## ENIGMA 2000 NEWSLETTER

http://www.enigma2000.org.uk


## Remote interception methods described inside <br> Unit shewn is Eton G3. Two boxes are connected to antenna of choice and splits for use with another receiver

 Also
## X06 Logging Week

And
Experimentation with Digital Signal Processing FFT software to analyse X06 and other signals

## ISSUE 63

## March 2011

http://www.enigma2000.org.uk

## X06 Logging Week

(End March 2011 - dates to be announced by Group mail)
The X06 Team are looking to members for some help in a concentrated Logging Week towards the end of March. We hope that members will join us in trying to track down more of these elusive signals, both those on known and unknown frequencies.

A little background may help. The Enigma designator for the Mazielka series is X06.
Mazielka is thought to be a selcall system used by the Russian MFA to alert out-stations, in advance of forthcoming messages to be sent in Crowd 36 or similar.

Up to $99 \%$ of these signals are sent out at random times on up to 350 different frequencies.
These signals take the form of a repeated series of 6 tones (at 840,870,900,930,970,1015 Herz) sent in 2 seconds, and in any sequence of 1-6, producing 720 variants.

These signals are largely transmitted in AM but are, generally, easier to recognise in USB. Each transmission usually lasts for around $4 / 5$ minutes.

Apart from the 720 variants there are other Mazielka tone combinations of simple 2, 34 and 5 tones which you may hear and, of course, the frequency list covers only those frequencies where we have already logged signals.

You can also expect to find Mazielka signals all the way from around 4Mhz up to 25Mhz but their random nature makes them difficult to pinpoint .

Identifying a Mazielka signal is simply a matter of reading the tones in order. For example 840 Hz (lowest tone) is designated as "1", 870 Hz as "2", 900 Hz as " 3 ", 930 Hz as" 4 ", 970 Hz as " 5 " and 1015 Hz (the highest) as " 6 ".

A sound file of 164532 can be found in the File Section of Group in the file marked 'X06 Sample'.


The image above shews the spectral image of the same tone sequence
These signals are widely heard in Europe and the Mediterranean area, and also regularly reach Argentina and occasionally Australia.
If you can spend some time in the week or indeed at any time, we would be grateful if you could send log details including: date, time logged, frequency and a short sound file to either
peter@bmsona.co.uk or jochen.schupper@gmx.de
If possible could you also please keep an approximation of the time you have spent on the project.
If you have any queries please do not hesitate to ask either Peter or Jochen
The exact dates of the Logging Week will be announced within the next few days.

| 4.765 | 7.532 | 9.065 | 10.200 | 11.025 | 12.122 | 12.122 | 13.961 | 14.970 | 17.511 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4.912 | 7.545 | 9.067 | 10.202 | 11.067 | 12.123 | 12.123 | 13.985 | 15.687 | 18.204 |
| 4.963 | 7.550 | 9.076 | 10.205 | 11.075 | 12.126 | 12.126 | 14.000 | 15.819 | 18.206 |
| 5.272 | 7.563 | 9.077 | 10.214 | 11.093 | 12.134 | 12.134 | 14.208 | 15.822 | 18.245 |
| 5.760 | 7.604 | 9.105 | 10.218 | 11.115 | 12.149 | 12.149 | 14.377 | 15.828 | 18.321 |
| 5.772 | 7.634 | 9.106 | 10.236 | 11.125 | 12.150 | 12.150 | 14.391 | 15.836 | 18.346 |
| 5.798 | 7.680 | 9.130 | 10.240 | 11.153 | 12.152 | 12.152 | 14.392 | 15.858 | 18.349 |
| 5.815 | 7.734 | 9.145 | 10.270 | 11.411 | 12.157 | 12.157 | 14.414 | 15.870 | 18.350 |
| 5.818 | 7.819 | 9.160 | 10.275 | 11.412 | 12.158 | 12.158 | 14.419 | 15.878 | 18.523 |
| 5.820 | 7.820 | 9.174 | 10.283 | 11.413 | 12.167 | 12.167 | 14.446 | 15.973 | 18.538 |
| 5.831 | 7.822 | 9.179 | 10.300 | 11.424 | 12.168 | 13.369 | 14.476 | 16.001 | 18.752 |
| 5.838 | 7.833 | 9.197 | 10.335 | 11.438 | 12.174 | 13.393 | 14.488 | 16.024 | 18.920 |
| 5.847 | 7.862 | 9.215 | 10.372 | 11.440 | 12.177 | 13.395 | 14.501 | 16.025 | 19.522 |
| 5.865 | 7.870 | 9.235 | 10.374 | 11.450 | 12.178 | 13.401 | 14.547 | 16.045 | 19.611 |
| 5.932 | 7.975 | 9.240 | 10.380 | 11.462 | 12.186 | 13.419 | 14.550 | 16.115 | 20.437 |
| 6.777 | 7.988 | 9.253 | 10.453 | 11.472 | 12.194 | 13.420 | 14.560 | 16.116 | 20.605 |
| 6.780 | 8.005 | 9.288 | 10.474 | 11.483 | 12.195 | 13.423 | 14.563 | 16.117 | 20.813 |
| 6.800 | 8.041 | 9.300 | 10.477 | 11.501 | 12.199 | 13.425 | 14.570 | 16.118 | 23.458 |
| 6.818 | 8.045 | 9.301 | 10.517 | 11.515 | 12.200 | 13.427 | 14.630 | 16.132 |  |
| 6.842 | 8.059 | 9.303 | 10.519 | 11.525 | 12.201 | 13.448 | 14.635 | 16.153 |  |
| 6.850 | 8.062 | 9.304 | 10.535 | 11.537 | 12.207 | 13.450 | 14.650 | 16.165 |  |
| 6.870 | 8.078 | 9.320 | 10.536 | 11.538 | 12.213 | 13.457 | 14.655 | 16.200 |  |
| 6.882 | 8.081 | 9.330 | 10.575 | 11.545 | 12.215 | 13.465 | 14.675 | 16.223 |  |
| 6.883 | 8.083 | 9.333 | 10.592 | 11.556 | 12.218 | 13.488 | 14.720 | 16.225 |  |
| 6.893 | 8.100 | 9.351 | 10.601 | 11.570 | 12.219 | 13.493 | 14.765 | 16.251 |  |
| 6.911 | 8.105 | 9.365 | 10.653 | 11.572 | 12.220 | 13.505 | 14.812 | 16.257 |  |
| 6.915 | 8.109 | 9.388 | 10.684 | 11.574 | 12.224 | 13.506 | 14.820 | 16.276 |  |
| 6.932 | 8.123 | 9.450 | 10.712 | 11.638 | 12.225 | 13.510 | 14.824 | 16.277 |  |
| 6.938 | 8.131 | 9.923 | 10.714 | 12.089 | 12.300 | 13.517 | 14.825 | 16.314 |  |
| 6.958 | 8.141 | 9.930 | 10.730 | 12.090 | 12.320 | 13.518 | 14.845 | 16.317 |  |
| 6.959 | 8.147 | 10.116 | 10.731 | 12.091 | 12.338 | 13.525 | 14.860 | 16.320 |  |
| 6.960 | 8.169 | 10.127 | 10.748 | 12.100 | 12.356 | 13.542 | 14.861 | 16.348 |  |
| 6.962 | 8.175 | 10.153 | 10.814 | 12.109 | 12.420 | 13.678 | 14.863 | 16.352 |  |
| 6.970 | 8.179 | 10.161 | 10.815 | 12.110 | 12.431 | 13.842 | 14.865 | 17.414 |  |
| 7.411 | 8.180 | 10.165 | 10.860 | 12.114 | 12.500 | 13.854 | 14.871 | 17.421 |  |
| 7.490 | 8.300 | 10.172 | 10.862 | 12.117 | 12.872 | 13.872 | 14.942 | 17.430 |  |
| 7.516 | 9.053 | 10.193 | 10.915 | 12.118 | 13.000 | 13.933 | 14.944 | 17.432 |  |
| 7.527 | 9.061 | 10.196 | 10.957 | 12.120 | 13.200 | 13.940 | 14.950 | 17.463 |  |

See also German Branch Report for freqs used January to March [available in past Newsletters also] If you have any queries please do not hesitate to ask either Peter or Jochen

## EDITORIAL

Welcome all to Issue 63.
Well, the past two months or so have been full of quite remarkable happenings in the world, from major Earthquakes to widespread Civil Revolt.
We are always interested as to how any of these events may affect our wider hobby.
Sometimes we see clear evidence, and sometimes not, in the activities of the stations that interest us.
Within all this upheaval the area of particular interest here at E2k has been centred around North Africa/ Middle East, as this is the believed location of two of Number Stations.

In Newsletter 62 we remarked in the Comment Section that ongoing events in Lebanon were worth keeping an eye on - we did not expect, and neither did anybody else, the whole region to start falling apart within a matter of days.

From Tunisia eastwards through to Iran and Southwards to Yemen populations have risen up against their repressive governments, protestors have voiced their frustrations in others, dictators have fled their countries and civil conflict is ongoing with extensive bloodshed being reported.
It is difficult to think that there is no central catalyst at work instigating these situations yet there is no evidence, yet, to support such a theory - other than the 'Domino Effect'

Under such conditions we could reasonably have expected to see these events effect the behaviour of some Number Stations -IT HAS NOT - up to the end of February.

But see Comment
Enjoy, once again, our efforts
Paul \& Mike L

## The quick roundup

We have received information that there are more Digital counterparts to Number Stations than we first thought, the Cuban SK01 transmissions being a typical example of one of these.
They range through the Sat, UHF, VHF \& HF bands.
Here at E2k we have a specific interest for those transmissions in the HF bands.
Some have already been identified, but are encrypted, so we will be developing this aspect of our hobby over the coming months, and give members guidance when possible.
Unid1 CW (MWKJ) still there on 3343 as reported last issue
Unid2 CW (KTR4) (R10) 3207//3860, 13.15z (previously L6YC heard here)

## Comment

A BOMBSHELL - E10 has gone.
If you read the group mails you could not have missed the flurry of activity.
(Timewise not strictly belonging in this issue but very important)
The night of Feb $28^{\text {th }}$ - Mar $1^{\text {st }}$ was the last time an E10 transmission was logged, despite intensive monitoring of all the current, and previously known, freqs since then nothing has been heard.

This event, or non-event, prompted a number of members to express opinions as to the possible reasons why the station should suddenly cease after so many years of operation, particularly as Israel is one of the few countries in the region not affected by the current widespread wave of unrest.

The views ranged through 'maintenance' ‘equipment failure' 'sabotage' 'political decision' to 'alternative systems'.

Has E10 gone Digital ? - there's no traffic on the known HF freqs.
Has it gone to SatCom - not our area of expertise
Is the extra traffic on the HEW ALE network in any way related ?
The list of questions is extensive but one fact remains - any system other than a HF broadcast, be it Voice or CW is vulnerable. It requires an agent to have equipment, other than a basic domestic radio, that under investigation would be suspicious or will leave an identifiable electronic trail in the system used.

This brings us back to two questions we have asked ourselves many times over the years, for a variety of reasons.

Was E10 an Israeli operation ?
Are Number Stations what we think they are ?. Some associated developments question this belief.
We will be watching any developments very carefully.

## GERMAN BRANCH REPORT

2011 - the year of the numbers station history - The report from E2K's German Branch (E2Kde) and X06 team
Hallo liebe Freunde und Kollegen der deutschen Branche und des X06 Teams von E2K (Hello dear friends and colleagues of E2K’s German Branch and the X06 team)

For ENIGMA2000's German Branch (E2Kde), 2011 is the great year of the numbers station history, and this report will tell you why. Also we have actual news from the scene, followed by the X06 section at the end.

Very interesting old numbers stations found
The recordings of Karl-HeinzE2Kde (see EN 62) are now online at
http://www.geheime-welten.de/index.php?page=thread\&postid=14301\#post14301 or http://www.simonmason.karoo.net/page525.htm

Big thanks go to ThomasE2Kde in Northern Germany, who managed to do this "online service". The series contains the recordings from May 1980 and also Thomas' recordings from the mid-80s. Partially, you can find FULL numbers messages of G16 stations. This is a real "treasure case" for friends of historical numbers stations. But not enough with this interesting stuff: Christopher Gross, an American hobbyfriend, who followed my invitation to E2K and is now member of our group, also has very interesting numbers stations and a music piece on G16 "Zulu Golf". His first recordings come from 1979 and bring very early versions of E05 "Cynthia", which are less known to younger people. You can find these stations at:
http://www.christophergross.com/RADIO and the song at
http://www.christophergross.com/ZG.mp3 (only instrumental). Also he will upload more stations in the near future. Thanks Chris, please keep them coming!
E2Kde meeting planned for April
On April $23^{\text {rd }}$ (Easter Saturday), E2Kde will reach out its $3^{\text {rd }}$ official meeting, this time in Erfurt/Eastern Germany. One 15 year young youth belongs to our orga team: Sven (FreakE2Kde), Kalbe/Eastern Germany. He organized, that a newspaper article appeared on February $25^{\text {th }}$ in the "Volksstimme", Magdeburg, which is available (in German) at
http:///www.volksstimme.de/vsm/nachrichten/sachsen anhalt/sachsen anhalt/?em cnt=1953498
Sven wants to build up a driving community from his QTH to Erfurt with people of the region (incl. Halle, Magdeburg, Thuringia, Saxonia, Berlin, Brandenburg, perhaps Mecklenburg-Vorpommern or Lower Saxonia). So if you are interested in our meeting and come from there, please contact Sven via his homepage www.sven-freitag.de.

Of course, all E2K members are most welcome at our meeting. It will be most interesting to learn hobbyfriends, who we only know from e-mails or chats. For all of you, who can't be present at our meeting, Sven will install a liv-stream, that you can here and see us in Erfurt. We'll keep the group posted about the exact link. The meeting could be a preparation for the great E2K meeting in the UK, which we want to reach out eventually this year (perhaps in summer).

Transmission about numbers stations in German internet radio
On March $16^{\text {th }}$, there will be a transmission in the German internet radio www.rockradio.de. Between 1500 and 1600 UTC there will be a short contribution about numbers stations, where Kopf will be interviewed for. The interview will be made on March $3^{\text {rd }}$ via telephone. Perhaps some more hobbyfriends from the Berlin region, where the station is sitting, will be asked about the subject.

## X06 section

As you will see in our logs section, X06 stays very active. That's the reason, why our X06 team will reach out a new "logging week" next month as already happened in 2007, to get more X06 transmissions and frequencies. In these days, many new freqs were used by X06. A list of X06 freqs is attached to this report.

| X0 | ) logs section |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Day UTC | Freq | Scale | Monitor | Comments |
| 20110106 | Thu 2030 | 8777 | 1--6- | Mikesndbs | X06b, then XPL in the same duration |
| 20110111 | Tue 1011-1016 | 13510 | 612534 | Hans/N0 | Alert type 2(1) Fair with QRM |
| 20110111 | Tue 1017-1018 | 11025 | 612534 | Hans/NO | 2(2) Strong |
| 20110112 | Wed 0950-0951 | 14970 | 216354 | Hans |  |
| 20110112 | Wed 0951-0957 | 14871 | 156234 | Hans |  |
| 20110112 | Wed 1158-1203 | 12200 | 241563 | Peter/UK | Alert 1(1) Weak to fair |
| 20110112 | Wed 1217-1225 | 12200 | 241563 | Peter/UK | 1(2) S9+ |
| 20110112 | Wed 1232 | 10815 | 241563 | Peter | S9+, shortie (55 secs) |
| 20110112 | Wed 1551-1552 | 13940 | 156234 | Peter | Weak |
| 20110113 | Thu 0939-0941 | 13506 | 164531 | Peter | S9+ |
| 20110113 | Thu 1350-1359 | 12207 | 215346 | Peter | Strong with background QRM (AM/USB) |
| 20110114 | Fri 0852-0911 | 10653 | 356412 | Peter | Strong |
| 20110114 | Fri 0953-0957 | 17463 | 256134 | Peter | S8-9, fading to S4 at the end |
| 20110122 | Sat 1532-1545 | 12195 | 314265 | Peter | S1, peaking occasionally to S4 |
| 20110122 | Sat 1544-1545 | 11411 | 164532 | Peter | Good (parallel to 12195 kHz) |
| 20110122 | Sat 1558-1559 | 11525 | 156234 | Peter | Good |
| 20110124 | Mon 0948 | 10372 | 431625 | Fritz/CH | Monitored in progress |
| 20110124 | Mon 1448 | 11440 | 215346 | Peter | Alert 2(1) Shortie - fair to good |
| 20110124 | Mon 1453-1457 | 9351 | 216354 | Hans | Weak with some fading |
| 20110124 | Mon 1458-1500 | 9076 | 215346 | Hans | 2(2) S9+ |
| 20110126 | Wed 1320-1327 | 13961 | 216354 | Peter, Hans | Fair to weak |
| 20110126 | Wed 1343-1359 | 9076 | 215346 | Hans | Fair |
| 20110126 | Wed 1406-1410 | 14871 | 156234 | Peter | S5-7 |
| 20110126 | Wed 1558-1600 | 10714 | 156234 | Peter | S3 |
| 20110127 | Thu 0945-0948 | 11411 | 164532 | Hans | Fair |
| 20110131 | Mon 1230-1335 | 10730 | 123456 | Peter, Mike | X06c - S3-5 peaking S9+10 |
| 20110202 | Wed 1056-1059 | 18346 | 214356 | Peter | S9, recorded in AM |
| 20110202 | Wed 1615-1619 | 11525 | 156234 | Peter | S3 |
| 20110202 | Wed 1652-1653 | 10731 | 314265 | Peter | Poor S2 |
| 20110203 | Thu 1232-1233 | 16132 | 352416 | Peter | S4 with fading |
| 20110205 | Sat 1516-1523 | 12213 | 615243 | RNGB | Alert 2(1) Monitored i. p. |
| 20110205 | Sat 1523-1530 | 14863 | 615243 | RNGB | 2(2) |
| 20110207 | Mon 0737-0739 | 14825 | 641523 | Hans | Weak when found, rised to S9+ |
| 20110207 | Mon 1636-1638 | 11438 | 532614 | Peter | CROWD36 afterwards* |
| 20110208 | Tue 1007-1011 | 11025 | 612534 | Hans | Weak |
| 20110211 | Fri 1034-1036 | 15822 | 256134 | Peter | Alert 2(1) Rare freq - fair |
| 20110211 | Fri 1043 | 15828 | 256134 | Peter, Hans | 2(2) Shortie - poor/UK, fair/N0 |
| 20110215 | Tue 0909 | 11462 | 165423 | Hans | 30 sec shortie on rare freq |
| 20110215 | Tue 1111-1121 | 18206 | 246531 | Peter | S3-7 peaking S9+ in AM/USB |
| 20110216 | Wed 1100-1110 | 17489 | 561423 | Kopfe2Kde | Strange scale (LSB?) under BC stn |
| 20110216 | Wed 1114-1223 | 14970 | 216354 | Kopf, Peter, Linkz/FR | S2 peaking S7 and clear in AM |
| 20110218 | Fri 0925-0928 | 14570 | 324615 | Hans | Strong with hum |
| 20110218 | Fri 1004-1007 | 12215 | 361245 | RNGB |  |
| 20110218 | Fri 1031-1034 | 18204 | 625413 | Peter | Alert 2(1) S3 peaking S7, new freq |
| 20110218 | Fri 1035-1036 | 14824 | 625413 | Hans | 2(2) Weak to fair |
| 20110218 | Fri 1201-1210 | 11090 | 123456 | RNGB | X06c on new freq |
| 20110219 | Sat 1012-1014 | 14631 | 362154 | Hans | Strong - rare freq |
| 20110220 | Sun 1113 | 16223 | 164532 | Linkz |  |


| 20110221 | Mon 1200-1310 | 12300 | 123456 | Peter |  | X06c, S4-7 \& many breaks of 1-2mins |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20110221 | Mon 1656 | 10714 | 156234 | Peter |  | Shortie of only 4 secs (no rec.) |
| 20110222 | Tue 0920-1010 | 12300 | DASH! | Kopf, | Hans | Long dash in the same length as X06 |
| 20110222 | Tue 1053-1055 | 11025 | 612534 | Peter |  | Alert 2(1) S3-5 |
| 20110222 | Tue 1058 | 13510 | 612534 | Hans |  | 2(2) Shortie (30 secs) |
| 20110222 | Tue 1144-1146 | 14871 | 156234 | Peter |  | S3-6 good |
| 20110222 | Tue 1519-1521 | 13940 | 156234 | Peter |  | Weak |
| 20110222 | Tue 1527-1529 | 10731 | 314265 | Peter |  | Good |
| 20110224 | Thu 0748-1004 | 12300 | 1-4-5- | Hans, Kopf | Peter | X06b, weak to fair** |
| 20110224 | Thu 1119-1148 | 12300 | 1-4-5- | Hans, Kopf | Peter | Comeback, fair to strong |
| 20110224 | Thu 1148-1152 | 12300 | 1--6-- | Hans, Kopf | Peter | Changing into only 2 tones |
| 20110225 | Fri 0928-0929 | 14863 | 615243 | Kopf |  | S9 |
| 20110225 | Fri 1034-1038 | 17463 | 256134 | Peter |  | Alert 2(1) S3-5 |
| 20110225 | Fri 1041-1045 | 19611 | 256134 | Peter |  | 2(2) S2-5 |

-     * 2 mins after X06: CROWD36 with S7-8, after a break of 30 secs more CROWD36, but only with S4.
** Voices in Spanish during the transmission (hams?).
Wow, that's again much interesting X06 stuff. In the next report you'll find more about it - and of course about our Erfurt meeting. Till then I say as usual "Auf Wiedersehen" and "Good-bye"

Jochen Schäfer, KopfE2Kde and X06 Teamkopf

## Morse Stations

Freqs are generally + - 1 k
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 in this issue.

