2	G06	01A	4467 154	4467 154	4467 154	4467 154	since 05/09, **last log 11/12** yearly changing id
			x				1830	2/4	G06	01A	4519 271	4519 271	4519 271	4519 271	since 05/01, **last log 11/12**
				x			1930	2/4	G06	01A	4792 **(4762?)** 436	4792 **(4762?)** 436	4792 **(4762?)** 436	4792 **(4762?)** 436	since 04/01, **last log 11/12** rpt of Thu 1830Z

XPA Polytones

November2012

XPA c [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 0600z 11409kHz 2. 0620z: 13509kHz 3. 0640z: 14609kHz

ID456 Mode: USB **[Wed/Sat]**

ID/msg/serial no/gc/dk/end grp

03Sat	456 000 03124 00001 00000 10140	[2m26s]
07Wed	456 1 00990 00261 08083 20070	[5m07s]
10Sat	456 1 00990 00261 08083 20070	[5m07s]
14Wed	NRH Poor HF propagation reported	
17Sat	456 1 00904 00155 07770 23547	[4m00s]
21Wed	456 1 00599 rest inaudible, QSB to nil	[4m54s]
24Sat	456 1 00599 00239 36573 51617	[4m54s]
28Wed	456 1 00962 00177 97057 47100	[4m15s]

XPA c Morning 0600z Schedule

Generally strong sendings with some propagational influences as stated.

XPA e [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 1900z 8123kHz 2. 1920z: 7523kHz 3. 1940z: 6823kHz

ID158 Mode: USB **[Tue/Thu]**

ID/msg/serial no/gc/dk/end grp

01Thu	158 000 03198 00001 00000 10140	[2m26s]
06Tue	158 1 00528 00309 35623 03403	[5m37s]
08Thu	Too weak for process	[5m37s]
13Tue	158 1 00938 00281 22572 54410	[5m19s]
15Thu	NRH Poor HF propagation reported	
20Tue	158 1 00263 00225 06918 70360	[4m44s]
22Thu	… . 00233 06918 7030?	Poor Condx, RNGB
27Tue	NRH	
29Thu	158 1 *00821 00093 65764 73220* *Unsure of figs*	[3m23s]

XPA e Evening 1900z schedule

Usual poor signals from this schedule, not believed to be aimed at the UK

December 2012

XPA c [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 0700z 7756kHz 2. 0720z: 9056kHz 3. 0740z: 10656kHz

ID706	Mode: USB	**[Wed/Sat]**
	ID/msg/serial no/gc/dk/end grp	
01Sat	21770	[5m44s]
05Wed	706 1 00842 00223 63733 73544	[4m45s]
08Sat	706 1 00842 00223 63733 73544	[4m45s]
12Wed	706 1 00459 00091 07273 40266	[3m21s]
15Sat	706 000 06724 00001 00000 10140	[2m26s]
19Wed	706 1 00352 00167 82535 67371	[4m07s]
22Sat	706 1 00352 00167 82535 67371	[4m07s]
26Wed	706 1 00542 00105 00418 14337	[3m29s]
29Sat	706 1 00542 00105 00418 14337	[3m29s]

XPA c Morning 0600z Schedule

Generally strong and very strong signals into UK

XPA e [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 1900z 8164kHz 2. 1920z: 7364kHz 3. 1940z: 5864kHz

ID138	Mode: USB	**[Tue/Thu]**
	ID/msg/serial no/gc/dk/end grp	
04 Tue	138 1 00248 00177 63966 13335	[4m12s]
06Thu	138 1 00248 00177 63966 13335	[4m12s]
11 Tue	138 000 03199 00001 00000 10140	[2m26s]
13Thu	138 000 09923 00001 00000 10140	[2m26s]
18 Tue	138 000 05912 00001 00000 10140	[2m26s]
20Thu	138 000 05912 00001 00000 10140	[2m26s]
25 Tue	138 1 00506 00139 4486n nnnnn	[3m46s]
27Thu	138 1 00506 00139 nnnnn nnnnn	[3m46s]

XPA e Evening 1900z schedule

Usual poor signal strengths, weak and noisy. Particularly so with 1900/1920z sendings.

The last three transmissions have had the 1900/1920z slots marked NRH, the last ‘useable’ sending of the month at 1940z being badly affected by XJTQRM3

SPECIAL MATTERS:

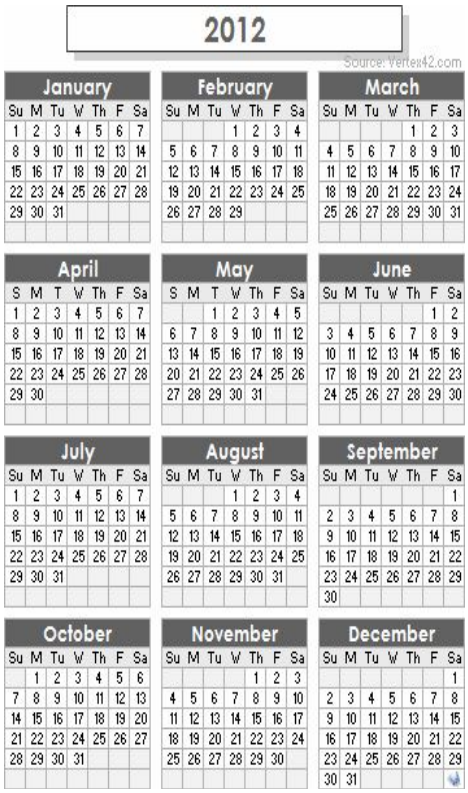
Operation Jallaa: 0

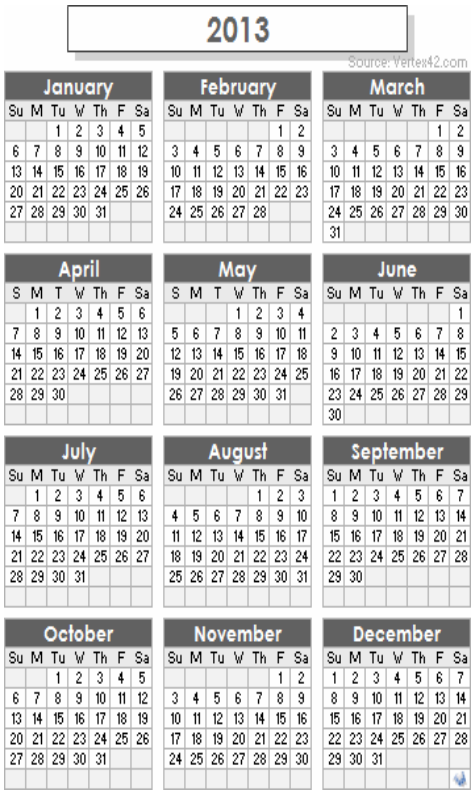
MESSAGES:

RELEVANT WEBSITES

ENIGMA 2000 Website:	http://www.enigma2000.org.uk
Frequency Details can be downloaded from:	http://www.cvni.net/radio/
More Info on 'oddities' can be found on Brian of Sussex' excellent web pages:	http://www.brogers.dsl.pipex.com/page2.html
Time zone information:	http://www.timeanddate.com/library/abbreviations/timezones/
Encyclopedia of Espionage, Intelligence, and Security	http://www.espionageinfo.com/

EyeSpyMag! http://www.eyespymag.com





Statements affecting the use of ENIGMA2000 material of all description and intellectual property of others:

Copyright & Fair Use Policy
© All items posted on our website and within our newsletter remain the property of ENIGMA 2000 and are copyright.

ENIGMA 2000 condone the use of this material [unaltered and unchanged] in other newsletters devoted to Numbers and Oddities but ask that you credit ENIGMA 2000.

The above applies only to documents found on this website and not logs sent to ENIGMA 2000 for their sole use which cannot be used elsewhere.

Within the Number Monitors Group site, the following applies:

USE OF POSTINGS, IMAGES, SOUND SAMPLES and OTHER FILES:

©All items posted here remain the property of ENIGMA 2000 and are copyright.

MEMBERS' LOGS & IMAGERY POSTED HERE *SOLELY FOR ENIGMA2000 USE* CANNOT BE LIFTED FOR USE ELSEWHERE.