M01/1 XIV MCW, hand (197 sked from Nov - Feb)
Will change to M01/2 sked ID 463 for Mar/Apl)
No repeat mssgs sent
Deliberate ? errors becoming more complicated - looks as if the training course is ending !

| 5810 | 15.00 z |  | 02 Jan | ' 197 ' for 2.5 min then stops. ?? |
| :---: | :---: | :---: | :---: | :---: |
| 5230 | 18.00 z |  | 04 Jan | '197' $65430==66784$, fair,slow, noise, exlt op |
| 4490 | 20.00z |  | " | '197' $81530==56784$, fair, slow, noise, exlt op |
| 5230/4490 18.00/2 |  | 06 Jan |  | '197' both with 3 min call-up |
| 5810 | 15.00z |  | 08 Jan | '197' again only 3 min call-up |
| 5465 | 07.00z |  | 09 Jan | '197' this one sends a LONGER 4m20s call ?? |
| 5230 | 18.00z |  | 11 Jan | '197' $25430=$ = 14577, good, slow, exlt op |
| 4490 | 20.00z |  | " | '197' $62630==19469$, strong, QRM |
| 5810 | 15.00 z |  | 16 Jan | '197' $31130==19555$, fair, b/c QRM |
| 5320 | 18.00 z |  | 20 Jan | '197' $43530==47397$, weak, fast, early start |
| 4490 | 20.00z |  | " | '197' $71230==81216$, strong, fast, early start |
| 5320 | 18.00z |  | 27 Jan | '197' $90930==66513$, strong, v.fast, erratic |
| 4490 | 20.00z |  | " | '197' $37630=$ 57797, good, v.fast, stops gp 6 |
| 5810 | 15.00 z |  | 29 Jan | '197' $17730==85304$, strong, fast, early start |
| 5465 | 07.00z |  | 30 Jan | '197' $36030==79764$, strong, fast, late start |
| 5230/5320 18.00z |  | 01 Feb |  | '197' $14930=69519$ starts on wrong freq |
| 4490 | 20.00z |  | 03 Feb | '197' $43030==09981$ |
| 5464 | 07.00z |  | 06 Feb | '197' $33930=662734$ |
| 5320 | 18.00z |  | 08 Feb | '197' $24530==78376$, strong, slow, exlt op |
| 4490 | 20.00z |  | " | '197' $62830==21051$, fair, fast exlt op |
| 5810 | 15.00z |  | 12 Feb | '197' $35930==41435$, strong, fast exlt op |
| 5465 | 07.00z |  | 13 Feb | '197' $79230==53994$, strong, med, exlt op |
| 5810 | 15.00 z |  | 19 Feb | '197' $97730==00594$, strong, exlt op |
| 5320 | 18.00 z |  | 24 Feb | '197' $53130==53440$, strong, v.fast, exlt op |
| 4490 | 20.00z |  | " | '197' $80230=$ 56649, strong, fast, exlt op |
| 5810 | 15.00z |  | 26 Feb | ' 197 ' $60730==12331$, strong, fast |

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

M01b
Messages repeated

| 5940 | 16.05z | 06 Jan | '159' $37330==$ |
| :---: | :---: | :---: | :---: |
| 2466//3545 | 19.32z | " | '910' $54932=$ |
| 5810 | $16.15 z$ | 07 Jan | ' 158 ' $37330=40356$ |
| 2653//3197 | 20.02z | 07 Jan | '866' $54932==31710$ |
| 2435//3520 | 19.10z | 10 Jan | '853' $54932==31710$ |
| 2427//3205 | 20.15z | " | '375' $54932==31710$ |
| 2405//3180 | 21.10z | 21 Jan | '610' $54932==31710$ |
| 3197 | 19.30z | 28 Jan | '866' $54932==31710$ |
| 2655//3197 | 20.02z | 04 Feb | '866' $91230==32733$ |
| 2406//3180 | 21.10z | " | '610' $91230==32733$ |
| 2435//3521 | 19.10z | 07/14 Feb '853' 9 | $30=-32733$ |
| 2427//3206 | 20.15z | 14/21 Feb '375' 9 | $30=-32733$ |
| 5938 | 16.05z | 17 Feb | ' 159 ' $69230=69609$ |
| 2471//3546 | 19.32z | " | '910' $91230==32733$ |
| 2486 | 20.42z | " | '382'912 $30=$ = 32733 |
| 5810 | $16.13 z$ | 18 Feb | ' 158 ' $69230=$ = 69609 strong sig |
| 3545 | 19.32z | 24 Feb | '910' $81230==32733$ |
| 3160 | 20.42z | " | '382' $91230==32733$ |
| 2435 | 19.10 z | 28 Feb | '835' 91230 |
| 3205 | 20.15z | " | '375'91230 |
| M01c |  |  |  |
| This odd one from FN |  |  |  |
| 5468 | 14.24 z | 18 Jan | i/p ending |
|  |  | $84846=57840111055741119851511154429111000$ |  |
| 5812 | 15.05 z | 05 Feb | i/p ending 3432927330000 , fast sending |
| 4642 | 17.43z | 11 Feb | i/p ending 0650311920111000 |
| 4039 | $16.25 z$ | 17 Feb | 017x3 22327 rptd, |
| M03 III ICW, some CW |  |  |  |
| 5358 | 11.40 z | 04/11/15 Jan | 786/00 |
| 5358 | $15.35 z$ | 04 Jan | $790 / 37=19288$ |
| 4828 | $11.15 z$ | $06 \mathrm{Jan} / 02 / 03 / 09 \mathrm{Feb}$ 650/00 |  |
| 5358 | 15.44 z | 08 Jan | $790 / 37=19288$ |
| 4828 | 11.15 z | 13 Jan | $651 / 38=-73586$ |
| 4828 | $11.15 z$ | 04/18Jan/22 Feb | 272/00 |
| 5358 | 15.35 z | 11/15/18/2 Jan/12 Feb798/00 |  |
| 4828 | 08.21z | 21 Jan | 768/31 = = 11814 |
| 4828 | $11.15 z$ | 23 Jan | Wrongly sent a G11 - or was it ? |
| 4828 | 08.20z | 28 Jan/11/13 Feb | 761/00 |
| 4828 | 08.20z | 04 Feb | $766 / 36=-47828$ |
| 5358 | 11.40 z | 05 Feb | 786/00 |
| 4828 | 13.30z | 13 Feb | $431 / 38=27214$ |
| 4828 | $11.15 z$ | 24 Feb | $657 / 36=-46605$ |

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 Slatens charts.
Freqs
5800, 6825, 9063, 9112, 9153, 10432, 12180, 13380
Above use/are MCW
6785, 6854, 7519, 7554, 8009, 8096, 8135, 9505 (New), 10445, 10715, 10857, 11565, 12115, 12134, 13375

## M08c

No reports

M08d
No reports

M12 IB ICW, some MCW / CW, short 0 . Reuses many freqs year on year.
To be read in conjunction with Brians included monthly charts.
New ID's may be only for the month/sked shown, but not necessarily unknown, all are clearly identified on Brians charts. The reason for their reuse, some after long periods of time, is unknown


M12a (two message variant)
These entries are a good example of the M12a behaviour for repeat messages. The first message in one TX becomes the second of the next TX. See Brians charts for further detail.

| A few marathon TXs |  |  |  |
| :---: | :---: | :---: | :---: |
| 4443/5043/5843 | 04.40/05.09/39z | 18 Jan | 408923141 |
|  |  |  | 408358183 |
| " | 04.40/05.05/31 | 20 Jan | 408985117 |
|  |  |  | 408923141 |
| " | 04.40/05.08/37 | 25 Jan | 408184193 |
|  |  |  | 408985117 |
| 5872/6772/7672 | 04.40/05.17/55 | 10 Feb | 876506219 |
|  |  |  | 8768517227 |
| 5872/6772/7672 | 04.40/05.14/48z | 17 Feb | 876138163 |
|  |  |  | 876576233 |

M14 IA MCW / ICW / MCWCC, short 0

| 7/21 Jan | none of the $1^{\text {st }}$ Friday skeds heard |  |  |
| :---: | :---: | :---: | :---: |
| 4636 | 18.20z | 11 Jan | $18636415=6453798243$ |
| 4762 | 19.20z | 12 Jan | $74898715=45376$ (note same numbers used) |
| 5561 | 09.00z | 05/12/19 Feb | 17143115 = 35264 |
| 5895 | 08.00z | 08 Feb | 17800000 ( Old ID back again) |
| 4636 | 18.21z | 08 Feb | 18629515 = 23165, weak |
| 4762 | 19.20z | 09 Feb | 74894815 = 23876, weak |

M14a (two message variant)
No reports
M18 IC
No reports
M23
5182(poss) 15.07 z
04 Jan
clg 123 , ends 15.17 z
$\begin{array}{ll}5182 / / 6961 & 15.05 z \\ 5182 / / 6961 & 08.01 \mathrm{z} \\ 9069 & 09.00 \mathrm{z} \\ 4030 & 16.28 z\end{array}$

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

| 8167 | 15.10z | 02 Feb | 05846359 = 81779 (same ID as E06 in Dec) |
| :---: | :---: | :---: | :---: |
| 4496 | 18.00z | 17 Feb | i/p clg 801 |
| 8189/6776 17.00/30z | 18 Feb | $38195740=02202$ |  |
| 8188/6786 17.00/30z | 22 Feb | 38127645 |  |
| 6786 | 17.30z | 24 Feb | $38152930=80856$ |
| 8189/6786 17.00/30z | 26 Feb | 38147950 |  |
| 8189/6786 17.00/30z | 28 Feb | $38179542=55564$ |  |

$\underline{\text { M24a }}$ as M24 with $2^{\text {nd }}$ addressee hand keyed, rarely intercepted.
No reports

M44
No reports
M45/1 XIV (Nov-Feb) MCW, slow, hand, paired gps
Will change to M45/2 for Mar - Apl, ID 525 on 4555//4955
4025
4025

M76 O Uses 'barred' letters, difficult in Europe under an XJT

| Nice catches from GD |  |  |
| :--- | :--- | :--- |
| 3819 | 17.50 z | 04 Jan |
| 3819 | 17.50 z | 06 Jan |$\quad$| i/p HFTC de 5??? QTC 00833 |
| :--- |
| IDMU de RYK8 QTC 010 34, 958 |
| and J-PL, using various Global Tuners |
| decent readable copy |

## M87 $\mathbf{O}$

No reports

M89 0
The 'VVV x3' calls and 'QSA' endings are still being sent. The reason for this variation remains unknown.

| 4523 | $19.55 z$ | 07 Jan | V QPZM de WOXN |
| :--- | :--- | :--- | :--- |
| $4860 / / 6840$ | 20.19 z | 09 Jan | VVV Q2M de NYX |
| 4523 | 12.14 z | 14 Jan | V QPZM de WOXN |
| 3297 | 12.17 z | $"$ | V GKVZ de Q7NW |
| $4860 / / 6840$ | 12.20 z | " | VVV Q2M de NYZ |
| 4532 | 18.07 z | 19 Jan | V JA3L de UN2T |
| 4368 | 20.04 z | 27 Jan | V MB3R de YA6X |
| $4225 / / 5500$ | 17.09 z | 02 Feb | V 7NPE de QV5B |
| $4860 / / 6840$ | 17.20 z | $"$ | VVV Q2M de NYZ |
| 7602 | $19.55 z$ | 22 Feb | V DKG6 de 3A7D |

M94 CW, MCW, partner station to V24
No reports
SK01 (Data Mode generic classification, Cuban TX's)
See comments in Issue 49 which still apply, and dj's log mails.
5390, 5800, 5810, 5898, 5930, 5947, 6768, 7890, 8180, 8186, 9040, 9063, 9112 (new)11432, 11435, 11532
From our SK01 backroom boys we receive this most interesting report [tnx Anons]:
Information came to us in the past few months that a previously received SK01 message could be decoded. After reviewing the file in question we determined that this was indeed the case.

How do we decode the message? Take the original file 28142439.txt
The file is in binary format and when viewed in a text viewer such as windows notepad it looks like this.
b■ L
wftIRFpwvse22yu2,gfhyfF22wftifF2,,egyf22\% $2 \ldots$..v,,swe22gyxpswegsyx2†se22WHPF!! + xigife,sy22ipig,,..if222p,styvif22f...,s,,yfD22hi222eg...i,hy22sxf,,, ...ggsyxif!! + ,igsfsf,,iF22€,igsfe22gyxhsgsyxif22p,styvif22hifi22,ievsE22 e,fi2gyx2iv!! + €yvvyF22€,y`swe2,,y,,„svve22fi,e2ix22VPGU24SU4D22ix,,,iqehy2€y ,2,,s2...v,,swy! + €exF2gyxps,we2,igi€gsyx2†se2WHPF2...x2ef,e y2qF!! + !! + ! + ! ! +! + ! + \&

After viewing the file in a binary decoder and translating it into hexadecimal format we end up with the following. Thanks also to our spanish translator we can read also see the message in English. Lots of food references it seems.
28142349.txt

62080103
MSJ14. FMLIA OK RCBDOS . MSJES. TACOS Y ULTIMA CONFIMACION
VIA 902 . N ECES ARIO EFECTUES FRIJOLES BURRITOS, DE ACUERDO INSTRUCCIONES
RECIBISTE. PRECISA CONDICIONES FRIJOLES DEBE
REALIZARSE CON ELPOLLO. PROXIMA TORTILLA SERA EN $82 / 7$
"57", ENTREGADO POR TI ULTIMO PAN. CONFIRMA RECEPCION VIA 902. UN
ABRAZO G.

Or in English

MSJ14 FAMILY OK RECEIVED. MESSAGES. TACOS AND LAST CONFIRMATION VIA 902 NECESSARY TO DO REFRIED BEANS, ACCORDING TO THE RECEIVED INSTRUCTIONS. PRECISE CONDTIONS BEANS MUST (TO) REALIZE WITH HIM CHICKEN, NEXT TORTILLA WILL BE IN 82/7 "57", DELIVERED FOR YOU LAST BREAD. CONFIRM RECEPTION VIA 902. A HUG G

13101310131013101310131026

The backroom boys wrote a program to compare all messages that had been received. One other showed a similar pattern and was also decoded.
28908006.txt

6208010400
MSJ15. FMLIA OK RCBDO . CORREO Y MSJES . OK . EN PROXIMOS
FRIJOLES PRECISA POSIBILIDAD EL NI B2 09 O ASISTA TOKS PORXIMA
OPORTUNIDAD, EN LUGAR VIPS COMO INICI ALMENTE HABIAMOS PREVISTO.
PARA FRIJOLES TOKS UTILIZA 82/7 "98", REGISTRADO 86/2. SUBRAYA
NECESIDAD ASISTAN FRIJOLES CHEF Y CAFETERO. CONFIRMA RECEPCION VIA 902. UN ABRAZO G.
And in English
MSJ15 FAMILY OK RECEIVED MAIL AND MESSAGES OK. IN NEXT BEANS PRECISE
POSSIBILITY THE NI B2 09 O TO ASSIST TOKS NEXT OPORTUNITY, IN PLACE VIPS
AS WE PREVIOUSLY TALK FORESEE, TO BEANS TOKS (wonder if TOKS means T OK's?) USE 82/7 "98"
REGISTERED 86/2, UNDERLINE NECESSITY TO ASIST BEANS CHEF AND
CAFETERIA MAN. CONFIRM RECEPTION VIA 902.
A HUG G.
13101310131026

So there we have it, two decoded messages. Also note that 28142349.txt was sent in August 2009 and 28908006 in September 2009, the message numbers are 14 and 15 respectively. No other messages follow this pattern. These may have been sent in the clear in error.

Tnx rest: BR, DoK, FN, FS, Gert, GN, HFD, HS, MoK, MP, MS, PoL, PP, Westli.

## VOICE STATIONS

E06 [1A]
PoSW writes, "Not much from the E06 English speaking man in the UK evening time these days, a mere shadow of his former self, remembering that not so very long ago there were regular schedules on Sundays, Tuesdays and Thursdays and going back a bit further there were schedules with strong signals on Saturday afternoons, UK time.

First + Third Thursdays in the Month 2030 UTC Schedule:-
6-Jan-11:- $4,836 \mathrm{kHz}$, a "stop and start" call-up, single " 321 " after 2030 and 30s UTC, plain carrier otherwise, another " 321 " just before 2032z, then " 639639 ", then call " 321 "
relatively normally until after 2034z, DK/GC "639 6391515 ". Distortion / scratching noise on the speech, noted before on these Thursday and Friday schedules. Not a very impressive effort! "35247 $8539139846948265492609243386742935612098098761654398451482051652804635 . "$

20-Jan-11:- $4,836 \mathrm{kHz}$, a late start, call-up did not get going until after 2031z, " 321 " and " 6396391515 ", same as on the $6^{\text {th }}$.

3-Feb-11:- 4,836 kHz, call "321", DK/GC "796 796 15 15". "23197 47630 4635275648143201547328718463092875014372132653842012351 12187 87548".

17-Feb-11:- $4,836 \mathrm{kHz}$, " 321 " and "796 7961515 ", as on the $3^{\text {rd }}$. Weak signal, difficult copy.
Friday following the First + Third Thursdays 2130 UTC Schedule:-
7-Jan-11:- 4,760 kHz, call "472", DK/GC "108 10815 15".

21-Jan-11:- $4,760 \mathrm{kHz}$, started approx. 30 seconds after the half hour, "472" and "108 1081515 " again.

4-Feb-11:- 4,760 kHz, call "472", DK/GC "123 123 15 15". "25390 574638691436286241758473645362019874756328453354738725645362 12439 15207"

18-Feb-11:- 4,760 kHz, "472" and "123 1231515 " again, weak signal as was yesterday's
2030 z sending. Strange that these should both be so weak, yesterdays 2150 z E07 in the same part of the short-wave spectrum, $4,483 \mathrm{kHz}$ was an S9+ signal.

Followed by RNGB's log:

## January log:

| Sunday | 2nd | 01.30 | 5783 | 7598203102687871602089792073 15881..... 97761 |
| :---: | :---: | :---: | :---: | :---: |
| Thursday | 6th | 07.00 | 15810 | $1394561076627667167002941877979970 . \ldots .69673$ |
|  |  | 20.32 | 4836 | 321639153524785391398469482654926092433867429356 12098.... 04635 |
| Friday | 7th | 21.30 | 4760 | 472108152651918724197531874310987154271987226349 87354..... 50987 |
| Sunday | 9th | 01.30 | 5783 | 7592683154356637245629448491 |
| Weds | 12th | 19.20 | 4036 | 82900000 |
| Sunday | 16th | 01.30 | 5783 | $759861328015303339406286731594070 \ldots . . .24932$ |
| Friday | 21st | 21.30 | 4760 | 472108152651918724197531874310987154271987226349 87354..... 50987 |
| Sunday | 23rd | 01.30 | 5783 | 759182304025553393401929428163084 .... 28921 |
| Thursday | 27th | 07.00 | 15810 | 13900000 |

## February log:

| Thursday | 3rd | 20.30 | 4836 | $321796152319747630463527564814320 \ldots . . .87548$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Friday | 4th | 21.30 | 4760 | $472123152539057463869143628624175 . \ldots .15207$ |
| Saturday | 5th | 01.30 | 5846 | $759428369725021625494237937433459 \ldots . .60720$ |
| Weds | 9th | 19.20 | 4036 | 82900000 |
| Saturday | 12th | 01.30 | 5846 | 759108431062729057012883250212138 |
| Sunday | 13th | 12.20 | 5913 | 82900000 |
| Thursday | 17th | 07.00 | 17470 | $702356997534201200384932535430756 \ldots . \ldots 34749$ |
|  |  | 20.30 | 4836 | $321796152319747630463527564814320 \ldots . .87548$ |
| Saturday | 19th | 01.30 | 5846 | $759416303916518174092198499894448 \ldots . .41003$ |

Others'Logs:
January 2011

| 4480 kHzz 0230 z | 16/01[759 8613280153 ... 249328613200000 9f 0] 0140z Strong, PLTQRM2 (was 4489kHz) |
| :---: | :---: |
| 0230z | 22/01[759 1823040255 ... 2892118230 00000(f)]0239z Fair, QRM2 |
| $4489 \mathrm{kHz0230z}$ | 01/01[759 8203102687 ... 9776182031 00000(f)] 0240z Strong |
| 0230z | 02/01[759 8203102687 ... 9776182031 00000(f)] 0240z Strong |
| 0230z | 08/01[759 268315435663724 .... 7867626831 00000] Fair, QSB2 |
| 0230z | 09/01[759 2683154356 ... 7867626831 00000(f)] 0240z Strong |
| 0230z | 29/01[759 60234054526 ... 658256023400000 (f)] 0240z Strong, QRM2 |
| 0230z | 30/01[759 60234054526 ... 6582560234 00000(f)] 0240z Fair/strong, QRM2 |
| 4760 kHz 2040z | 21/01[123456789 123456789 ..] Testing txm |
| 2130z | 21/0 [472 10815 26519] |
| 4836kHz 2031z | 20/01[321 63915 35247] Audio badly clipped |
| 5783kHz0130z | 01/01[759 8203102687 ... 9776182031 00000(f)] 0140z Strong |
| 0130z | 02/01[759 8203102687 ... 977618203100000 (f)] 0140z Weak to fair |
| 0130z | 08/01[759 268315435663724 .... 7867626831 00000] Strong |
| 0130z | 09/01[759 2683154356 ... 7867626831 00000(f)] 0140z Strong, PLTQRM3 |
| 0130z | 15/01[759 8613280153 ... 2493286132 00000(f)] 0140z Strong, QRM2, QSB3 |
| 0130z | 16/01[759 8613280153 ... 2493286132 00000(f )] 0140z Very weak, QRM2 |
| 0130z | 22/01[759 1823040255 ... 289211823000000 (f)]0139z Strong |
| 0130z | 23/01[759 1823040255 ... 2892118230 00000(f)]0139z Strong, QRM2/3 |
| 0130z | 29/01[759 60234545265715931956 ........ 65825] |
| 0130z | 30/01[759 60234054526 ... 6582560234 00000(f)] 0140z Weak, QSB2 |
| 15810 kHz 0700 z | 27/01[139 00000] vy weak signal |


| 4760kHz 2130z | 04/02[472 1231525390 ... 1520712315 00000(s)] Fair, QRM2 |
| :---: | :---: |
| 2130z | 18/02[472 1231525350 ... 1520712315 00000(s)] 2137z Fair |
| 4817kHz 0230z | 05/02[759 4283697250 ... $607204283600000(f)] 0240 z$ Strong, QRM2 |
| 0230z | 12/02[759 1084310627 ... 9059910843 00000(f)] 0242z Strong |
| 0230z | 19/02[759 4163039165 ... 410034163000000 (f)] 0239z Very strong |
| 0230z | 26/02[759 3684126993 ... 3347436841 00000(f)] 0141z Very strong |
| 0230z | 27/02[759 3684126993 ... 3347436841 00000(f)] 0141z Very strong |
| $4820 \mathrm{kHz} \mathrm{0230z}$ | 06/02[759 428369725021265 ...... 60720] Weak signal |
| $4822 \mathrm{kHz} \mathrm{0230z}$ | 13/02[759 1084310627 ... 9059910843 00000(f)] 0242z Very strong |
| 4836kHz2030z | 03/02[321] OM bad modulation, scratchy. QSA3 |
|  | 32175615 |
|  | 2315747630463527564814320 |
|  | 1547328718463052875014372 1326538420123511218787548 |
|  | 1326538420123511218787548 $7561500000-$-slow zeroes 2037 z [G06 under transmission] |


| (9m46s) | PLdn | SUN |
| :--- | :--- | :--- |
| $(9 \mathrm{~m} 26 \mathrm{~s})$ | PLdn | SAT |
|  |  |  |
| $(9 \mathrm{~m} 44 \mathrm{~s})$ | PLdn | SAT |
| (9m49s) | PLdn | SUN |
|  | Hans, PLdn | SAT |
| $(9 \mathrm{~m} 37 \mathrm{~s})$ | Hans, PLdn | SUN |
| $(10 \mathrm{~m} 06 \mathrm{~s})$ | PLdn | SAT |
| $(10 \mathrm{~m} 06 \mathrm{~s})$ | PLdn | SUN |
|  |  |  |
|  | FN | FRI |
|  | FN | FRI |
|  |  |  |
|  | FN | THU |
| $(9 \mathrm{~m} 44 \mathrm{~s})$ | PLdn |  |
| $(9 \mathrm{~m} 49 \mathrm{~s})$ | PLdn | SAT |
|  | Hans, PLdn | SUN |
| $(9 \mathrm{~m} 37 \mathrm{~s})$ | PLdn | SAT |
| $(9 \mathrm{~m} 49 \mathrm{~s})$ | PLdn, FN | SUN |
| $(9 \mathrm{~m} 46 \mathrm{~s})$ | PLdn | SAT |
| $(9 \mathrm{~m} 26 \mathrm{~s})$ | PLdn | SUN |
| $(9 \mathrm{~m} 26 \mathrm{~s})$ | PLdn | SAT |
|  | DanAr, PLdn | SUN |
| $(10 \mathrm{~m} 06 \mathrm{~s})$ | PLdn, DanAr | SAT |
|  |  | SUN |
|  | FN | THU |

## February 2011

| (8m08s) | PLdn | FRI |
| :--- | :--- | :--- |
| $(6 \mathrm{~m} 48 \mathrm{~s})$ | PLdn, HJH | FRI |
|  |  |  |
| $(10 \mathrm{~m} 27 \mathrm{~s})$ | PLdn | SAT |
| (11m36s) | PLdn | SAT |
| (9m21s) | PLdn | SAT |
| (11m16s) <br> (11m16s) | PLdn | PLdn |
|  | DATAr | SUN |
| (11m36s) | PLdn | SUN |
|  |  |  |
|  | JanO, FR | SUN |
|  |  |  |

PoSW sends his logs:
Sunday + Wednesday Schedule:-
2-Jan-11, Sunday:- 1800 UTC, $6,774 \mathrm{kHz}$, presumably the first sending, no voice heard, frequencies in January of past years were $6,774+5,836+4,893$ kHz
1820 UTC, $5,836 \mathrm{kHz}$, "788 788788 000", just about audible.
9-Jan-11, Sunday:- 1800 UTC, $6,774 \mathrm{kHz}$, no voice heard, carrier QRT 1808 and 25 s UTC.
1820 UTC, $5,836 \mathrm{kHz}$, second sending, E07 OM just audible but unreadable.
1840 UTC, $4,893 \mathrm{kHz}$, "788 788788 1" heard, everything else unreadable.
12-Jan-11, Wednesday:- 1800 UTC, $6,774 \mathrm{kHz}$, "788 788788000 ", readable for a change!
1820 UTC, $5,836 \mathrm{kHz}$, second sending, low audio but readable.
16-Jan-11, Sunday:- 1820 UTC, $5,836 \mathrm{kHz}$, "788 788788000 ", S9+ carrier with low audio and slight background buzz.
19-Jan-11, Wednesday:- 1800 UTC, $6,774 \mathrm{kHz}$, "788 788788 1", DK/GC "102 34", weak signal, difficult copy. Short message, all done by $1806 z$. 1820 UTC, $5,836 \mathrm{kHz}$, second sending, slightly stronger signal.
1840 UTC, $4,893 \mathrm{kHz}$, third sending, best of the three.
6-Feb-11, Sunday:- 1820 UTC, $6,863 \mathrm{kHz}$, presumably the second sending of the schedule since frequencies in February of past years were $7,697+6,863$ $+5,938 \mathrm{kHz}$, very low audio, unable to copy.

13-Feb-11, Sunday:- 1800 UTC, $7,697 \mathrm{kHz}$, S9 carrier but unable to hear the voice. Thought a different receiver using ancient technology might make a difference so tuned an old vacuum tube radio to 7,697 , but the line-up of $6 \mathrm{~J} 7 \mathrm{~s}, 6 \mathrm{~K} 7 \mathrm{~s}$ and a 6 V 6 G gave much the same result as all that silicon! 1820 UTC, $6,863 \mathrm{kHz}$, second sending, sounded like " 000 " although the carrier stayed on until just after 1824 z .

Monday + Wednesday Schedule:-
12-Jan-11, Wednesday:- 2000 UTC, $6,982 \mathrm{kHz}$, "981 981981 000".
2020 UTC, $5,882 \mathrm{kHz}$, should be the second sending but severe interference from an S9+
broadcaster on 5,885 .
19-Jan-11, Wednesday:- 2000 UTC, 6,982 kHz, "981 981981 000".
24-Jan-11, Monday:- 2000 UTC, 6,982 kHz, "981 981981 000", better than usual audio.
2020 UTC, $5,882 \mathrm{kHz}$, second sending, just readable through the BC QRM.
31-Jan-11, Monday:- 2000 UTC, 6,982 kHz, "981 981981 000".
7-Feb-11, Monday:- 2020 UTC, $6,924 \mathrm{kHz}$, frequencies in February last year were $7,724+6,924+5,824 \mathrm{kHz}$, carrier only, no voice could be heard.
14-Feb-11, Monday:- 2000 UTC, $7,724 \mathrm{kHz}$, "798 798798000 ", with reasonable / readable audio. Carrier QRT 2002 and 29s UTC.
2020 UTC, $6,924 \mathrm{kHz}$, second sending, S9 signal, audio low but readable, carrier stayed on until 2023z.
Thursday Schedule:-
6-Jan-11:- 2130 UTC, $5,449 \mathrm{kHz}$, "744 744744000 ", S9 signal with better than usual audio, second sending.
13-Jan-11:- 2110 UTC, $6,777 \mathrm{kHz}$, "744 744744000 ", weak signal but with unusually good audio.
2130 UTC, $5,449 \mathrm{kHz}$, second sending, also with good audio. Noises off from RAF VOLMET on 5,450. On tuning up 1 kHz the YL voice had a noticeable rapid flutter effect, as did Shannon on 5,505 which suggests an auroral event was in progress.

20-Jan-11:- 2110 UTC, 6,777 kHz, "744 744744 000".
27-Jan-11:- 2110 UTC, 6,777 kHz, "744 744744 000".
10-Feb-11:- 2110 UTC, $6,777 \mathrm{kHz}$ and 2130 UTC, $5,449 \mathrm{kHz}$, "744 744744000 ", both transmissions with good audio.
17-Feb-11:- 2110 UTC, $6,777 \mathrm{kHz}$, "744 744744 1"- a full message, somewhat unusually for this schedule, DK/GC "739 79". Weak signal but with good modulation.
2130 UTC, $5,449 \mathrm{kHz}$, second sending, somewhat stronger signal.
2150 UTC, $4,483 \mathrm{kHz}$, third sending, S9+ with good audio, best sending of the three.
Wednesday E07a SSB Schedule:-
5-Jan-11:- 2100 UTC, $5,864 \mathrm{kHz}$, "815 815815164137 " - always a 5 F group in the call-up preamble with E07a for some reason - DK/GC " 490 75". 2120 UTC, $5,164 \mathrm{kHz}$ and 2140 UTC, $4,564 \mathrm{kHz}$, repeats in case we didn't get it the first time, all three strong upper side-band suppressed carrier signals.

12-Jan-11:- 2100 UTC, $5,864 \mathrm{kHz}$ and 2120 UTC, $5,164 \mathrm{kHz}$, "815 815815000 ".
19-Jan-11:- 2100 UTC, $5,864 \mathrm{kHz}$ and 2120 UTC, $5,164 \mathrm{kHz}$, "815 815815000 ", both transmissions weaker signals than usual.
9-Feb-11:- 2120 UTC, $5,164 \mathrm{kHz}$, "815 815815000 ", second sending, strong signal.

## Followed by RNGB's Logs:

January log:

| Sunday | 2nd | 18.00 | 6774 | 78800000 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Weds | 5th | 18.00 | 6774 | 7888775753346906011973512374 |
|  |  | 18.20 | 5836 | 7888775753346906011973512374 |
| Thursday | 6th | 08.01 | 5416 | 48900000 |
|  |  | 21.10 | 6777 | 74400000 |
| Sunday | 9th | 18.00 | 6774 | 7888775753346906011973512374 |
|  |  | 18.40 | 4893 | 7888775753346906011973512374 |
| Weds | 12th | 20.00 | 6982 | 98100000 |
|  |  | 21.00 | 5864 | 81500000 |
| Weds | 19th | 18.00 | 6774 | 7881023424909433211531878029 |
|  |  | 20.20 | 5882 | 98100000 |
|  |  | 21.00 | 5864 | 81500000 |
| Sunday | 23rd | 18.00 | 6774 | 7881023424909433211531878029 |
| Monday | 24th | 20.00 | 6982 | 98100000 |
| Thursday | 27th | 08.00 | 5416 | 48900000 |
|  |  | 08.20 | 5816 | 48900000 |
| Sunday | 30th | 18.00 | 6774 | 78800000 |

February log:

| Thursday | 3rd | 08.00 | 5867 | 87300000 |
| :--- | :--- | :--- | :--- | :--- |
| Sunday | 6th | 18.00 | 7697 | 68900000 |
| Weds | 9th | 18.00 | 7697 | 68900000 |
| Thursday | 10th | 05.50 | 5846 | 18800000 |
|  |  | 21.10 | 6777 | 74400000 |
| Sunday | 13th | 18.00 | 7697 | 68900000 |
| Monday | 14th | 20.00 | 7724 | 79800000 |
| Weds | 16th | 18.20 | 6863 | 68900000 |
| Thursday | 17th | 21.10 | 6777 | 7447397906385127718040917080 |
|  |  | 21.30 | 5449 | 7447397906385127718040917080 |
| Tuesday | 22nd | 08.00 | 5867 | 87300000 |
| Sunday | 27th | 18.00 | 7697 | 68900000 |
| Monday 28th | 20.00 | 7724 | 79800000 |  |
|  |  |  |  |  |
| E07a |  |  |  |  |
|  |  |  |  |  |
| Thurs 27th Jan | 06.10 | 6846 | $1881641374907517550278702833541898 \ldots . .56865$ |  |
| Thurs 3rd Feb | 06.10 | 6846 | $188161512468891001381645416247330148626 . \ldots . .92670$ |  |
| Weds 16th Feb | 21.20 | 5164 | $81516151250467615125042680581033233833188389 . . . .74882000000$ |  |

## Others' Logs:

## January 2011

| 4893kHz 1840z | 05/01[788 $187757-$--- ... 53346000 000] 1848z Fair, QRM2/3 | (8m15s) | PLdn | WED |
| :---: | :---: | :---: | :---: | :---: |
| 1840z | 19/01[788 11023424909 ... 16793000 000] Strong | (5m59s) | FN, PLdn, bxms | WED |
| 5416 kHz 0800 z | 04/01[489 000]Fair, TTYQRM3 | (2m14s) | PLdn | TUE |
| 0800z | 06/01 Fair blank carrier only |  | PLdn | THU |
| 0800z | 11/01[489 000] Fair | (2m13s) | PLdn | TUE |
| 0800z | 27/01[489 489489 000] at 0757z short sequence of what sounded like the two XPA intro tones |  | FN | THU |
| 5449 kHz 2130 z | 06/01[744 000] Weak VOLMETQRM2 FR, |  | PLdn | THU |
| 2130z | 13/01[744 000] 2132z Fair | (2m13s) | PLdn | THU |
| 2130z | 20/01[744 000] Moderate to strong signal, moderate noise, no QSB VOLMET in background |  | FR, PLdn | THU |
| 2130z | 27/01[744 000] 2132z Fair | (2m13s) | PLdn | THU |
| $5816 \mathrm{kHz} \mathrm{0820z}$ | 04/01[489 000]Strong | (2m14s) | Hans, PLdn | TUE |
| 0820z | 06/01[489 000] Weak audio, strong carrier | (2m13s) | PLdn | THU |
| 0820z | 11/01[489 000] Strong |  | Hans | TUE |
| 0820z | 13/01[489 000] Strong |  | Hans, PLdn | THU |
| 0820z | 18/01[489 000]Fair | (2m13s) | PLdn | TUE |
| 0820z | 27/01[489 489489 000] |  | FN | THU |
| $5836 \mathrm{kHz} \mathrm{1820z}$ | 02/01[788 000] S8 mixed with BC |  | Mndbs | SUN |
| 1820z | 05/01[788 $187757-$--- ... 53346000 000] 1828z Fair, QRM2/3 | (8m15s) | PLdn | WED |
| 1820z | 12/01[788 000] 1822z Weak, HETQRM2 | (2m14s) | PLdn | WED |
| 1820z | 16/01[788 000] QSB |  | FR, PLdn | SUN |
| 1820z | 19/01[788 11023424909 ... 16793000 000] Odd character, HET/BCQRM3/4 | (5m59s) | FN, PLdn | WED |
| 1820z | 23/01[788 11023424909 .. 16793000 000] Strong, QSB |  | FR | SUN |
| 1820z | 26/01[788/000] Strong signal, moderate noise |  | FR | WED |
| $5882 \mathrm{kHz} \mathrm{2020z}$ | 10/01[981 000] 2022z Strong, BCQRM2 | (2m14s) | PLdn | MON |
| 2020z | 17/01 Carrier, BC\&HETQRM3 | (2m16s) | PLdn | MON |
| 2020z | 24/01[981981981 000] |  | FN | MON |
| 2020z | 26/01 [988/000] Very strong signal, weak noise |  | FR | WED |


| $6774 \mathrm{kHzz} \mathrm{1800z}$ | 02/01[788 000] S9 AM best in USB poor audio |  | Mndbs | SUN |
| :---: | :---: | :---: | :---: | :---: |
| 1800z | 05/01 QRM5 |  | PLdn | WED |
| 1800z | 12/01[788 000] 1802z Weak, QRM3 | (2m14s) | PLdn | WED |
| 1800z | 16/01 Carrier and noise |  | FR | SUN |
| 1800z | 19/01[788 11023424909 ... 16793000 000] Strong | (5m59s) | FN, PLdn | WED |
| 1800z | 23/01[788 11023424909 .. 16793000 000] Strong, QSB |  | FR | SUN |
|  | 78810234 |  |  |  |
|  | 24909433211531878029240373934429684263314299812862 |  |  |  |
|  | 54638430954187332205441500965935616096697486546226 |  |  |  |
|  | 32254335309135388413761203970157758220588838034911 |  |  |  |
|  | 72230686186591816793000000 |  |  |  |
| 1800z | 26/01 Blank Carrier |  | FR | WED |
| 1800z | 30/01 [788 000] Strong carrier, low audio, moderate noise |  | FR | SUN |
| 6777 kHzz 2110 z | 20/01[744 000] Moderate signal strenght, the usual fading |  | FR, FN | THU |
| 2110z | 27/01[744 000] |  | HJH | THU |
| 6916 kHzz 0800 z | 18/01[489 000] Weak | (2m13s) | PLdn | TUE |
| 6982 kHz 2000z | 10/01[981 000] AM best in LSB S7 |  | Mndbs | MON |
| 2000z | 17/01 Strong carrier only | (2m26s) | PLdn | MON |
| 2000z | 24/01[981981981 000] |  | FN, PLdn, MalcF | MON |
| E07a |  |  |  |  |
| 4564 kHz 2140 z | 05/01[815 $1641374907517550 \ldots 56865000$ 000] 2149z Very strong | (8m45s) | PLdn | WED |
| 2140z | 26/01[815 1641374907517550 ... 56865000 000]Very Strong, |  | FR, HJH, PLdn | WED |
| 5146kHz 0530z | 06/01[188 $1641374907517550 \ldots 56865000$ 000] 0539z Very strong | (8m45s) | PLdn, Hans | THU |
| 0530z | 13/01[188 000] 0532z Fair, BCQRM2 | (2m16s) | PLdn | THU |
| 0530z | 20/01[188 000] Strong | (2m13s) | PLdn | THU |
| 0530z | 27/01[188 1641374907517550 ... 56865000 000] Strong |  | FR, FN | THU |
| 5164 kHzz 2120 z | 05/01[815 1641374907517550 ... 56865000 000] 2129z Strong | (8m45s) | PLdn | WED |
| 2120z | 12/01[815 000] 2122z Strong | (2m16s) | PLdn | WED |
| 2120z | 19/01[815 000]Fair, PLTQRM2 | (2m13s) | PLdn | WED |
| 2120z | 26/01[815 1641374907517550 ... 56865000 000] Very Strong, |  | FR, HJH, PLdn | WED |
| 5846 kHz 0550z | 06/01[188 1641374907517550 ... 56865000 000] 0559z Very strong, locaQRM2 | (8m45s) | PLdn, Hans | THU |
| 0550z | 13/01[188 000] 0552z Strong | (2m16s) | PLdn | THU |
| 0550z | 20/01[188 000] Strong QRM4 | (2m13s) | PLdn | THU |
| 0550z | 27/01[188 $1641374907517550 \ldots 56865000$ 000] Strong,QSB at end |  | FR, FN | THU |
| 5864 kHzz 2100 z | 05/01[815 $1641374907517550 \ldots 56865000$ 000] 2109z Strong, BCQRM2 | (8m45s) | PLdn | WED |
| 2100z | 12/01[815 000] 2102z Fair, BCQRM2 | (2m16s) | PLdn | WED |
| 2100z | 19/01[815 000]Fair, HET/BCQRM3 | (2m13s) | PLdn | WED |
| 2100z | 26/01[815 1641374907517550 ... 56865000000 ] Fair, QRM twds end 81516413749075 |  | FR, HJH, PLdn | WED |
|  | 17550278702833541898276555955641184924387530955506 |  |  |  |
|  | 79871856309200595771782867183171078948591683770763 |  |  |  |
|  | 70075928305873416625997610027312724999212472708664 |  |  |  |
|  | 80465168325989403848966205585639075843357532920489 |  |  |  |
|  | 53906960878161360576838705261390904654187317170980 |  |  |  |
|  | 05895918870111219167397882902388907914685155466731 |  |  |  |
|  |  |  |  |  |
|  | 5558064362781248241056865000000 |  |  |  |
| 6846 kHzz 0610 z | 06/01[188 $1641374907517550 \ldots 56865000$ 000] 0619z Strong | (8m45s) | PLdn, Hans | THU |
| 0610z | 27/01[188 1641374907517550 ... 56865000 000] Strong, QRM2 |  | FR, FN | THU |

February 2011
E07

| 4483kHz 2150z | 17/02[744 17397906385 ... 46768 00000]2200z Strong | (10m26s) | PLdn | THU |
| :---: | :---: | :---: | :---: | :---: |
| 5449 kHz 2130 z | 03/02[744 000] 2132z Strong, QSB2 | (2m13s) | FR, PLdn | THU |
| 2130z | 03/02[744 000] 2132z Strong, | (2m15s) | PLdn | THU |
| 5767 kHz 0820 z | 08/02[873 873873 000] |  | FN | TUE |
| 5867 kHzz 0800 z | 01/02[873 000] |  | FN | TUE |
| 0800z | 08/02[873 873873 000] |  | FN | TUE |
| 0800z | 24/02[873 873873 000] |  | FN | THU |
| 6767 kHzz 0820 z | 01/02[873 000] |  | FN, Hans | TUE |
| 0820z | 03/02 [873 873873 000] |  | FN, FR | THU |
| 0820z | 24/02[873 873873 000] |  | FN | THU |

Here is an excellent and complete log from FR in the US with rest of schedule shewn too.
[PLdn also heard the 2130 z send but no VOLMETQRM]

744173979
0638512771804091708003977
2581610059812937368814396 1669847137796512835322697 16580402314851485233754526 9481510244633454614071894 94815102463345614071894 2294636355811004669533625 9304636355811004669533625 8718128858348209839724068 4890363644804606152879063 2291053204540214014812515 6988614425078362796029070 9025182618161329943985405 7417658316227109298943779 2111187923129043995085660 9185062645387645325329874 76057902555169746768 000000

6777 kHz 2110 z
6863kHz 1820z
1820 z
1820z
1820z
16/02[689 000] Fair, DATAQRM2
1820 z 20/02[689 000]
1820 z 23/02[689 000] 1822z Fair, DATAQRM4
1820z 27/02 [689 000] Weak, DATAQRM2

6924kHz 2020z
2020z
2020z
2020z

7697 kHz 1800z
1800z
1800z
1800z
1800 z
1800z
1800z
1800z
7724 kHz 2000 z
2000z
2000z
2000z
10/02[744 000] very strong signal, very weak noise
02/02[689 689689 000]
06/02 [?] carrier present but no audio
09/02[689 000]Strong audio
13/02[689 689689 000]

02/02[798 000] 5/5 carrier, audio low, QRM
09/02[798 000] Strong signal, weak noise
16/02[798 000] 2022z Fair
23/02[689 000] 2022z Strong

02/02[689 689689 000]

09/02[689 000]Strong carrier, weak audio
13/02[689 689689 000]
16/02[689 000] Weak audio, QRM2
20/02[689 000] 1802z
23/02[689 000] 1802z Fair
27/02 [689 000] Medium signal strength, weak noise
02/02 [?] strong noise
07/02 Carrier only, down 2002z Strong
09/02 [?] No carrier, no audio, weak noise
16/02 [carrier only]

06/02[689 000] 4/5 carrier, constant fading, moderate to weak noise

|  | FR | THU |
| :---: | :---: | :---: |
|  | FN, FR | WED |
|  | FR, FN | SUN |
| (2m13s) | PLdn, FR | WED |
|  | FN, FR | SUN |
| (2m14s) | PLdn | WED |
|  | FR, PLdn | SUN |
| (2m13s) | PLdn | WED |
|  | PLdn | SUN |
|  | FR, PLdn | WED |
|  | FR | WED |
| (2m13s) | PLdn | WED |
| (2m13s) | PLdn | WED |
|  | FN, FR | WED |
|  | FR, FN | SUN |
| (2m13s) | PLdn, FR | WED |
|  | FN, FR | SUN |
| (2m14s) | PLdn, FN | WED |
| (2m13s) | PLdn, FR | SUN |
| (2m13s) | PLdn | WED |
|  | FR | SUN |
| (2m27s) | FR | WED |
|  | PLdn | MON |
|  | FR | WED |
|  | FN | WED |

## E07a

| 4564 kHz 2140 z | 02/02[815 1615124688910013 ... 92670000 000] 2150z Fair |
| :---: | :---: |
| 2140z | 16/02[815 $1615125046750426 \ldots 74882000$ 000] 2148z Strong |
| 5146kHz 0530z | 03/02[815 1615124688910013 ... 92670000 000] 0540z Very weak |
| 0530z | 10/02[188 000] Strong |
| 0530z | 17/02[188 $1615125046750426 \ldots 74882000$ 000] 0538z Strong |
| 0530z | 24/02[188 000] Fair/Strong |
| 5164 kHz 2120 z | 02/02[815 1615124688910013 ... 92670000 000] 2130z Strong |
| 2120z | 09/02[815 000] Strong |
| 2120z | 16/02[815 $1615125046750426 \ldots 74882000$ 000] 2128z Strong |
| 2120z | 23/02 [815 000]Strong |
| 5846 kHz 0550 z | 03/02[815 1615124688910013 .. 92670000 000] Very weak |
| 0550z | 10/02[188 000] Strong |
| 0550z | 17/02[1881 $615125046750426 \ldots 74882000$ 000] 0558z Strong |
| 0550z | 24/02[188 000]Very strong |
| 5864 kHz 2100z | 02/02[815 1615124688910013 ... 92670000 000] 2110z Strong, BCQRM3 |


| (9m53s) | PLdn, FR | WED |
| :--- | :--- | :--- |
| (8m03s) | PLdn | WED |
| (9m53s) | PLdn, FR | THU |
| (2m15s) | PLdn, FR, SL | THU |
| (8m03s) | PLdn | THU |
|  | Hans, PLdn, SL | THU |
|  |  |  |
| (9m53s) | PLdn, FR | WED |
| (2m14s) | PLdn, FR, FN | WED |
| (8m03s) | PLdn | WED |
| (2m13s) | PLdn | WED |
| (9m53s) | PLdn, FR | THU |
| (2m15s) | PLdn, FR, FN, SL | THU |
| (8m03s) | PLdn | THU |
| (2m13s) | SL, PLdn | THU |
| $(9 m 53 s)$ | PLdn, FR | WED |

81516151246889
10013816454162473301486268186540923839004122376453
85644218373904543273028967277295346428586338452987 35318100722119943665236563481607339976285296954704 28161532163054364440357585387227790627428760167660 53449325375423488950104430917004798574298374657998 64469089160828239600003124316721668313021407628103 19518232450457969525027552107991349356566518744478 85322076232049722952364811666413159237739259315260
731544990134927724372962495728425006332292670
000000 [from FR]
$5864 \mathrm{kHz} 2100 \mathrm{z} \quad$ 09/02[815 000] Strong
$2100 z \quad 16 / 02[8151615125046750426 \ldots 74882000000] 2108 z$ Strong
$2100 z \quad 23 / 02$ [815 000]Strong

| $(2 \mathrm{~m} 14 \mathrm{~s})$ | PLdn, FR | WED |
| :--- | :--- | :--- |
| $(8 \mathrm{~m} 03 \mathrm{~s})$ | PLdn, GD | WED |
| $(2 \mathrm{~m} 13 \mathrm{~s})$ | PLdn | WED |

18816151246889
10013816454162473301486268186540923839004122376453
85644218373904543273028967277295346428586338452987
35318100722119943665236563481607339976285296954704
28161532163054364440357585387227790627428760167660
53449325375423488950104430917004798574298374657998
64469089160828239600003124316721668313021407628103
19518232450457969525027552107991349356566518744478
85322076232049722952364811666413159237739259315260
731544990134927724372962495728425006332292670
000000 [From FR] Note, FR's sigs were Strong, with noise across schedule.

## E07a 6846kHz weak in GB, strong in US:

On 03/02 in msg nr 31578 Fox gave his logs as
$5146 \mathrm{kHz} 0530 \mathrm{z} 03 / 02$ [see below] Strong signal, USB, weak noise
$5846 \mathrm{kHz} 0550 \mathrm{z} 03 / 02$ [see below] Strong signal, USB, weak noise, some interference at the beginning $6846 \mathrm{kHz} 0610 \mathrm{z} 03 / 02$ [see below] Strong signal, very strong noise

The initial 0530 z transmission in received in GB was fair. Some QRM was evident but to no degredation of the received signal; 0550 z was very weak, but audible whilst 0610 z was almost inaudible. Unusually at 0600 z two very strong tones were sent; easily S9 and observed by PLdn:


The red line designates the frequency. Strangely the actual message transmission was very weak, inaudible in places. There was little or no QRM on 6846 kHz and one has to ask if the signal weakness is due to the vagaries of propogation or what.

## E10 Desk Report for January and February 2011

Frequencies (KHz) used by E10 Stations since 19th March 2010

| Time | ART | EZI | PCD | ULX | YHF |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 00:00 | No Reports | No Reports | No Reports | No Reports | 2844/3150/3840/4270/4560 |
| 00:30 | 2456/3415/3840/4165 | No Reports | 4270 | No Reports | No Reports |
| 01:00 | No Reports | 6840/7690 | No Reports | No Reports | No Reports |
| 01:30 | No Reports | No Reports | No Reports | No Reports | 2844/3840/4560/6840/7690 |
| 02:00 | 3415/3840/5435 | No Reports | No Reports | 2743/4880 | 3840 |
| 02:30 | No Reports | No Reports | No Reports | No Reports | 2844/3150/3415/3840/4560 |
| 03:00 | No Reports | No Reports | 2515/3130/3150/4270/7690 | No Reports | No Reports |
| 03:30 | No Reports | 3150/6840/7690/9130 | No Reports | No Reports | No Reports |
| 04:00 | No Reports | No Reports | 3150/4270 | No Reports | No Reports |
| 04:30 | 5435/6986 | No Reports | No Reports | No Reports | 4560/5820/7918 |
| 05:00 | No Reports | No Reports | No Reports | No Reports | 7918 |
| 05:30 | No Reports | No Reports | No Reports | No Reports | 7918/9202 |
| 06:00 | No Reports | 6840/7690 | No Reports | No Reports | No Reports |
| 06:30 | No Reports | 6840/7690 | No Reports | No Reports | No Reports |
| 07:00 | No Reports | No Reports | No Reports | No Reports | 4560/5820/7690 |


| 07:30 | No Reports | No Reports | 6498 | No Reports | No Reports |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 08:00 | No Reports | No Reports | No Reports | No Reports | No Reports |
| 08:30 | No Reports | 6840/7690 | No Reports | No Reports | No Reports |
| 09:00 | No Reports | No Reports | No Reports | No Reports | No Reports |
| 09:30 | No Reports | No Reports | No Reports | 6270 | No Reports |
| 10:00 | No Reports | No Reports | No Reports | No Reports | No Reports |
| 10:30 | No Reports | No Reports | No Reports | 6270/7760 | No Reports |
| 11:00 | No Reports | No Reports | No Reports | No Reports | No Reports |
| 11:30 | No Reports | No Reports | No Reports | No Reports | No Reports |
| 12:00 | 6986 | No Reports | No Reports | No Reports | 9202/10648 |
| 12:30 | No Reports | 9202/13533/15980 | No Reports | No Reports | 9202 |
| 13:00 | No Reports | 6840/7690/9202/10648 | No Reports | No Reports | No Reports |
| 13:30 | No Reports | No Reports | No Reports | No Reports | 9202/10648 |
| 14:00 | No Reports | No Reports | No Reports | No Reports | 5820/7918/9202/10648 |
| 14:30 | No Reports | 5820/6840/7690/9202/10648 | No Reports | No Reports | No Reports |
| 15:00 | No Reports | No Reports | 5170/6498/6840 | No Reports | No Reports |
| 15:30 | No Reports | No Reports | No Reports | 5170/5230/5270/6270/6720 | No Reports |
| 16:00 | 3840/4165/5435 | No Reports | No Reports | No Reports | No Reports |
| 16:30 | 16305 | No Reports | No Reports | No Reports | 3840/4560/5435 |
| 17:00 | 3415/3840/5435 | No Reports | No Reports | No Reports | No Reports |
| 17:30 | No Reports | No Reports | No Reports | 3270/4880/5435 | No Reports |
| 18:00 | No Reports | 6840/9130 | No Reports | No Reports | No Reports |
| 18:30 | No Reports | 6840/9130 | 3150/4270 | No Reports | No Reports |
| 19:00 | 3150/4270 | No Reports | 3150/4270 | No Reports | No Reports |
| 19:30 | 5435/6986 | No Reports | 3150/4270 | 5820/7918 | 3840/5820/7918/10648 |
| 20:00 | 3415/5435 | No Reports | 3150/4270 | 2744/3270/4270/4880 | No Reports |
| 20:30 | 5435/6986 | 3270/4270/6840/9130 | 6498 | No Reports | No Reports |
| 21:00 | No Reports | 6840 | 4270/6498/6840/9130 | No Reports | No Reports |
| 21:30 | 3415 | No Reports | 4270 | 2743/3270/4270/4880/6840 | No Reports |
| 22:00 | 3415/4270/4880/5435/6498 | No Reports | No Reports | 4880 | No Reports |
| 22:30 | No Reports | 3415/4270/5435/6840/7690 | No Reports | No Reports | No Reports |
| 23:00 | No Reports | No Reports | No Reports | 2743/3270/4880/7690 | No Reports |
| 23:30 | No Reports | No Reports | 2515/3150/4270 | No Reports | No Reports |

Key

| Slot logged within the last 2 months |
| :--- |
| Last log for this slot was received more than 2 months ago |
| No logs for this slot have been received |

ABC

| Date | Time | Callsign | Frequency(s) | Message | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 / 07 / 2010$ | $22: 45$ | ABC | 5265 | 2 | Hans S |

HNC

| Date | Time | Callsign | Frequency(s) | Message | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 19/05/2010 | $15: 23$ | HNC | 6575 | Z | Hans S |

TMS

| Date | Time | Callsign | Frequency(s) | Message | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $03 / 03 / 2009$ | $07: 58$ | TMS | 6428 | None | Manolis |

ART

| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16/03/2010 | 00:00 | ART | 18 | IZJZG | 3415 | DanielE2Kde | 04/02/2010 |
| 15/01/2011 | 00:30 | ART | 52 | TDDTJ | 3415 | Kroger | 15/01/2011 |
| 17/01/2011 | 00:30 | ART | 60 | ADVAN | 3415 | Kroger | 17/01/2011 |
| 22/02/2011 | 00:30 | ART | 72 | EPLOO | 3415/4165 | Hans S | 22/02/2011 |
| 10/03/2010 | 01:00 | ART | 22 | NXSFH | 3415 | DanielE2Kde | 10/03/2010 |
| 06/03/2010 | 01:30 | ART | 49 | RHIAW | 3415 | DanielE2Kde | 06/03/2010 |
| 14/01/2011 | 02:00 | ART | 94 | EASUD | 3840/5435 | Kroger | 14/01/2011 |
| 26/01/2011 | 02:00 | ART | 77 | JTVMY | 3415/5435 | AD | 26/01/2011 |
| 03/02/2011 | 02:00 | ART2 |  |  | 3415 | Hans S | 26/01/2011 |
| 22/02/2011 | 02:00 | ART | 58 | ERMHT | 3415/5435 | Hans S | 22/02/2011 |
| 27/02/2011 | 02:00 | ART | 25 | NKBPW | 5435 | Fox | 27/02/2011 |
| 28/02/2011 | 02:00 | ART | 97 | ENYQN | 3415/5435 | Hans S | 28/02/2011 |
|  | 02:30 |  |  |  |  |  |  |
| 06/03/2010 | 03:00 | ART2 |  |  | 2456/3415 | AlbinoDragon |  |
|  | 03:30 |  |  |  |  |  |  |
| 06/03/2010 | 04:00 | ART | 99 | LEIFI | 2456/3415 | AlbinoDragon | 06/03/2010 |
| 27/03/2010 | 04:30 | ART | 100 | EQGZB | 6986 | Kroger | 04/03/2010 |
| 04/03/2010 | 05:00 | ART2 |  |  | 4165 | Kroger |  |
| 04/03/2010 | 05:30 | ART2 |  |  | 5435 | Kroger |  |
| 13/02/2010 | 06:00 | ART2 |  |  | 5435 | E10 Desk |  |
| 01/03/2010 | 06:30 | ART | 17 | WOZKJ | 6986 | FrankE2KDe | 01/03/2010 |
| 07/11/2008 | 07:00 | ART | 100 | DDOWB | 5435 | Manolis | 07/11/2008 |
| 11/02/2010 | 07:30 | ART | 18 | LQBZX | 6986 | Baris | 11/02/2010 |
| 11/02/2010 | 08:00 | ART | 92 | ANHRT | 6986 | Baris | 11/02/2010 |
| 11/02/2010 | 08:30 | ART | 62 | MJFJP | 6986 | Baris | 11/02/2010 |
| 12/02/2010 | 09:00 | ART | 68 | JBDXM | 6986 | Baris | 12/02/2010 |
| 11/02/2010 | 09:30 | ART | 11 | ZEDBM | 6986 | Baris | 11/02/2010 |
| 11/02/2010 | 10:00 | ART | 100 | JIXII | 6986 | Baris | 11/02/2010 |
| 18/03/2009 | 10:30 | ART2 |  |  | 5435 |  |  |
|  | 11:00 |  |  |  |  |  |  |
| 11/02/2010 | 11:30 | ART | 88 | VURZL | 6986 | Baris | 11/02/2010 |
| 25/11/2010 | 12:00 | ART2 |  |  | 6986 | Mike L | 17/02/2010 |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11/02/2010 | 12:30 | ART2 |  |  | 6986 | Baris |  |
| 16/03/2010 | 13:00 | ART | 27 | PXQMT | 14000 | Hans S | 16/03/2010 |
| 11/02/2010 | 13:30 | ART | 16 | HMWPU | 6986 | Baris | 11/02/2010 |
| 11/02/2010 | 14:00 | ART | 13 | IXRGC | 6986 | Baris | 11/02/2010 |
| 09/03/2010 | 14:30 | ART | 7 | LKMSH | 6986 | ElmarE2Kde | 27/02/2010 |
|  | 15:00 |  |  |  |  |  |  |
| 06/11/2009 | 15:30 | ART | 11 | WGEIU | 3415/4165 | Sam | 06/11/2009 |
| 10/01/2011 | 16:00 | ART | 14 | JCVHZ | 5435 | udxf_y255 | 10/01/2011 |
| 12/01/2011 | 16:00 | ART | 66 | ITYCT | 5435 | Mike L | 12/01/2011 |
| 09/02/2011 | 16:00 | ART | 26 | RAGKP | 5435 | Mike L | 09/02/2011 |
| 27/02/2011 | 16:00 | ART | 49 | IOUYC | 5435 | Fox | 27/02/2011 |
| 27/06/2010 | 16:30 | ART | 17 | SGBFR | 16305 | E10 Agent | 27/06/2010 |
| 09/02/2011 | 17:00 | ART | 60 | AOVOH | 5435 | Mike L | 09/02/2011 |
| 11/03/2010 | 17:30 | ART | 29 | WMVSL | 5435 | E10 Desk | 11/03/2010 |
| 02/03/2010 | 18:00 | ART | 49 | JZBQA | 5435 | E10 Desk | 02/03/2010 |
| 04/03/2010 | 18:30 | ART | 21 | IIXUA | 5435 | E10 Desk | 04/03/2010 |
| 24/11/2010 | 19:00 | ART2 |  |  | 4270 | Max S | 27/02/2010 |
| 21/06/2010 | 19:30 | ART | 60 | QUTRA | 6986 | DanielAR | 21/06/2010 |
| 19/04/2010 | 20:00 | ART | 23 | BOULM | 3415/5435 | Alan G | 19/04/2010 |
| 31/03/2010 | 20:30 | ART | 54 | BCTKD | 5435/6986 | Ary B | 31/03/2010 |
| 31/01/2010 | 21:00 | ART | 16 | EMJEX | 3415 | DanielE2Kde | 31/01/2010 |
| 13/07/2010 | 21:30 | ART2 |  |  | 3415 | Max S | 16/02/2010 |
| 08/01/2011 | 22:00 | ART | 17 | OJOES | 5435 | E10 Desk | 08/01/2011 |
| 12/01/2011 | 22:00 | ART | 52 | EBOCV | 3415/5435 | Mike L | 12/01/2011 |
| 13/01/2011 | 22:00 | ART | 66 | ITYCT | 5435 | Mike L | 13/01/2011 |
| 01/02/2011 | 22:00 | ART | 23 | AJGKZ | 3415/5435 | Alan G | 01/02/2011 |
| 02/03/2010 | 22:30 | ART | 18 | IZJZG | 3415 | E10 Desk | 23/01/2008 |
| 16/02/2010 | 23:00 | ART2 |  |  | 3415 | Kroger | 07/02/2010 |
| 14/03/2010 | 23:30 | ART2 |  |  | 3415/5435 | Manolis | 15/01/2010 |

EZI

| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $25 / 02 / 2010$ | $00: 00$ | EZI | 17 | WLTOY | 9130 | DanielAR | $25 / 02 / 2010$ |
| $01 / 09 / 2008$ | $00: 30$ | EZI2 |  |  | $6840 / 9130$ |  |  |
| $09 / 01 / 2011$ | $01: 00$ | EZI | 49 | EEYHL | $6840 / 7690$ | Hans S | $09 / 01 / 2011$ |
| $26 / 01 / 2011$ | $01: 00$ | EZI | 16 | GNVYA | $6840 / 7690$ | AD | $26 / 01 / 2011$ |
| $27 / 02 / 2011$ | $01: 00$ | EZI | 80 | FDNPR | 7690 | DanielAR | $27 / 02 / 2011$ |
| $08 / 03 / 2010$ | $01: 30$ | EZI | 74 | AKBUI | 7690 | DanielAR | $08 / 03 / 2010$ |
| $15 / 03 / 2010$ | $02: 00$ | EZI2 |  |  | 6840 | DanielAR | $06 / 03 / 2010$ |
| $13 / 03 / 2010$ | $02: 30$ | EZI | 14 | FTUPP | 6840 | W0ese | $13 / 03 / 2010$ |
| $04 / 03 / 2010$ | $03: 00$ | EZI | 15 | AATZM | 6840 | Kroger | $27 / 02 / 2010$ |
| $14 / 01 / 2011$ | $03: 30$ | EZI2 |  |  | $7690 / 9130$ | Kroger | $16 / 08 / 2010$ |
| $12 / 03 / 2010$ | $04: 00$ | EZI2 |  | 6840 | westt1us | $04 / 02 / 2010$ |  |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04/03/2010 | 04:30 | EZI | 10 | YAUDG | 6840 | Kroger | 04/03/2010 |
| 08/03/2010 | 05:00 | EZI | 67 | YKLBJ | 11565 | AlbinoDragon | 08/03/2010 |
| 04/03/2010 | 05:30 | EZI | 7 | RWXOQ | 6840 | Kroger | 04/03/2010 |
| 02/12/2010 | 06:00 | EZI2 |  |  | 6840/7690 | Alan G | 04/03/2010 |
| 24/02/2011 | 06:30 | EZI2 |  |  | 7690 | Hans S |  |
| 15/03/2010 | 07:00 | EZI2 |  |  | 9130/11565 | Alan G | 03/03/2010 |
| 03/03/2010 | 07:30 | EZI | 88 | RTSMT | 6840/7690 | AlbinoDragon | 03/03/2010 |
|  | 08:00 |  |  |  |  |  |  |
| 31/03/2010 | 08:30 | EZI | 51 | NWEED | 6840/7690 | Manolis | 31/03/2010 |
| 15/02/2010 | 09:00 | EZI | 78 | WQWBR | 7690 | Baris | 15/02/2010 |
| 09/03/2010 | 09:30 | EZI | 77 | QCUBI | 6840 | ElmarE2Kde | 09/03/2010 |
| 15/02/2010 | 10:00 | EZI | 37 | QCCHI | 7690 | Baris | 15/02/2010 |
|  | 10:30 |  |  |  |  |  |  |
|  | 11:00 |  |  |  |  |  |  |
| 15/12/2009 | 11:30 | EZI | 45 | MPMUO | 6840 | Baris | 15/12/2009 |
| 01/01/2010 | 12:00 | EZI2 |  |  | 6840/9130 | E10 Desk | 13/12/2009 |
| 11/01/2011 | 12:30 | EZI2 |  |  | 13533 | Hans S |  |
| 29/01/2011 | 13:00 | EZI | 16 | GNVYA | 9202 | Hans S | 29/01/2011 |
| 06/03/2010 | 13:30 | EZI2 |  |  | 21245 | Ary |  |
| 02/03/2010 | 14:00 | EZI1 |  |  | 6840/7690 | FrankE2KDe | 17/02/2010 |
| 01/01/2011 | 14:30 | EZI | 68 | BHGAJ | 7690 | Fox | 01/01/2011 |
| 12/01/2011 | 14:30 | EZI | 7 | MTPHX | 6840/7690 | Mike L | 12/01/2011 |
| 21/01/2011 | 14:30 | EZI | 73 | ZFFCB | 10648 | Hans S | 21/01/2011 |
| 02/03/2010 | 15:00 | EZI2 |  |  | 6840/7690 | FrankE2KDe |  |
| 22/02/2010 | 15:30 | EZI | 56 | MBQPI | 19715 | DanielAR | 09/02/2010 |
| 17/03/2010 | 16:00 | EZI2 |  |  | 6840/7690 | E10 Desk |  |
| 16/02/2010 | 16:30 | EZI | 93 | EZLSP | 9130 | Kroger | 03/09/2009 |
| 12/03/2010 | 17:00 | EZI2 |  |  | 9130 | E10 Desk | 13/10/2009 |
| 14/03/2010 | 17:30 | EZI2 |  |  | 13533 | DanielAR | 16/10/2009 |
| 10/01/2011 | 18:00 | EZI | 73 | MOAOM | 6840/9130 | E10 Desk | 10/01/2011 |
| 13/01/2011 | 18:00 | EZI | 42 | OCZKS | 6840/9130 | Mike L | 13/01/2011 |
| 15/01/2011 | 18:00 | EZI | 62 | QLELL | 6840/9130 | Kroger | 15/01/2011 |
| 22/01/2011 | 18:00 | EZI | 49 | EEHYL | 6840 | Fox | 22/01/2011 |
| 24/01/2011 | 18:00 | EZI | 73 | EKNBI | 6840 | Mark SA | 24/01/2011 |
| 05/02/2011 | 18:00 | EZI | 50 | WMIVH | 6840 | Fox | 05/02/2011 |
| 12/02/2011 | 18:00 | EZI | 32 | JEBRM | 6840 | Fox | 12/02/2011 |
| 16/02/2011 | 18:00 | EZI | 33 | FCJIN | 6840 | Mike L | 16/02/2011 |
| 26/02/2011 | 18:00 | EZI | 63 | PCXJB | 6840 | Fox | 26/02/2011 |
| 21/05/2010 | 18:30 | EZI2 |  |  | 6840/9130 | Sam | 09/03/2010 |
| 14/03/2010 | 19:00 | EZI | 68 | EGCXV | 9130 | DanielAR | 14/03/2010 |
| 12/02/2010 | 19:30 | EZI | 29 | PIGKY | 6840 | ElmarE2Kde | 12/02/2010 |
| 10/03/2010 | 20:00 | EZI2 |  |  | 6840 | E10 Desk |  |
| 09/01/2011 | 20:30 | EZI2 |  |  | 6840 | Mike L | 22/12/2010 |
| 11/01/2011 | 20:30 | EZI | 22 | WLPRM | 6840/9130 | Mike L | 06/11/2010 |
| 21/01/2011 | 20:30 | EZI | 68 | QYOQK | 3270 | Hans S | 21/01/2011 |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $10 / 02 / 2011$ | $20: 30$ | EZI | 22 | WLPRM | 6840 | Alessandro | $06 / 11 / 2010$ |
| $20 / 05 / 2010$ | $21: 00$ | EZI | 15 | XLGBC | 6840 | Sam | $20 / 05 / 2010$ |
| $10 / 03 / 2010$ | $21: 30$ | EZI | 21 | VVVUD | 7690 | Manolis | $07 / 12 / 2009$ |
| $14 / 03 / 2010$ | $22: 00$ | EZI2 |  |  | 7690 | DanielAR | $03 / 03 / 2010$ |
| $12 / 01 / 2011$ | $22: 30$ | EZI | 22 | WLPRM | $3415 / 5435$ | Mike L | $17 / 11 / 2010$ |
| $08 / 02 / 2011$ | $22: 30$ | EZI | 20 | YDGYT | 5435 | Kopf | $08 / 02 / 2011$ |
| $23 / 02 / 2011$ | $22: 30$ | EZI | 49 | QYRZG | 6840 | E10 Desk | $23 / 02 / 2011$ |
| $27 / 10 / 2009$ | $23: 00$ | EZI2 |  |  | 4270 | ElmarE2Kde |  |
| $15 / 03 / 2010$ | $23: 30$ | EZI | 11 | VJZFN | 9130 | DanielAR | $15 / 03 / 2010$ |

PCD

| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15/03/2010 | 00:00 | PCD | 15 | ATVCJ | 2515/3150 | Manolis | 01/01/2010 |
| 10/01/2011 | 00:30 | PCD2 |  |  | 4270 | RE | 15/03/2010 |
|  | 01:00 |  |  |  |  |  |  |
|  | 01:30 |  |  |  |  |  |  |
| 06/03/2010 | 02:00 | PCD | 65 | TPQIT | 4270 | DanielE2Kde | 06/03/2010 |
| 04/03/2010 | 02:30 | PCD | 65 | TPQIT | 3150 | AlbinoDragon | 17/02/2010 |
| 14/01/2011 | 03:00 | PCD | 13 | WBSDA | 4270 | Kroger | 14/01/2011 |
| 24/01/2011 | 03:00 | PCD | 98 | IKKGT | 7690 | DanielAR | 24/01/2011 |
| 22/02/2011 | 03:00 | PCD | 13 | ZBPCF | 3150 | Hans S | 22/02/2011 |
| 27/02/2011 | 03:00 | PCD | 13 | LYHTA | 4270 | Fox | 27/02/2011 |
| 04/03/2010 | 03:30 | PCD2 |  |  | 3150/4270 | Kroger |  |
| 22/02/2011 | 04:00 | PCD | 52 | YZRKR | 3150 | Hans S | 22/02/2011 |
| 28/02/2011 | 04:00 | PCD | 67 | YYWOJ | 3150/4270 | Hans S | 28/02/2011 |
| 04/03/2010 | 04:30 | PCD | 82 | VMRKQ | 4270/6498 | Kroger | 04/03/2010 |
| 04/03/2010 | 05:00 | PCD | 66 | CLLVH | 4270/6498 | Kroger | 04/03/2010 |
| 04/03/2010 | 05:30 | PCD | 17 | ACZHF | 6498 | Kroger | 04/03/2010 |
| 28/12/2009 | 06:00 | PCD2 |  |  | 6498 | AlbinoDragon |  |
|  | 06:30 |  |  |  |  |  |  |
|  | 07:00 |  |  |  |  |  |  |
| 04/07/2010 | 07:30 | PCD1 |  |  | 6498 | E10 Agent | 19/01/2010 |
| 08/12/2009 | 08:00 | PCD2 |  |  | 6498 | AlanG |  |
|  | 08:30 |  |  |  |  |  |  |
|  | 09:00 |  |  |  |  |  |  |
| 23/02/2010 | 09:30 | PCD | 77 | WLHOQ | 6498 | Baris | 23/02/2010 |
| 23/02/2010 | 10:00 | PCD2 |  |  | 6498 | Baris | 22/01/2008 |
| 23/02/2010 | 10:30 | PCD | 15 | HYSRC | 6498 | Baris | 23/02/2010 |
|  | 11:00 |  |  |  |  |  |  |
| 23/02/2010 | 11:30 | PCD | 21 | DZSOY | 6498 | Baris | 23/02/2010 |
| 23/02/2010 | 12:00 | PCD2 |  |  | 6498 | Baris |  |
| 23/02/2010 | 12:30 | PCD | 45 | IQIOG | 6498 | Baris | 23/02/2010 |
| 17/03/2010 | 13:00 | PCD2 |  |  | 8805 | ElmarE2Kde |  |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 13:30 |  |  |  |  |  |  |
| 28/10/2009 | 14:00 | PCD | 44 | CCSKP | 4270 | Manolis | 28/10/2009 |
| 05/01/2010 | 14:30 | PCD | 14 | WCICU | 6498 | E10 Desk | 05/01/2010 |
| 27/01/2011 | 15:00 | PCD | 19 | SGZPC | 6840 | Hans S | 27/01/2011 |
| 23/02/2010 | 15:30 | PCD | 16 | XXIYP | 6498 | Baris | 23/02/2010 |
| 11/02/2010 | 16:00 | PCD2 |  |  | 5820/6370 | Alan G | 16/04/2009 |
| 02/02/2010 | 16:30 | PCD | 49 | VBEVQ | 4270/6498 | Kroger | 02/02/2010 |
| 12/03/2010 | 17:00 | PCD2 |  |  | 4270 | E10 Desk | 29/03/2008 |
| 10/03/2010 | 17:30 | PCD2 |  |  | 4270 | E10 Desk |  |
| 09/03/2010 | 18:00 | PCD | 51 | NFBDB | 4270/5170 | Peter Poelstra | 09/03/2010 |
| 07/01/2011 | 18:30 | PCD2 |  |  | 4270 | E10 Desk | 13/09/2010 |
| 13/01/2011 | 19:00 | PCD2 |  |  | 4270 | Mike L | 02/08/2010 |
| 09/01/2011 | 19:30 | PCD2 |  |  | 3150 | Mike L | 27/12/2010 |
| 11/01/2011 | 19:30 | PCD | 16 | IMKNT | 3150/4270 | Mike L | 11/01/2011 |
| 17/01/2011 | 19:30 | PCD | 16 | MOZFS | 4270 | Max S | 17/01/2011 |
| 24/01/2011 | 19:30 | PCD | 35 | YPLFT | 4270 | Mark SA | 24/01/2011 |
| 27/01/2011 | 19:30 | PCD | 41 | SQPBS | 4270 | Max S | 27/01/2011 |
| 08/02/2011 | 19:30 | PCD | 35 | QEKKH | 4270 | Max S | 08/02/2011 |
| 17/02/2011 | 19:30 | PCD | 54 | EUVMA | 4270 | Max S | 17/02/2011 |
| 31/03/2010 | 20:00 | PCD2 |  |  | 3150/4270 | Ary B | 23/10/2009 |
| 11/09/2010 | 20:30 | PCD | 8 | NPVBF | 6498 | Kroger | 11/09/2010 |
| 09/01/2011 | 21:00 | PCD | 12 | HXJVE | 6840 | Mike L | 09/01/2011 |
| 11/01/2011 | 21:00 | PCD | 29 | BNQSP | 4270/6498 | Mike L | 11/01/2011 |
| 15/01/2011 | 21:00 | PCD | 12 | MNVTC | 4270 | Max S | 15/01/2011 |
| 26/01/2011 | 21:00 | PCD | 23 | WODNF | 4270 | Max S | 26/01/2011 |
| 27/01/2011 | 21:00 | PCD | 100 | DEFQO | 4270 | Max S | 27/01/2011 |
| 31/01/2011 | 21:00 | PCD | 10 | ZGEXI | 4270 | Max S | 31/01/2011 |
| 13/02/2011 | 21:00 | PCD | 56 | MQQLI | 4270 | Max S | 13/02/2011 |
| 15/02/2011 | 21:00 | PCD | 8 | WHIGG | 4270 | Max S | 15/02/2011 |
| 22/02/2011 | 21:00 | PCD | 54 | EUVMA | 4270 | Max S | 22/02/2011 |
| 04/10/2010 | 21:30 | PCD | 92 | UHJZU | 4270 | Max S | 04/10/2010 |
| 01/02/2010 | 22:00 | PCD | 21 | CQBEN | 7690 | DanielAR | 01/02/2010 |
| 05/03/2010 | 22:30 | PCD2 |  |  | 4270 | Max S |  |
| 14/03/2010 | 23:00 | PCD | 15 | EPCCT | 2515/3150 | Manolis | 14/03/2010 |
| 03/01/2011 | 23:30 | PCD | 85 | SHTGR | 4270 | Max S | 20/12/2010 |
| 14/01/2011 | 23:30 | PCD | 33 | ZQHWG | 4270 | Kroger | 14/01/2011 |
| 16/01/2011 | 23:30 | PCD | 42 | VAHYG | 3150/4270 | Kroger | 16/01/2011 |
| 22/01/2011 | 23:30 | PCD | 100 | SGPSU | 3150 | Alessandro | 22/01/2011 |
| 10/02/2011 | 23:30 | PCD | 100 | DEFQO | 4270 | Max S | 10/02/2011 |

ULX

| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16/01/2010 | 00:00 | ULX | 40 | SKNTN | 3270 | Kroger | 16/01/2010 |
| 15/03/2010 | 00:30 | ULX | 87 | NTXPA | 4270 | Manolis | 15/03/2010 |
| 10/03/2010 | 01:00 | ULX2 |  |  | 3270 | DanielE2Kde | 06/03/2010 |
|  | 01:30 |  |  |  |  |  |  |
| 10/04/2010 | 02:00 | ULX | 86 | PPDEV | 4880 | Kroger | 24/03/2010 |
| 04/03/2010 | 02:30 | ULX | 9 | JQZYZ | 2743/4880 | Kroger | 04/03/2010 |
|  | 03:00 |  |  |  |  |  |  |
| 04/03/2010 | 03:30 | ULX2 |  |  | 3270/4880 | Kroger | 14/11/2008 |
| 05/03/2010 | 04:00 | ULX | 87 | QBICG | 2743/3270 | AlbinoDragon | 05/03/2010 |
| 05/03/2010 | 04:30 | ULX2 |  |  | 2743/3270 | AlbinoDragon |  |
| 03/03/2010 | 05:00 | ULX2 |  |  | 4880 | AlbinoDragon |  |
| 03/03/2010 | 05:30 | ULX | 56 | WCYSX | 4880 | AlbinoDragon | 03/03/2010 |
| 16/03/2009 | 06:00 | ULX | 29 | QALLA | 4880 | scamozzi2000 | 16/03/2009 |
| 14/11/2009 | 06:30 | ULX | 8 | GFFAY | 5230 | E10 Agent | 14/11/2009 |
| 30/12/2008 | 07:00 | ULX | 6 | EVJBU | 4880/5230 | E10 Agent | 30/12/2008 |
| 03/03/2010 | 07:30 | ULX2 |  |  | 6270 | AlbinoDragon |  |
| 16/12/2009 | 08:00 | ULX2 |  |  | 6270 | FN | 04/02/2008 |
| 14/12/2009 | 08:30 | ULX2 |  |  | 6270 | FN |  |
|  | 09:00 |  |  |  |  |  |  |
| 12/09/2010 | 09:30 | ULX | 99 | XARES | 6270 | Manolis | 12/09/2010 |
| 09/03/2010 | 10:00 | ULX | 21 | BXAAN | 7760 | ElmarE2Kde | 09/03/2010 |
| 23/07/2010 | 10:30 | ULX | 38 | DQXHV | 6270/7760 | Manolis | 23/07/2010 |
| 19/03/2009 | 11:00 | ULX | 81 | GNJFZ | 6498 | scamozzi2000 | 19/03/2009 |
|  | 11:30 |  |  |  |  |  |  |
| 14/03/2009 | 12:00 | ULX | 31 | LQGJR | 5230 | scamozzi2000 | 14/03/2009 |
|  | 12:30 |  |  |  |  |  |  |
| 09/03/2010 | 13:00 | ULX | 46 | PCTSG | 6270/7760 | ElmarE2Kde | 09/03/2010 |
| 16/02/2010 | 13:30 | ULX | 27 | WUWIV | 7760 | ElmarE2Kde | 16/02/2010 |
| 09/03/2010 | 14:00 | ULX | 46 | PCTSG | 6270/7760 | ElmarE2Kde | 09/03/2010 |
| 01/01/2010 | 14:30 | ULX | 16 | MTYLM | 4880 | DanielE2Kde | 01/01/2010 |
| 11/02/2010 | 15:00 | ULX | 22 | KOBTV | 7760 | Alan G | 11/02/2010 |
| 11/01/2011 | 15:30 | ULX2 |  |  | 6270 | Mike L | 02/11/2010 |
| 21/01/2011 | 15:30 | ULX | 22 | UHVGF | 5170 | Hans S | 21/01/2011 |
| 16/02/2010 | 16:00 | ULX2 |  |  | 6270 | Hans S | 05/12/2007 |
| 02/03/2010 | 16:30 | ULX2 |  |  | 4880 | Max S | 06/02/2008 |
| 07/03/2010 | 17:00 | ULX2 |  |  | 3270 | DanielE2Kde | 13/10/2009 |
| 11/01/2011 | 17:30 | ULX | 90 | CCTFQ | 3270/4880 | Mike L | 11/01/2011 |
| 12/01/2011 | 17:30 | ULX2 |  |  | 4880 | Mike L | 11/01/2011 |
| 14/01/2011 | 17:30 | ULX | 90 | CCTFQ | 4880 | Kroger | 11/01/2011 |
| 02/03/2010 | 18:00 | ULX2 |  |  | 4880 | E10 Desk |  |
| 16/03/2010 | 18:30 | ULX | 12 | KNAWZ | 4880 | DanielE2Kde | 16/03/2010 |
| 23/01/2010 | 19:00 | ULX2 |  |  | 3270 | DanielE2Kde | 16/04/2009 |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $12 / 07 / 2010$ | $19: 30$ | ULX | 8 | MESLU | $5820 / 7918$ | Hans S | $12 / 07 / 2010$ |
| $04 / 01 / 2011$ | $20: 00$ | ULX | 22 | UHVGF | 4880 | Alan G | $04 / 01 / 2011$ |
| $03 / 02 / 2011$ | $20: 00$ | ULX | 11 | BAFGI | 4270 | Max S | $03 / 02 / 2011$ |
| $16 / 02 / 2010$ | $20: 30$ | ULX2 |  |  | $2743 / 3270$ | Kroger |  |
| $26 / 02 / 2010$ | $21: 00$ | ULX | 50 | AZEAT | $2743 / 3270$ | Alan G | $26 / 02 / 2010$ |
| $09 / 01 / 2011$ | $21: 30$ | ULX | 23 | NTZRE | 6840 | Mike L | $09 / 01 / 2011$ |
| $12 / 01 / 2011$ | $21: 30$ | ULX | 22 | UHVGF | $3270 / 4880$ | Mike L | $12 / 01 / 2011$ |
| $13 / 01 / 2011$ | $21: 30$ | ULX | 63 | DXCOO | 4880 | Mike L | $13 / 01 / 2011$ |
| $13 / 02 / 2011$ | $21: 30$ | ULX | 67 | CEEML | 4270 | Max S | $13 / 02 / 2011$ |
| $15 / 07 / 2010$ | $22: 00$ | ULX | 8 | MESLU | 4880 | Kroger | $15 / 07 / 2010$ |
| $07 / 03 / 2010$ | $22: 30$ | ULX | 94 | SSZBM | 4880 | DanielE2Kde | $16 / 02 / 2010$ |
| $07 / 01 / 2011$ | $23: 00$ | ULX2 |  |  | 4880 | E10 Desk | $29 / 11 / 2010$ |
| $08 / 08 / 2008$ | $23: 30$ | ULX | 33 | ARIID | 3270 | E10 Desk | $08 / 08 / 2008$ |

YHF

| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01/01/2011 | 00:00 | YHF | 41 | UVJIH | 4560 | E10 Desk | 27/12/2010 |
| 02/01/2011 | 00:00 | YHF | 92 | HBTBV | 4560 | E10 Desk | 02/01/2011 |
| 03/01/2011 | 00:00 | YHF | 22 | PDDNE | 4560 | E10 Desk | 03/01/2011 |
| 04/01/2011 | 00:00 | YHF | 15 | ITTQD | 4560 | E10 Desk | 04/01/2011 |
| 09/01/2011 | 00:00 | YHF | 100 | YKUVT | 4560 | E10 Desk | 09/01/2011 |
| 16/01/2011 | 00:00 | YHF | 26 | ZFEXI | 3840/4560 | Kroger | 16/01/2011 |
| 16/02/2011 | 00:00 | YHF | 89 | LBQCF | 4560 | E10 Desk | 16/02/2011 |
| 19/02/2011 | 00:00 | YHF | 60 | ILKRJ | 4560 | E10 Desk | 19/02/2011 |
| 28/02/2011 | 00:00 | YHF | 20 | HAUPL | 4560 | E10 Desk | 28/02/2011 |
| 10/08/2009 | 00:30 | YHF | 78 | RLQMA | 3840 | E10 Desk | 10/08/2009 |
|  | 01:00 |  |  |  |  |  |  |
| 03/01/2011 | 01:30 | YHF | 22 | PDDNE | 4560 | E10 Desk | 03/01/2011 |
| 07/01/2011 | 01:30 | YHF | 23 | RPLRN | 4560 | E10 Desk | 07/01/2011 |
| 08/01/2011 | 01:30 | YHF | 71 | AXBQB | 4560 | E10 Desk | 08/01/2011 |
| 11/01/2011 | 01:30 | YHF | 94 | TKQOR | 4560 | E10 Desk | 11/01/2011 |
| 13/01/2011 | 01:30 | YHF | 94 | TKQAR | 7690 | DanielAR | 13/01/2011 |
| 16/01/2011 | 01:30 | YHF | 94 | TKQOR | 3840/4560 | Kroger | 11/01/2011 |
| 26/01/2011 | 01:30 | YHF | 58 | YAMSI | 4560 | AD | 26/01/2011 |
| 31/01/2011 | 01:30 | YHF | 15 | KPWRD | 4560 | E10 Desk | 31/01/2011 |
| 09/02/2011 | 01:30 | YHF | 9 | KZYBU | 4560 | E10 Desk | 09/02/2011 |
| 17/02/2011 | 01:30 | YHF | 21 | MFTCW | 4560 | E10 Desk | 17/02/2011 |
| 09/01/2011 | 02:00 | YHF | 94 | TKQOR | 3840 | Hans S | 09/01/2011 |
| 01/01/2011 | 02:30 | YHF | 23 | RPLRN | 4560 | E10 Desk | 31/12/2010 |
| 03/01/2011 | 02:30 | YHF | 22 | PDDNE | 4560 | E10 Desk | 03/01/2011 |
| 04/01/2011 | 02:30 | YHF | 23 | RPLRN | 3840 | Hans S | 31/12/2010 |
| 30/01/2011 | 02:30 | YHF | 58 | YAMSI | 4560 | E10 Desk | 30/01/2011 |
| 31/01/2011 | 02:30 | YHF | 23 | RPLRN | 4560 | E10 Desk | 31/12/2010 |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01/02/2011 | 02:30 | YHF2 |  |  | 4560 | E10 Desk | 31/01/2011 |
| 03/02/2011 | 02:30 | YHF | 26 | ZFEXI | 3415 | Hans S | 03/02/2011 |
| 06/02/2011 | 02:30 | YHF | 31 | CBDZO | 4560 | E10 Desk | 06/02/2011 |
| 22/02/2011 | 02:30 | YHF | 22 | MUWDB | 3840 | Hans S | 22/02/2011 |
|  | 03:00 |  |  |  |  |  |  |
| 04/03/2010 | 03:30 | YHF | 37 | CKSIJ | 3840 | Kroger | 04/03/2010 |
| 12/03/2010 | 04:00 | YHF | 60 | CCTCS | 3840/5820 | westt1us | 12/03/2010 |
| 03/01/2011 | 04:30 | YHF2 |  |  | 4560 | Hans S | 23/02/2010 |
| 23/03/2010 | 05:00 | YHF | 16 | VOVID | 7918 | Sealord | 23/03/2010 |
| 24/01/2011 | 05:30 | YHF | 94/59 | HJNUB/JDUTC | 7918/9202 | AD | 24/01/2011 |
| 13/02/2011 | 05:30 | YHF2 |  |  | 7918/9202 | Fox | 24/01/2011 |
| 02/03/2010 | 06:00 | YHF | 28 | AYQCT | 4560/5820 | AlbinoDragon | 04/02/2010 |
| 15/03/2010 | 06:30 | YHF | 31 | DENLK | 7918 | Alan G | 15/03/2010 |
| 14/10/2010 | 07:00 | YHF2 |  |  | 4560/5820 | Manolis |  |
| 02/03/2010 | 07:30 | YHF | 93 | DBCRO | 7918 | AlbinoDragon | 02/03/2010 |
|  | 08:00 |  |  |  |  |  |  |
| 02/03/2010 | 08:30 | YHF2 |  |  | 7918 | AlbinoDragon |  |
| 02/03/2010 | 09:00 | YHF | 17 | PRUBM | 7918 | AlbinoDragon | 17/02/2010 |
| 02/03/2010 | 09:30 | YHF2 |  |  | 6370 | AlbinoDragon |  |
| 17/02/2010 | 10:00 | YHF2 |  |  | 5820 | Baris |  |
| 19/02/2010 | 10:30 | YHF | 37 | CZJIZ | 5820 | Baris | 19/02/2010 |
| 19/02/2010 | 11:00 | YHF | 47 | DUKBY | 5820 | Baris | 19/02/2010 |
| 17/02/2010 | 11:30 | YHF2 |  |  | 7918 | ElmarE2Kde |  |
| 17/01/2011 | 12:00 | YHF | 94 | HJNUB | 10648 | Hans S | 17/01/2011 |
| 18/01/2011 | 12:00 | YHF | 94/54 | HJNUB/JDUTC | 10648 | Hans S | 17/01/2011 |
| 27/02/2011 | 12:00 | YHF2 |  |  | 10648 | E10 Desk | 18/01/2011 |
| 14/11/2010 | 12:30 | YHF2 |  |  | 9202 | Fox | 17/03/2010 |
| 09/03/2010 | 13:00 | YHF | 44 | BAQEO | 7918 | ElmarE2Kde | 04/03/2010 |
| 09/01/2011 | 13:30 | YHF2 |  |  | 9202/10648 | E10 Desk | 31/01/2010 |
| 01/01/2011 | 14:00 | YHF2 |  |  | 7918 | Fox |  |
| 17/01/2010 | 14:30 | YHF | 28 | BCSNX | 6370 | DanielE2Kde | 17/01/2010 |
| 17/01/2010 | 15:00 | YHF | 85 | CSPYL | 5820 | DanielE2Kde | 17/01/2010 |
| 15/01/2010 | 15:30 | YHF | 94 | MWWZE | 5820 | Kroger | 27/12/2009 |
| 16/02/2010 | 16:00 | YHF2 |  |  | 6270 | Hans S |  |
| 11/01/2011 | 16:30 | YHF | 48 | RVXCI | 4560 | Hans S | 11/01/2011 |
| 13/01/2011 | 16:30 | YHF | 17 | JFZBT | 3840/4560 | Mike L | 13/01/2011 |
| 13/02/2011 | 16:30 | YHF | 52 | QOXNY | 4560 | Kopf | 13/02/2011 |
| 12/03/2010 | 17:00 | YHF2 |  |  | 3840/4560 | E10 Desk |  |
| 11/03/2010 | 17:30 | YHF | 10 | MVAIO | 5820 | ElmarE2Kde | 11/03/2010 |
| 16/02/2010 | 18:00 | YHF | 37 | OGKKJ | 3840/4560 | Kroger | 16/02/2010 |
| 11/03/2010 | 18:30 | YHF | 26 | PQALX | 10648 | DanielAR | 11/03/2010 |
| 16/02/2010 | 19:00 | YHF2 |  |  | 3840 | Kroger | 07/02/2010 |
| 09/01/2011 | 19:30 | YHF2 |  |  | 5820/7918 | Mike L | 18/11/2010 |
| 14/01/2011 | 19:30 | YHF | 94/59 | HJNUB/JDUTC | 3840/5820 | Kroger | 14/01/2011 |
| 01/02/2011 | 19:30 | YHF1 |  |  | 7918 | Mike | 15/01/2011 |


| Date | Time | Callsign | Group Count(s) | First Group(s) | Frequency(s) | Credit | First Logged/Last Message |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10/02/2011 | 19:30 | YHF | 119/51 | CVGTR/LJIYL | 5820/7918 | Alessandro | 10/02/2011 |
| 26/02/2011 | 19:30 | YHF2 |  |  | 5820 | Fox | 10/02/2011 |
| 10/03/2010 | 20:00 | YHF2 |  |  | 9202 | E10 Desk | 06/02/2008 |
| 16/02/2010 | 20:30 | YHF | 65 | BPRNH | 3840/4560 | Kroger | 16/02/2010 |
| 26/02/2010 | 21:00 | YHF | 14 | LTUMD | 4560/5820 | Alan G | 16/02/2010 |
| 01/03/2010 | 21:30 | YHF | 26 | GULER | 4560/5820 | E10 Agent | 01/03/2010 |
| 04/03/2010 | 22:00 | YHF | 33 | OSHYM | 3840 | ElmarE2Kde | 04/03/2010 |
| 05/03/2010 | 22:30 | YHF2 |  |  | 7918 | DanielAR | 02/01/2009 |
| 14/03/2010 | 23:00 | YHF2 |  |  | 2844/3840 | Manolis | 07/11/2009 |
|  | 23:30 |  |  |  |  |  |  |

## Noteworthy Events

A great deal has happened in the last couple of months in the Middle East. We have seen revolutions in Egypt and Tunisa , Libya seems to be in a state of turmoil along with Yemen and there have been protests in most other countries in that area. These events will all have a direct influence on the State of Israel but despite that there appears to have been not change in E10 schedules or operating procedures something that is a great puzzle to the groups regular E10 monitors.

In the past events in the Middle East have usually been accompanied by changes in E10 with flurries on messages and slots suddenly activating. But after these which have to be the biggest events in the Middle East for perhaps 40 years none of the groups E10 monitors has detected any change in E10! If anything the last few months have seen yet more examples more what appear to be E10 sloopiness with frequency mistakes and a couple of instances where E10 vanished for half a day. Not exactly what you would expect for an important communications channel.

So what does this mean for E10 and its future ? Well anyone who does know the truth isn't going to tell us and so we can only speculate.
Perhaps E10 is no longer used by front line agents and has been relegated to the status of a backup system.
Whatever the truth is at times like this we need as many ears as possible monitoring E10 and sending their logs to the group.

## E11[III]

## E11 January/February log:

| $4441 \mathrm{kHz} \mathrm{1445z}$ | 01/01 [287/00] Out 1448z Weak |
| :---: | :---: |
| 1050z | 02/01 [127/00] Very weak |
| 1445z | 05/01 [287/00] Strong |
| 1445z | 08/01 [287/00] Fair |
| 1050z | 17/01 [127/00] Weak |
| 1445z | 26/01 [287/00] Out 1448z Fair, QRM3 |
| 0900z | 27/01 [248/00] Weak |
| 1445z | 29/01 [287/00] (3m16s) |
| 0900z | 03/02 [248/00] Good |
| 0900z | 05/02 [248/00] Good |
| 1049z | 07/02 [127/00] Weak/Fair |
| 1050z | 14/02 [127/00] Very weak |
| 0900z | 19/02 [248/00] Weak |
| 1445z | 19/02 [287/00] Out 1448z Strong, with background |
| 1445z | 23/02 [287/00] Out 1448z Weak, readable |
| $4958 \mathrm{kHz} \mathrm{1240z}$ | 04/01 [349/00] |
| 1240z | 09/01 [349/00] Fair |
| 1240z | 30/01 [349/00] Fair |
| 1239 z | 08/02 [349/00] Weak |
| 1240z | 13/02 [349/00] Weak |
| 1240z | 15/02 [349/00] Weak |
| $5082 \mathrm{kHz} \mathrm{0450z}$ | 10/01 [416/00] Good |
| 0450z | 17/01 [416/00] Good |
| 1730z | 20/01 [416/00] Good |
| 0450z | 24/01 [416/00] Strong |
| 1730z | 27/01 [416/00] |
| 0445z | 31/01 [416/00] Out 0453z Strong, QSB2 at end |
| 1730z | 03/02 [416/00] Good |
| 0450z | 07/02 [416/00] Fair |
| 0450z | 21/02 [416/00] Out 0453z Weak |
| 0450z | 28/02 [416/00] Weak |
| 7371 kHz 0805 z | 06/01 [438/00] Fair BC-QRM3 |
| 0820z | 08/02 [438/00] Strong |
| 0820z | 15/02 [438/00] Strong |


| (3m18s) | PLondon SAT |  |
| :---: | :---: | :---: |
|  | RNGB | SUN |
|  | Hans | WED |
|  | RNGB | SAT |
|  | Hans | MON |
| (3m16s) | PLondon | WED |
|  | RNGB | THU |
|  | RNGB, Hans | SAT |
|  | RNGB | THU |
|  | RNGB | SAT |
|  | Hans | MON |
|  | RNGB | MON |
|  | RNGB, Hans | SAT |
| (3m19s) | PLondon | SAT |
| (3m16s) | PLondon | WED |
|  | RNGB | TUE |
|  | RNGB | SUN |
|  | RNGB | SUN |
|  | Hans | TUE |
|  | RNGB | SUN |
|  | RNGB, Hans | TUE |
|  | RNGB | MON |
|  | RNGB, SeaLord | MON |
|  | RNGB | THU |
| (3m16s) | RNGB, PLondon | MON |
|  | RNGB | THU |
| (3m18s) | PLondon | MON |
|  | RNGB | THU |
|  | RNGB, Hans | MON |
| (3m16s) | PLondon, Hans | MON |
|  | Hans | MON |
|  | Hans | THU |
|  | Hans | TUE |
|  | Hans | TUE |


| 7840 kHz 0645 z | 06/01 [517/00] Very weak |  | RNGB | THU |
| :---: | :---: | :---: | :---: | :---: |
| 0645z | 11/01 [517/00] Good |  | RNGB | TUE |
| 0645z | 18/01 [517/00] Good |  | RNGB | TUE |
| 0645z | 10/02 [517/00] Fair | (3m21s) | RNGB, PLondon | THU |
| 0645z | 15/02 [517/00] Fair |  | RNGB | TUE |
| 0645z | 17/02 [517/00] Fair |  | RNGB | THU |
| $8091 \mathrm{kHz} \mathrm{1045z}$ | 04/01 [469/00] |  | RNGB | TUE |
| 1045z | 11/01 [469/00] Good |  | RNGB, Hans | TUE |
| 1045z | 25/01 [469/00] Fair |  | RNGB | TUE |
| 1045z | 26/01 [469/00] Good |  | RNGB, PLondon | WED |
| 1045z | 08/02 [469/00] Out 1045z Strong | (3m13s) | PLondon | TUE |
| 1044z | 09/02 [469/00] Strong |  | Hans, RNGB | WED |
| 1045z | 15/02 [469/00] Fair |  | RNGB, PLondon | TUE |
| 1045z | 16/02 [469/00] Fair |  | RNGB | WED |
| 1045z | 23/02 [469/00] Out 1048z Fair | (3m05s) | PLondon | WED |
| $9079 \mathrm{kHz0930z}$ | 05/01 [270/00] Fair |  | Hans, RNGB | WED |
| 0930z | 06/01 [270/00] Strong |  | Hans, RNGB | THU |
| 0930z | 12/01 [270/00] Good | (3m14s) | RNGB, Hans | WED |
| 0930z | 20/01 [270/00] |  | RNGB | THU |
| 0930z | 09/02 [270/00] Good |  | RNGB | WED |
| 0930z | 10/02 [270/00] |  | RNGB | THU |
| 0930z | 16/02 [270/00] | (3m17s) | RNGB | WED |
| 0930z | 23/02 [270/00] Out 0933z Strong | (3m15s) | PLondon | WED |
| $9446 \mathrm{kHz0830z}$ | 27/01 [649/00] Weak/Fair |  | Hans | THU |
| 0830z | 31/01 [649/00] Good |  | RNGB | MON |
| 0900z | 02/02 [534/00] Strong |  | RNGB, Hans | WED |
| 0830z | 07/02 [649/00] Fair BC-QRM3 |  | Hans | MON |
| 0900z | 07/02 [534/00] Out 0903z Weak QRM3 |  | PLondon | MON |
| 0900z | 09/02 [534/00] Good |  | RNGB, Hans | WED |
| 0830z | 10/02 [649/00] Good |  | RNGB | THU |
| 0830z | 21/02 [649/00] Fair |  | RNGB, Hans | MON |
| 0900z | 21/02 [534/00] Fair |  | RNGB | MON |
| 0830z | 28/02 [649/00] |  | RNGB | MON |
| 0900z | 28/02 [534/00] |  | RNGB | MON |
| 10800kHz 0710z | 11/02 [633/00] Strong |  | Hans | FRI |
| 0710z | 25/02 [633/00] Fair |  | Hans | FRI |

## E11a January/February log:

| $4441 \mathrm{kHzz} \mathrm{1050z}$ |  |  |
| :---: | :---: | :---: |
|  | 1445z | 12/01 [287/34 60312854772663789717 75719.....77260] Good |
|  | 1445z | 15/01 [287/34 60312... ] repeat of Weds |
|  | 0900z | 20/01 [243/31 3032490947 55173.....] Very weak |
|  | 0900z | 22/01 [243/31 30324 etc] repeat of Thursday. Still very weak |
|  | 1445z | 02/02 [281/35 80281997626982507187 92247....46002] Out 1455z, Fair |
|  | 0900z | 10/02 [240/31 $1748348980870853409564526 . . .$. ] Very weak |
|  | 0900z | 12/02 [240/31 17483489808708534095 64526.....81764] Fair |
| 4958 kHz 1 | 1240z | 11/01 [340/34 A 6006949154 .... 89381] Out1249z Weak/Fair |
|  | 1240z | 01/02 [348/34 A 46146 33107...] V.weak/Weak |
| 5082 kHz 0 | 0450z | 03/01 [411/36 98100317592059280723 35270....07559] Strong |
|  | 1730z | 06/01 [411/36 - repeat of Monday] Strong |
|  | 0450z | 14/02 [410/37 A 73831 ... nnnnn] Out 0500z Weak, QRM, QSB2 |
|  | 1730z | 17/02 [410/37 75831424872880150212 09671....65067] Very strong |
| $5194 \mathrm{kHz} \quad 19$ | 1925z | 09/02 [i.p. ends: ... 73072 out at 1929z] |
|  | 1920z | 10/02 [750/3050961 162915606163987 60894....25530] Very stron g |
|  | 1920z | 11/02 [750/30 50600283467820365107 27504.....66549] Good, |
|  | 1920z | 12/02 [750/30 95192154791007361361 69261....37769] Strong |
|  | 1920z | 13/02 [750/30 97287060181309771711 70789.....31918] Good |
|  | 1920z | 14/02 [750/30 19255649264895044523 67251.....29475] Good, Out 1929z |
|  | 1920z | 15/02 [750/30 A 66264 ... 77484] Out 1929z Strong |
|  | 1920z | 16/02 [750/30 $1671407386397329007149283 . . . .36316]$ Strong |
|  | 1920z | 17/02 [750/30 99769688893175939609 81209.....36618] Strong, Out 1929z |
| 7371 kHz 0805 z |  | 10/01 [430/38 81756008078650015391 84100....88741] Out 0815z |
| 7840 kHz 0645 z |  | 25/01 [517/38 93624328363171617352 52832....41867] Good, Out 0655z |
|  | 0645z | 27/01 [517/38 93624 etc] Repeat of Tuesday |
| 0645z |  | 01/02 [517/35 71784393568310025733 04464.....50650] Out 0655z |
| 8091 kHz 1 | 1045z | 18/01 [460/32 10026831032255249396 83505.....43864] Out 1054z, Fair |
|  | 1045z | 02/02 [463/36 36461255139325116822 54022....23629] Strong |
| 9079 kHz 0 | 0930z | 26/01 [278/33 16137391444472979212 51546.....69694] Good |
|  | 0930z | 02/02 [277/32 29748233345017851778 47543.....21470] Out 0939z, Good |
|  | 0930z | 03/02 [277/32 29748 etc] repeat of Weds |


|  | Hans | MON |
| :---: | :---: | :---: |
| (9m39s) | RNGB, Hans, Fritz | WED |
|  | RNGB | SAT |
|  | RNGB | THU |
|  | RNGB | SAT |
|  | RNGB | WED |
|  | RNGB | THU |
|  | RNGB | SAT |
|  | Hans | TUE |
|  | Hans | TUE |
|  | RNGB, PLondon | MON |
| $\begin{aligned} & (9 \mathrm{~m} 56 \mathrm{~s}) \\ & (10 \mathrm{~m} 10 \mathrm{~s}) \end{aligned}$ | RNGB, PLondon | THU |
|  | PLondon | MON |
|  | RNGB | THU |
|  | Fritz | WED |
|  | RNGB | THU |
| (8m54s) | RNGB | FRI |
|  | RNGB, Hans | SAT |
|  | RNGB | SUN |
|  | RNGB | MON |
| (9m09s) | PLondon | TUE |
|  | RNGB | WED |
|  | RNGB | THU |
|  | RNGB, Hans | MON |
|  | RNGB | TUE |
|  | RNGB | THU |
|  | RNGB | TUE |
|  | RNGB, Hans | TUE |
|  | RNGB, Hans | WED |
|  | RNGB, PLondon | WED |
|  | RNGB | WED |
|  | RNGB | THU |


| 9446kHz0830z | 14/02 [644/35 A 63041 95276....] Fair/Strong BC-QRM4 |  | Hans | MON |
| :---: | :---: | :---: | :---: | :---: |
| 0900z | 14/02 [537/35 24594938682845620475 57651....49396] Fair with QRM |  | RNGB | MON |
| 0900z | 16/02 [537/35 24594 etc] repeat of Monday |  | RNGB | WED |
| 0830z | 17/02 [644/35 63041952765661068982 89007.....48954] Fair with QRM |  | RNGB | THU |
| 10800kHz 0710z | 15/02 [636/34 8954361885 34159....73195] Out 0720 Very weak |  | RNGB, Hans | TUE |
| 0710z | 18/02 [636/34 89543618853415984725 80281.....73195] Good |  | RNGB | FRI |
| 12530kHz 1015z | 14/02 [470/32 37582416529152729076 42324.....78356] Good |  | RNGB | MON |
| 1015z | 17/02 [470/32 37582 etc] repeat of Monday |  | RNGB | THU |
| 14410kHz1135z | 07/02 [???/30 A 2367190876 .... 11134] Out 1139z Fair, in progress. |  | Hans | MON |
| 1130z | 08/02 [758/30 A 2397669371 .... 66119] 1139z Strong DATA-QRM4 |  | Hans | TUE |
| 1130z | 09/02 [758/30 39954638269808067006 95043......36627] Fair | (9m2s) | RNGB, Hans | WED |
| 1130z | 10/02 [758/30 10501604655136885038 62444.....96428] Good |  | RNGB | THU |
| 1130z | 11/02 [758/30 48783056713690715231 29661....04411] Strong, | (8m54s) | RNGB, Hans | FRI |
| 1130z | 12/02 [758/30 79626892989245156381 21852.....10693] Good |  | RNGB | SAT |
| 1130z | 13/02 [758/30 85200291743431634903 79418.....24125] Good |  | RNGB | SUN |
| 1130z | 14/02 [758/30 68157349998709579399 64306....85462] Fair, | (9m3s) | RNGB | MON |
| 1130z | 15/02 [758/30 61584077162034544416 51649....46840] Good, | (8m56s) | RNGB | TUE |
| 1130z | 16/02 [758/30 40658371342194312458 15823.....84210] Good, | (8m50s) | RNGB | WED |
| 1130z | 17/02 [758/30 55070007675894897222 15785....78364] |  | RNGB | THU |
| 14666kHz1209z | 07/02 [...62917] Out 1209z Fair, in progress. Only the last group heard...) |  | Hans | MON |
| 1205z | 08/02 [954/10 53624191554116330287 96094.....33473] Good | (5m15s) | RNGB, Hans | TUE |
| 1205z | 09/02 [954/10 74700748987226846776 96917.....13820] Fair |  | RNGB, Hans | WED |
| 1205z | 10/02 [954/10 96392145697995941763 14977.....02950] Good |  | RNGB | THU |
| 1205z | 11/02 [954/10 62552937197284104729 96234.....07189] Good, | (5m11s) | RNGB, Hans | FRI |
| 1205z | 12/02 [954/10 22641078722737184267 58726....68795] Good, | (5m11s) | RNGB | SAT |
| 1205z | 13/02 [954/10 69565198969771432442 94943.....72899] Fair, QSB |  | RNGB | SUN |
| 1205z | 14/02 [954/10 33252186742972929212 91045.....94587] Good, | (5m9s) | RNGB | MON |
| 1205z | 15/02 [954/10 $\ldots$.$] very weak, unable to copy groups$ |  | RNGB | TUE |
| 1205z | 16/02 [954/10 34572402086480553611 16810.....13451] | (5m8s) | RNGB | WED |
| 1205z | 17/02 [954/10 13325648010002052526 10270.....03344] Good |  | RNGB, Hans | THU |
| 1205z | 18/02 [954/10 96144764825051020283 52062.....39949] Out 1210z |  | RNGB | FRI |
| 1205z | 19/02 [954/10 61708887332844583681 85968.....73054] Good |  | RNGB, Hans | SAT |
| 1205z | 21/02 [954/10 91683717710345788490 13551.....62795] Good |  | RNGB, Hans | MON |
| 1205z | 25/02 [954/10 A 3854278529 .... 97573] 1210z Fair |  | Hans | FRI |
| 1205z | 28/02 [954/10 38271985131138849621 63649....63505] Good, | (5m9s) | RNGB | MON |

NOTES: On the 14th and 17th February S11a ID 475 on 12530 kHz became E11a to send a message !! It reverted backed to S11a the following week. Operator mistake I wonder?

## E11c

| 6923 kHz | 1630 z | $11 / 02[755 / 555 / 00]$ YL S7 clear |
| ---: | :--- | :--- |
| 1635 z | $12 / 02[755 / 555 / 00]$ Strong |  |
| 1635 z | $13 / 02[755 / 555 / 00]$ Strong |  |
| 1635 z | $15 / 02[755 / 555 / 00]$ Good |  |
| 1635 z | $16 / 02[755 / 555 / 00]$ Out 1638 z Strong |  |
| 1635 z | $17 / 02[755 / 555 / 00]$ |  |


|  | mikesndbs | FRI |
| :--- | :--- | :--- |
|  | Hans | SAT |
|  | RNGB | SUN |
| $(3 m 24 \mathrm{~s})$ | RNGB, PLondon | TUE |
| (3m24s) | PLondon WED <br> mikesndbs | THU |

## $\underline{E 17 z}$

## January 2011

9820kHz 0810z

11170kHz0800z 06/01[674 283578156547615226350465454332835 00000] Fair/Strong QSB2
0800z 13/01[674 283578156547615226350465454532835 00000] Fair Hans,
0800z 20/01[674289554535640298942645085 06303]
0800z 27/01[674 289554535640298942645085 06303]

February 2011

| 9820 kHz 0810 z | $03 / 02[674398581736]$ |
| ---: | :--- |
| 0810 z | $10 / 02[67429858172635647901827336590673298500000(\mathrm{~s})]$ Strong, BC-QRM4 |
|  |  |
| 11170 kHz 0800 z | $03 / 01[67429858172635647901827336590673]$ |
| 0800 z | $10 / 02[67429858172635647901827336590673298500000(\mathrm{~s})]$ Fair QSB2 |
| 0800 z | $17 / 02[674281281554611644104282146958321495]$ |


| FN | THU |
| :--- | :--- |
| Hans | THU |
| GD, FN | THU |
| Hans | THU |
| GD | THU |

HU THU THU

Since December 2004 skeds have become erratic, and may not stick to correct weeks. Some voice transmissions have been heard in week 2 Week 1 Usually starts on the first Monday of the Month, but there have been variations to this.
Times are not rigid, has been known to start as early as Hour + 52 [Tnx AnonUK]. Week 2 was M04 Not heard since September 2000

|  | Week 1 |  | Week2 |  | Week 3 |  |  | Week 4 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | Time | Freq | Time | Freq | Time | Freq | Time | Freq |  |
| Monday | 0957 | 6507 |  |  | 0757 | 4832 | 0757 | 5340 |  |
|  | 1157 | 8188 |  |  | 0957 | 6200 | 0957 | 8188 |  |
|  | 1257 | 5340 |  |  | 1157 | 8188 | 1157 | 7250 |  |
|  |  |  |  |  | 1257 | 6507 |  |  |  |
| Wednesday | 0957 | 6507 |  |  | 0757 | 4832 | 0757 | 5340 |  |
|  | 1157 | 8188 |  |  | 0957 | 6200 | 0957 | 8188 |  |
|  | 1257 | 5340 |  |  | 1157 | 8188 | 1157 | 7250 |  |

E25[0]
I received a plethora of logs coming from listeners across Central/Northern Europe, via E2Kde, and from the UK. The last two months, E25 fans were surprisingly successful logging traffic on 9450 kHz , probably getting a boost from an active (at last!) Sun. The higher frequency, 9450 kHz is feasible, but yet, 6140 kHz is a tough one. I am really happy since your logs cover the time frame I cannot monitor since my auto-recording system is currently offline. So, here are the logs:

## January 2011

| 9450kHz1230z | 06/01[557 4] YL slow, breaks, "Message" x2, QSB2 | MG | THU |
| :---: | :---: | :---: | :---: |
| 1312z | 06/01[785 1578891011121314$]$ WinXP sounds, YL variable speed, Strong | MG | THU |
| $9450 \mathrm{kHz} \mathrm{1320z}$ | 11/01[785 97881011121314 (repeated)] YL i/p Fair QSB2 | Hans | TUE |
| $6140 \mathrm{kHz} \mathrm{0800z}$ | 12/01[116 203173365320854888224114964852823651706536124428 9730] YL slow, QSB3, Strong | MG | WED |
| 0921z | 12/01[955 5] YL variable speed, ended Mx3, Strong | MG | WED |
| $6140 \mathrm{kHz} \mathrm{0800z}$ | 13/01[116 (as of 12/01)] YL slow | MG | THU |
| $9450 \mathrm{kHz} \mathrm{1314z}$ | 15/01[785 16788111214 (R2) 7851678811121314 (R8)] EOM 1323z (9m14s) | PLdn | SAT |
| 6140 kHz 0755 z | 16/01[116 303142334070851083806246287889408304212310665244 7171] tone, YL slow, Win snds | MG | SUN |
| $6140 \mathrm{kHz} \mathrm{1045z}$ | 22/01[126 $3712843663580 \underline{8020} 6151309766693888$ 8020] YL slow, AM, Strong | MG | SAT |
| $6140 \mathrm{kHz} \mathrm{0800z}$ | 23/01[368 3603471800180367789677695101127019779186715292247880580 $36129263 \underline{8001} 7801]$ OM live, hum, tone, Good | MG | SUN |
| 0900z | 23/01[111 $3210 \underline{0310} 50411788806699436763897187656715274960668534$ 0310] OM live, Good | MG | SUN |
| 1105z | 23/01 "Inte Omri", then "Arouh Le Min" QRT 1121z | MG | SUN |
| 6140 kHz 0929 z | 29/01[33310129840 646829863115370323464001241791230370971645834105 371386649031847519684533 9840] tone, YL slow, pauses, Strong | MG | SAT |
| $6140 \mathrm{kHz} \mathrm{0937z}$ | 30/01[333 (as of 29/01)] YL slow, problematic, QRT during repeat, QSB3, Strong | MG | SUN |
| $6140 \mathrm{kHz} \mathrm{1000z}$ | 31/01 Carrier only, lasted 14min | MG | MON |

February 2011


Illustrates 9450 kHz 1302 z 06/02/2011

$1314 z \quad 08 / 02 \quad 78812141822$
78* 111924 then
78812141822
78511924 both repeated until $1321 z$ ending with 78812141822 Fair, QSB2
*word stated, sounded like 'iskut' or 'silence.'
PLdn
TUE


Shows E25 carrier with 1 kHz tone[left], and audio response, right

| $9450 \mathrm{kHz} \mathrm{1159z}$ | 08/02[275 2051280 x14] tone, YL slow, WinXP sounds, Strong | MG | TUE |
| :---: | :---: | :---: | :---: |
| 1309z | 08/02[785 111924788121418 22] tone, YL irregular spaces, Strong | MG | TUE |
| $9450 \mathrm{kHz} \mathrm{1159z}$ | 09/02[275 (as of 08/02)] 1153z tone, QRT 1205z, Fair | Hans | WED |
|  | Carrier up 1151z, weak, QRM3/4, carrier down 1206z | PLdn | WED |
| 6140 kHz 0813 z | 10/02[185 0199411093451095049103056959 7694] tone, YL irregular, Strong | MG | THU |
| 0905z | 10/02[950 $0120 \underline{3210} 6001012333338143013621190232 \underline{3210}$ ] YL, initially clg 185, WinXP sounds | MG | THU |
| $9450 \mathrm{kHz} \mathrm{1315z}$ | 10/02[785 121826277881422 25] YL, break 1323z WinXP sounds till at least 1355z. Good, BC QRM (Family Radio) | Hans | THU |
| $6140 \mathrm{kHz} \mathrm{0816z}$ | 11/02[185 (as of 10/02)] YL irregular, QSB3, Strong | MG | FRI |
|  | Very strong. Musical Chords repeated and very low audio from BC stn | PLdn | FRI |
| 6140 kHz 0755 z | 12/02[360 44909310032723288724430187379310 1060] YL slow, QSB2, strong | MG | SAT |
| 0852z | 12/02 "Arouh Le Min" for $\sim 1$ minute, then QRT, Strong | MG | SAT |
| 6140 kHz 0753 z | 13/02[364 13] YL, "Message" once, Strong | MG | SUN |
| $9450 \mathrm{kHz} \mathrm{1229z}$ | 13/02[555 3120503125501320887532375730260799951014 87832880 2550] YL, variable speed, EOM only | MG | SUN |
|  | ALM (2m30s) fast QSB | Gert | SUN |
|  | Carrier on spectral display, heard the change in bg on its rising at 1229z. Only the odd character heard | PLdn | SUN |
| $9450 \mathrm{kHz} \mathrm{1201z}$ | 14/02[MISSED CALL 4120007115102100 xx46 25572550 x072 xx1x 23727044 012x $5066042740290512 \underline{1510]}$ i/p, S7, hi-noise, het, distorted, difficult. EOM 1205z | MikeL | MON |
| 1232z | 14/02[555] sig down to S3 | MikeL | MON |
| $9450 \mathrm{kHz} \mathrm{1200z}$ | 15/02[275 4120307119104100834625572550407271132372704401289066042740260913 1910] | RNGB, Gert | TUE |
|  | Ends 1210z, repeat of yesterdays msg, S7-9, some noise, fade | MikeL | TUE |
| 9450 kHz 1203 z | 15/02[275 (as above)] EOM 1209z Fair BC-QRM2 QSB2 | Hans | TUE |
| 1316z | 15/02[785 2278814 25] repeated 11 times, ended with EOM at $1322 z$ (Also detected by PLdn) | Gert, MikeL | TUE |
| $6140 \mathrm{kHz} \mathrm{0758z}$ | 17/02[NO CALL 410783505610281623090843284937490515 |  |  |
|  | 5542 9562] YL, EOM only, various WinXP sounds, Strong | MG | THU |
| $6140 \mathrm{kHz} \mathrm{0759z}$ | 18/02[012 (as of 17/02)] YL, various WinXP theme sounds, Strong | MG | FRI |
| $6140 \mathrm{kHz} \mathrm{0944z}$ | 19/02[350 9120117190512612135852432820593034959580 |  |  |
|  | 1678746604806993 1171] IO, YL, WinXP sounds, EOM EOT after $2^{\text {nd }}$ repeat grp | MG | SAT |
| $9450 \mathrm{kHz} \mathrm{1316z}$ | 19/02[785 3278830 31] YL, pauses, Strong | MG | SAT |
|  | After a minute pause at 1319z, repeated to 1322z. Strong signal | Hans, PLdn | SAT |



WolfgangE2Kde, member of the German Branch, recorded E25 on 25/02, which he got in his car radio. Here are the links to the 2 full recordings: http://shareplace.com/?48E968D818 and http://shareplace.com/?0153781B21 [Thanks Wolfgang and Kopf]

| $3854 \mathrm{kHz} \mathrm{1700z}$ | 10/01[439 00000] |  | RNGB | MON |
| :---: | :---: | :---: | :---: | :---: |
| $4039 \mathrm{kHz} \mathrm{1300z}$ | 05/01[439 00000] Weak/Fair QSB2 |  | Hans | WED |
| 1300z | 12/01[439 00000] 1304z Carrier heard from 1215z with message read a few times Weak/Fair |  | Hans | WED |
| $4519 \mathrm{kHz} \mathrm{1830z}$ | 13/01[271 6541545639 ... 2341765415 00000] 1937z Weak, QRM3 | (7m08s) | PLdn | THU |
| 1830z | 27/01[271 6541545639 ... 234176541500000$] 1937 \mathrm{z}$ |  | FN, PLdn | THU |
| $4587 \mathrm{kHz} \mathrm{1800z}$ | 10/01[439 00000] |  | RNGB | MON |
| $4778 \mathrm{kHz} \mathrm{1200z}$ | 12/01[439 00000] 1204z several counts after message, to around 1206z, Weak |  | Hans | WED |
| 4792kHz 1930z | 14/01[436 8271524361 ... 1436782715 00000]1937z Strong | (7m17s) | PLdn | FRI |
| 1930z | 28/01[436 82782715152436129835 36278] |  | GD, FR, PLdn | FRI |
| $5463 \mathrm{kHz} \mathrm{0800z}$ | 03/01[215 00000] Fair |  | Hans | MON |
| 0800z | 10/01[215 00000] Fair |  | Hans | MON |
| 0800z | 31/01 [215 215215 00000] |  | FN | MON |

## February2011

| 4519kHz 1830z | 10/02 [2714531523154 ... 465734531500000 ] YL sent very slow S9 QRM <br> 2315476894285922431910957 <br> 3726518547297832547128563 <br> 2418535473867594769546573 <br> 4531500000 (1839z) |  | Mndbs | THU |
| :---: | :---: | :---: | :---: | :---: |
| 1830z | 24/02 [271 4531523154 ... 4657345315 00000(s)]1839z Strong | (6m19s) | PLdn | THU |
| 4792kHz1930z | 11/02[4367211535472 ... 342647211500000 ] Wk rising to strong, QRM 43672115 <br> 3547248973243194528598352 <br> 1763925481274969806435093 <br> 2317645383564983645334264 <br> 7211500000 |  | FR | FRI |
| 4792kHz1930z | 25/02 [Message as 11/02] Very strong signal, weak noise |  | FR, PLdn | FRI |
| 5463 kHz 0800 z | 07/02 [215 00000(s)] Fair/Strong |  | Hans | MON |
| 0800z | 21/02[215 00000(s)] Weak |  | Hans | MON |

PoSWs logs:
Second + Fourth Thursdays in the Month 1830 UTC Schedule:-
13-Jan-11:- 4,519 kHz, call "271", DK/GC "654 65415 15", very weak signal, difficult copy.
27-Jan-11:- 4,519 kHz, "271" and "654 6541515 " again, slightly stronger than last time.
10-Feb-11:- 4,519 kHz, call "271", DK/GC "453 4531515 ", stronger signal than last month, "23154 76894285922431910957372651854729783 25471285632418535473867594769546573 ".

24-Feb-11:- $4,519 \mathrm{kHz}$, started 50 seconds before the half-hour, " 271 " and "453 4531515 ", same as last time.
Friday 1930 UTC Schedule:-
14-Jan-11:- 4,792 kHz, call "436", DK/GC "827 82715 15", weak signal, difficult copy.
28-Jan-11:- $4,792 \mathrm{kHz}$, no voice heard until well after 1934 UTC, appeared to be plain carrier only, then call " 436 " and DK/GC about 30 seconds later, "827 8271515 " as on the $14^{\text {th }}$.

11-Feb-11:- 4,792 kHz, call "436", DK/GC "721 72115 15". Good signal over-riding local QRM. "35472 48973243194528598352176392548127496 980643509323176453835649836453 34264".

25-Feb-11:- 4,792 kHz, "436" and "721 72115 15" again, good signal. An early start,
call-up in progress when tuned in 30s before the half-hour, BK/GC just after 1933z.

First and Second Mondays in the Month $1700+1800$ UTC Schedule:-
It took a while to locate both sendings of this schedule which ran throughout 2010:-
3-Jan-11:- 1706 UTC, $3,854 \mathrm{kHz}$, unable to find the G06 YL at 1700 z but found at 1706 calling numbers 1-2-3-4-5... in German, presumably a bit of post-transmission activity sometimes noted with this schedule. Difficult copy due to a strong carrier on the HF side, possibly one of the frequencies used by the Hamburg WEFAX station. Nothing found at 1800 UTC.

The next time this schedule was due to appear was on Monday 10-January but unfortunately, I had chosen to go into work on the train and because the overhead electric wires had come adrift somewhere near Harlow Town the railway was shut down leaving large numbers of commuters stranded, me included, and by the time I got home the G06 schedule had been over for some considerable time. The unreliable, clapped-out and extremely expensive UK rail network is symbolic of everything that is wrong with this country

7-Feb-11:- 1700 UTC, $3,854 \mathrm{kHz}$, "439 43943900000 ", home just in time! Noisy frequency, reasonable copy with receiver in USB mode. About one minute after the end of transmission, around 1705 z , called numbers 1 to 9 in German several times.

1800 UTC, $4,587 \mathrm{kHz}$, second sending, much better signal than at 1700 z , must have been here on the $3^{\text {rd }}$ of January, don't know how I missed it! 14-Feb-11:- 1800 UTC, $4,587 \mathrm{kHz}$, "439 43943900000 ".
[Your's truly attempted to intercept XPA during the rush hour on a train to London Bridge. Wasn't successful as signal attenuated and the QRM from the electrics were such any signal, no metter how strong would have been swamped. However, I did receive some very queer looks from the commuters around me].

## G11 [III]

## G11 January/February log:

| 4441 kHz 2000 z | $07 / 01[262 / 00]$ Strong |
| ---: | :--- |
| 2000 z | $10 / 01[262 / 00]$ Strong |
| 2000 z | $21 / 01[265 / 372290842898749877788924039 \ldots . .26460]$ Strong, |
| 2000 z | $30 / 01[262 / 00]$ Strong |
| 2000 z | $04 / 02[260 / 360322187014106761093974937 \ldots . .08056]$ Strong, |
| 2000 z | $06 / 02[260 / 3603221 \mathrm{etc}]$ Very strong |
| 2000 z | $11 / 02[262 / 00]$ Very strong, |
| 2000 z | $18 / 02[262 / 00]+10 \mathrm{db}$ YL USB |
| 2000 z | $25 / 02[262 / 00]$ Ende 2003z Strong |
| 2000 z | $27 / 02[262 / 00]$ |


|  | RNGB | FRI |
| :--- | :--- | :--- |
|  | RNGB | SUN |
| $(10 \mathrm{~m} 30 \mathrm{~s})$ | RNGB | FRI |
|  | RNGB | SUN |
| $(10 \mathrm{~m} 38 \mathrm{~s})$ | RNGB | FRI |
|  | RNGB | SUN |
| $(3 \mathrm{~m} 22 \mathrm{~s})$ | RNGB, PLondon | FRI |
| $(3 \mathrm{~m} 21 \mathrm{~s})$ | Mndbs, PLondon | FRI |
| $(3 \mathrm{~m} 14 \mathrm{~s})$ | PLondon | FRI |
|  | RNGB | SUN |


| $6433 k H z 1325 z$ | $01 / 01[299 / 00]$ Ende1328z Strong, |
| ---: | :--- |
| $1755 z$ | $04 / 01[270 / 00]$ |
| $1325 z$ | $07 / 01[294 / 347120529732602772697893123 \ldots . .07782]$ Good |
| $1325 z$ | $08 / 01[294 / 3471205$ etc] |
| $1755 z$ | $09 / 01[270 / 00]$ Ende $1758 z$ Very strong |
| $1755 z$ | $11 / 01[270 / 00]$ |
| $1325 z$ | $14 / 01[299 / 00]$ Strong |
| $1325 z$ | $15 / 01[299 / 00]$ Good |
| $1755 z$ | $18 / 01[270 / 00]$ Good |
| $1325 z$ | $21 / 01[299 / 00]$ Fair RTTY-QRM4 |
| $1325 z$ | $22 / 01[299 / 00]$ Fair |
| $1755 z$ | $23 / 01[270 / 00]$ Ende $1758 z$ Strong |
| $1755 z$ | $25 / 01[276 / 33$ A33001 $\ldots 47719]$ Ende $1805 z$ Strong, DATA QRM3 |
| $1325 z$ | $28 / 01[299 / 00]$ Strong |
| $1325 z$ | $29 / 01[299 / 00]$ Strong |
| $1755 z$ | $30 / 01[276 / 333300151815394418206563982 \ldots . .47719]$ Very Strong |
| $1325 z$ | $04 / 02[299 / 00]$ Good |
| $1755 z$ | $06 / 02[270 / 00]$ Strong |
| $1755 z$ | $08 / 02[27 ? / 319843294090815916249503613 \ldots . .84559]$ Ende 1805 |
| $1325 z$ | $11 / 02[299 / 00]$ Fair |
| $1755 z$ | $13 / 02[270 / 319843294090815916249503613 \ldots . . .84559]$ Strong |
| $1325 z$ | $18 / 02[299 / 00]$ Fair |
| $1755 z$ | $27 / 02[270 / 00]$ |


| (3m20s) | RNGB, PLondon | SAT |
| :--- | :--- | :--- |
|  | RNGB | TUE |
|  | RNGB | FRI |
|  | RNGB | SAT |
| (3m11s) | PLondon, RNGB | SUN |
|  | RNGB | TUE |
|  | Hans, PLondon | FRI |
|  | RNGB | SAT |
|  | RNGB | TUE |
|  | Hans | FRI |
|  | RNGB | SAT |
| (3m514s) | PLondon | PLondon |
|  | Hans | TUN |
|  | Hans | FRI |
|  | RNGB, PLondon | SAT |
|  | RNGB, Hans | FRI |
|  | RNGB, PLondon | SUN |
|  | RNGB | TUE |
|  | RNGB | FRI |
|  | RNGB, Gert | SUN |
|  | RNGB, Hans | FRI |
|  | RNGB | SUN |

$\qquad$

In January I have analyzed my logs and the logs in the 2010 newsletters concerning the four S06-Skeds, which start either at full/half hour or 5 minutes later.
In 2010 the skeds have ran as follows:
Sked Day(s)
864 Sat 1600Z 1605Z
68035787 Jan/Feb/Nov/Dec 78336872 Mar/Apr/Sep/Oct 81226967 May-Aug

471 Wed 1800Z 1805Z
$35403160 \mathrm{Jan} / \mathrm{Feb} /$ Nov/Dec 57355070 Mar/Apr/Sep/Oct 67705865 May-Aug

349 Mon/Thu 1900Z 1905Z
31923838 Jan/Feb/Nov/Dec 57805127 Mar/Apr/Sep/Oct 79826984 May-Aug

405 Sat 1930Z 1935Z
31923733 Jan/Feb/Nov/Dec
5428 4512 Mar/Apr/Sep/Oct 76376782 May-Aug

Here are the results:

|  | 864 | 471 | 349 | 405 |
| :--- | :---: | :---: | :---: | :---: |
| possible Logs $(100 \%)$ | --- | -- | -- | --- |
| logged | 52 | 52 | 104 | 52 |
|  | 43 | 36 | 92 | 37 |
|  | $=83 \%$ | $=69 \%$ | $=88 \%$ | $=71 \%$ |

xx00/xx30 slot 13=30\% 32=89\% 43=47\% 21=57\%
$\mathrm{xx} 05 / 0035$ slot $\quad 30=70 \% 4=11 \% 49=53 \% 16=43 \%$
$\begin{array}{lllll}\text { stays on the slot } & 19 & 22 & 44 & 12\end{array}$
$\begin{array}{lllll}\text { changes the slot } & 16 & 3 & 35 & 12\end{array}$
maximum number of
consecutive logs on
$\begin{array}{lllll}\text { the same slot } & 8 & 7 & 7 & 3\end{array}$

* 864 likes the 2nd time slot
* 471 likes the 1st time slot
* 471 likes to stay on the slot

Thanks Hans-Friedrich
Now onto logs
S06 [IA]
We start with RNGB's logs

## S06 January log:

| Saturday | 1st | 16.05 | 6788 | '134' 00000 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 19.35 | 3842 | '366' 00000 |
|  |  | 20.30 | 4859 | '703' 00000 |
|  |  | 21.30 | 4024 | '703' 00000 |
| Monday | 3rd | 19.00 | 3192 | '349' 00000 |
| Weds | 5th | 18.00 | 3540 | '471' 00000 |
| Thursday | 6th | 19.00 | 3192 | '349' 00000 |
| Saturday | 8th | 16.00 | 7728 | '134’ 00000 |
|  |  | 19.35 | 3842 | '366' 00000 |
| Monday | 10th | 19.05 | 3838 | '349' 00000 |
|  |  | 21.15 | 6920 | '121' 00000 |
|  |  | 22.15 | 5175 | '121' 00000 |
| Weds | 12th | 18.00 | 3540 | '471' 00000 |
| Thursday | 13th | 19.05 | 3832 | '349' 00000 |
| Saturday | 15th | 16.05 | 6788 | '134' 00000 |
|  |  | 19.35 | 3842 | '366' 00000 |
|  |  | 20.30 | 4859 | '703' 00000 |
|  |  | 21.30 | 4024 | '703' 00000 |
| Monday | 17th | 19.05 | 3838 | '349' 00000 |


| Weds | 19th | 18.00 | 3540 | '471' 00000 |
| :--- | :--- | :--- | :--- | :--- |
| Thursday | 20th | 19.05 | 3838 | '349' 00000 |
| Saturday | 22nd | 19.30 | 3209 | $' 366 ' 00000$ |
| Monday | 24th | 19.05 | 3838 | $' 349 ' 00000$ |
| Thursday | 27th | 19.05 | 3838 | $' 349 ' 00000$ |
| Monday | 31st | 19.05 | 3838 | $' 349 ' 00000$ |

S06s January log:

Monday
3rd/10th 1300/1310 17th/24th 3rd/10th 1600/1610 17th/24th

Tuesday
4th/11th 0700/0715 18th/25th 4th/11th 0800/0810 18th/25th 4th/11th 0800/0810 18th/25th 4th/11th 1230/1240 18th/25th 4th/11th $1500 / 1510$

## Wednesday

5th/12th 0530/0540 5th/12th 0820/0830 19th/26th 5th/12th 0830/0840 19th/26th 5th/12th 0840/0850 19th/26th 5th/12th 1000/1010 19th/26th 5th/12th 1200/1210 5th/12th 1230/1240 19th/26th 5th/12th 1900/1910 19th/26th

Thursday
6th E17z 0800/0810
20h/27th
6th/13th 0900/0910 20th/27th
6th/13th 1000/1010 6th/13th $1200 / 1210$ 20th/27th 6th/13th 1230/1240 20th/27th 6th/13th $1400 / 1410$ 20th/27th

## Friday

7th/14th 0600/0610 21st/28th 7th/14th 0700/0710 21st/28th 7th/14th 0930/0940 21st/28th

| Saturday |  |
| :--- | :--- |
| 1st/8th | $1000 / 1010$ |
| 1st | $1200 / 1210$ |

S06 February log:

| Saturday | 5th | 16.00 |
| :--- | :--- | :--- |
|  |  | 20.30 |
| Monday | 7th | 19.00 |
| Tuesday | 8th | 18.01 |
| Weds | 9th | 18.00 |
|  |  | 18.20 |
| Saturday | 12th | 19.35 |
| Monday | 14th | 19.05 |
|  |  | 21.15 |
| Weds | 16th | 09.30 |
|  |  | 09.37 |
|  |  | 10.00 |
|  |  | 13.00 |
|  |  | 18.00 |

8420/10635 '831’24565703981842 30618749255223577495
'831' 96052579208355298446227545274
'176’ 82453678785845091678755462236
'176’ 94054740558375752865588523175

5250/6320 ‘374’90156743890675 342166644189801 '374’ 91057305827455432275459054457 '418' 27955455595753273381374197884 ‘418’ 29657823490187354702901790761 '352' 4186358445524105370029446380753512 '352' 4716716253890078126675438817651064 '278' 43952016329076567054556252562 '278' 49358976534261673398211090126 ‘537’ 49683468217455551224099514557980457151495672 ‘537’ 4896892316783267543321890192998456
'153' Not Heard
'471’ 96350181827544253035854541615
'471’ 29856874523123908564531267453
'745' 9826300548775803585421473996780064
'745' 8126671446662504575552753479376669
'328' 97459207258140755543541257166
'328' 4056559550965355586242582844440313
‘729’ 84659804595672715148330246457
'729' 46355409155565566810996657259
'481' Not heard
'967’ 82151535701898731244227776294 '967'
'371' No copy due heavy QRM
'371’ 84958715556219957575505542915

11170/982
‘674’ 28955453564029894264508506303
12952/13565 '167’ 84057734487605528245554243572
'167’ 52084173768304835545612185805435645508056419
'895' Not heard
'425’ 968757975129934472189844835265582748955
‘425’ 9386489764454 ? 62722356067552564551
‘ 314 ’ 8956095375441585642786165947788254
'314’ 8576 15357..... (tks Fritz)
'624’ 87354723248915574543856411565
'624' 87053468217455551224099514557

5460/7070 '934’ 2506918465647390199320675608177813
'934’ 86759922877544048165655751269
'196’ 24353350957342988351633986219
'196’ 23856320721065634507965155298
‘516’ 239745232233934781646855344931623438161 ‘516’ 980789765674320987657632098126875468745

```
6440/5660
```

? /8260
'893' Not heard
'254' 9306055846602971779307584176958711

| 7728 | '134' 00000 |
| :---: | :---: |
| 4859 | '703' 00000 |
| 3192 | '349 ‘00000 |
| 3645 | '617' 00000 |
| 3540 | '471' 00000 |
| 4528 | '632' 00000 |
| 3842 | '366' 00000 |
| 3838 | '349' 00000 |
| 6965 | '684' 00000 |
| 9225 | '480' 2951385647671606772614892 97912.... 42252 |
| 9225 | '480 '625 31649615951324028 93420..... 70755 |
| 6810 | '480' 2951385647671606772614892 97912..... 42252 |
| 8130 | '480' $295138564767160677261489297912 \ldots . .42252$ |
| 3540 | '471' 00000 |


| Thursday | 17th | 19.05 | 3838 | '349’ 00000 |
| :---: | :---: | :---: | :---: | :---: |
| Saturday | 19th | 16.05 | 6788 | '134' 00000 |
| Saturday | 19th | 19.35 | 3842 | '366' 00000 |
| Saturday | 19th | 20.30 | 4859 | '703' 00000 |
| Saturday | 19th | 21.30 | 4024 | '703' 00000 |
| Monday | 21st | 09.30 | 9225 | '480' 1794318018133791904258211 07282..... 85407 |
|  |  | 10.00 | 6810 | '480' $179431801813379190425821107282 . . . .85407$ |
|  |  | 13.00 | 8130 | '480' $179431801813379190425821107282 . . . .85407$ |
|  |  | 13.30 | 5765 | '480' $179431801813379190425821107282 \ldots . .85407$ |
| Tuesday | 22nd | 09.30 | 9225 | '480' 317421348387729643440989252860 .... 77843 |
| Monday | 28th | 09.30 | 9225 | '480' 9534185087369754342834313 50693..... 62700 |
|  |  | 13.00 | 8130 | '480' 9534185087369754342834313 50693..... 62700 |
|  |  | 19.05 | 3838 | '349' 00000 |
|  |  | 22.15 | 5320 | '684’ 00000 |

## S06s February log:

| Monday |  |  |  |
| :---: | :---: | :---: | :---: |
| 7th/14th | 1300/1310 | 8420/10635 | '831' 42051127827524650868757425229 |
| 7th/14th | 1600/1610 | 7436/6668 | '176' 84052013355091850644252491545 |
| Tuesday |  |  |  |
| 1st/8th | 0700/0715 | 5250/6320 | '374’ 91856119094855551463118864389 |
| 15th/22nd |  |  | '374' 28569985978916591945030875427902440 |
| 1st/8th | 0800/0810 | 5810/7440 | '418' 29354596467644314558112815805 |
| 15th/22nd |  |  | '418' 23052837645638099812445189125 |
| 1st/8th | 0800/0810 | 10265/9135 | '352' 4816156329671342597508556454535274 |
| 15th/22nd |  |  | '352' 4806983645891230092556182097834299 |
| 1st/8th | 1230/1240 | 5810/6770 | '278' 4156992287754404816565575126903176 |
| 15th/22nd |  |  | '278' 43650091187692345266777256565 |
| 1st/8th | 1500/1510 | 5070/6337 | ‘537' 9246512690317658842554997226355285 |
| 15th/22nd |  |  | ‘537' 9806899764532267548019287364522287 |
| Wednesday |  |  |  |
| 2nd/9th | 0530/0540 | 9435/11075 | '153' 428 (too weak to copy) |
| 2nd/9th | 0820/0830 | 6880/7840 | '471' 98051144743116725323128289451 |
| 16th/23rd |  |  | '471' 2356723968887541888517954354954952 |
| 2nd/9th | 0830/0840 | 7335/11830 | '745' 9306673785514850485615756032540853 |
| 16th/23rd |  |  | '745' 8396108525396814576055119553864437 |
| 2nd/9th | 0840/0850 | 9260/11415 | '328' 94154615419736255128942875975 |
| 16th/23rd |  |  | '328' 47658943859459121217531856438 |
| 2nd/9th | 1000/1010 | 12365/14280 | '729' 83657341724553684405852457557 |
| 16th/23rd |  |  | '729’ 4506911507252450500389871414872984 |
| 16th | 1200/1210 | 7030/6305 | '481' 293579845 etc (Fritz) |
| 9th | 1230/1240 | 4580/6420 | '967' 81054215464612111230020114767 |
| 2nd/9th | 1900/1910 | 8530/7520 | '371' 85960174125847 1354-44252 7545455444 |
| Thursday |  |  |  |
| 3rd E17z | 0800/0810 | 11170/9820 | '674’ 29858172635647901827336590673 |
| 17th/24th |  |  | '674' 28154611644104282146958321495 |
| 3rd/10th | 0900/0910 | 12952/13565 | '167' 94356542318902567483902667439 |
| 17th/24th |  |  | '167' 98357855504126722704180654354 |
| 3rd/10th | 1200/1210 | 12155/10920 | '425' 8196342786754318902789926651090125 |
| 17th/24th |  |  | '425' 9716956134155282642357025558181292 |
| 3rd/10th | 1230/1240 | 7865/5310 | '314' 98658792367240918554537899213 |
| 17th/24th |  |  | '314' 5706697864300375559293176314453575 |
| 3rd/10th | 1400/1410 | 5320/4845 | '624’ 83159082312873672397782167543 |
| Friday |  |  |  |
| 4th/11th | 0600/0610 | 5460/7070 | '934' 27156752145320892017854310295 |
| 18th/25th |  |  | '934' 28650564785053250480449358656 |
| 4th/11th | 0700/0710 | 7150/8215 | '196' 28756789145630903367823182564 |
| 18th/25th |  |  | '196' 40754356155146669376015917855 |
| 4th/11th | 0930/0940 | 11780/12570 | ‘516’ 423778645907864532134265786349067477312 |
| 18th/25th |  |  | '516’ 240775262042519859441617572537141211873 |
| Saturday |  |  |  |
| 5th | 1210 | 8260 | ‘254’ 9306055846602971779307584176958711 <br> Same message as last month! |

Thursday ID 425 changed frequencies this month from 10580/9950 to 12155/10920 12155 and 10920 were 2 of the 6 frequencies used at the end of last year when sending null messages.

A search through my database brings up some interesting discoveries. These 5 figure message strings are far from unique.
Many being repeated throughout the year, and not all groups in the string are sent. Look at the last example. It seems to continue with the message string of 99228 7754404816565575126903176 etc.
Maybe it's not important because they're all DUMMY messages? Who knows?

Examples are -

| Tuesday | 04/01/2011 | 12.30 | 5810 | 27843952016329076567054556252562 |
| :---: | :---: | :---: | :---: | :---: |
| Tuesday | 07/12/2010 | 15.00 | 5070 | 53794682016329076567054556252562632072106563450 |
| Thursday | 27/01/2011 | 14.00 | 5320 | 62487053468217455551224099514557 |
| Tuesday | 14/12/2010 | 12.40 | 6770 | 2784356346821745555122409951455798045 |
| Weds | 15/12/2010 | 12.00 | 7030 | 4812576346821745555122409951455798045 |
| Tuesday | 04/01/2011 | 15.00 | 5070 | 53749683468217455551224099514557980459567271514 |
| Weds | 05/01/2011 | 12.40 | 6420 | 96782151535701898731244227776294 |
| Tuesday | 27/04/2010 | 08.10 | 9840 | 4185976153570189873124422777629498045 |
| Friday | 21/01/2011 | 07.00 | 7150 | 19623856320721065634507965155298 |
| Monday | 06/09/2010 | 12.00 | 9145 | 83146956320721065634507965155298 |
| Friday | 23/07/2010 | 06.00 | 8340 | 93420856119094855451463118854004 |
| Tuesday | 01/02/2011 | 07.00 | 5250 | 37491856119094855551463118864389 |
| Weds | 15/12/2010 | 12.40 | 6420 | 96728359922877544048165655751269 |
| Friday | 21/01/2011 | 06.00 | 5460 | 93486759922877544048165655751269 |
| Tuesday | 01/02/2011 | 12.30 | 5810 | 2784156992287754404816565575126903176 |
| Tuesday | 27/04/2010 | 08.00 | 11635 | 3528679992287754404816565575126903176588425549972223 |
| Tuesday | 09/03/2010 | 15.00 | 6464 | 5374186512690317658842554497222355285 |
| Tuesday | 01/02/2011 | 15.00 | 5070 | 5379246512690317658842554997222355285 |

And now on to all others:
January 2011

| $3540 \mathrm{kHz} \mathrm{1800z}$ | 12/01[471 00000] | FN | WED |
| :---: | :---: | :---: | :---: |
| $3838 \mathrm{kHz} \mathrm{1905z}$ | 17/01[349 00000] 1909z Strong | Hans | MON |
| 1905z | 20/01[349 00000] USB, very strong noise | FR | THU |
| 3842kHz 1935z | 08/01[366 00000] 1939z Strong | Hans | SAT |
| 5175kHz 2215z | 24/01[121 12112100000$]$ | FN | MON |
| 9260kHz0840z | 12/01[328 974592072 ] | GD | WED |
| 9463kHz 1200z | 31/01[801 9754057387 ... 026519754000000 (f)] S8 OM very clear 80197540 <br> 57387000041307911610580599030831140435306906577591 <br> 70316315090864007171395688673217128240491031009998 <br> 90995258458354974977206229560147921534244646259402 <br> 54373023912131883301798844549563959285031359502651 <br> 9754000000 (f) | Mndbs | MON |

## S06c

S06c looks like some sort of simple call-up system (maybe a voice version of X06?)
They usually last for 4 minutes and are often repeated on another frequency within 10 minutes.
Each frequency has a specific call-up. They all start with the figure 11 and there are 1,000 possible IDs
Looking into my logs I have found the following:

Call-up ID
11001
11007
11012
11019
11021
11059
11060

11157
11160
11191
11391
11625
11715
11808
11915
11960

11135, 13395, 13445
Frequencies
9104, 11168, 16303
12063, 16203 14418, 14910, 16212
5282
15987

12210
10810
14480
14730
6915 7823, 8171
7590 4819, 6779 12085 8185

## Date heard

SEP07, MAY09
JUL09, DEC10
APR10
NOV07
JUL10
APR09
DEC08, MAY10
JUN04
JUL10
MAR03
APR10
NOV06
AUG10, DEC10
OCT06
DEC10
JUL09
MAY04

| $4845 \mathrm{kHz} \mathrm{1410z}$ | 27/01[624 87053468217455551224099514557870500000$]$ Weak | Hans | THU |
| :---: | :---: | :---: | :---: |
| $5070 \mathrm{kHz} \mathrm{1500z}$ | 18/01[537 48968923167832675433218901929984564896 00000] Weak/Fair | Hans | TUE |
| 1500z | 25/01[537 4896892316783267543321890192998456489600000$]$ Weak | Hans | TUE |
| 5250 kHz 0700 z | 04/01[374 901567438906753421666441898019015 00000]Fair/Strong | Hans | TUE |
| $5310 \mathrm{kHz} \mathrm{1240z}$ | 13/01[314 8956 09537] | FN | THU |
| 1240z | 27/01[314 8576 15357] | FN | THU |
| 5320 kHz 1400 z | 27/01[624 87053468217455551224099514557870500000 ] Fair/Strong | Hans | THU |
| $5810 \mathrm{kHz} \mathrm{0800z}$ | 11/01[418 27955455595753273381374197884279500000$]$ Strong with hum | Hans | TUE |
| 1230z | 18/01[278 4935 89765] | FN | TUE |
| $6305 \mathrm{kHz} \mathrm{1210z}$ | 12/01[481973 5 20163] | FN | WED |
| $6320 \mathrm{kHz} \mathrm{0715z}$ | 04/01[374 901567438906753421666441898019015 00000]Strong | Hans | TUE |
| 0715z | 11/01[374 901567438906753421666441898019015 00000] Strong | Hans | TUE |
| $6420 \mathrm{kHz} \mathrm{1240z}$ | 12/01[967 8215 15357] | FN | WED |
| $6770 \mathrm{kHz} \mathrm{1240z}$ | 18/01[278 4935 89765] | FN | TUE |
| 1240z | 25/01[278 493589765342516733982110901264935 00000] Weak | Hans | TUE |
| $6880 \mathrm{kHz} \mathrm{0820z}$ | 12/01[471 963501818 ] | FN | WED |
| 0820z | 26/01[471 29856874523123908564531267453 00000] Weak/Strong | FR | WED |
| $7030 \mathrm{kHz} \mathrm{1200z}$ | 12/01[481 9735 20163] | FN | WED |
| 7335kHz 0830z | 05/01[745 98263005487758035854214739967 8] Ended abruptly, 6th group unfinished Fair | Hans | WED |
| 0830z | 12/01[745 9826300548775803585421473996780064982 600000] Strong with hum | Hans, GD | WED |
| 0830z | 19/01[745 8126671446662504575552753479376669812600000 ] Fair | Hans, FN | WED |
| 0830z | 26/01[745 8126671446662504575552753479376669 00000] Very strong signal, weak noise | FR | WED |
| 7440kHz 0810z | 04/01[418 27955455595753273381374197884279500000 ] Strong | Hans | TUE |
| 7840kHz 0830z | 12/01[471 963501818 ] | FN | WED |
| 0830z | 26/01[471 29856874523123908564531267453 00000] Very strong signal, 5/5 | FR | WED |
| 7865kHz 1230z | 06/01[314 89560953754415856427861659477882548956 00000] Strong | Hans | THU |
| 1230z | 13/01[314 8956 09537] | FN | THU |
| 1230z | 27/01[314 8576 15357] | FN | THU |
| 8215kHz 0710z | 14/01[196 243] RE FRI |  |  |
| $8420 \mathrm{kHz} \mathrm{1300z}$ | 03/01[831 2456570398184230618749255223577495245600000$]$ Weak/Fair QSB2 | Hans | MON |
| 1300z | 17/01[831 96052579208355298446227545274960500000 ] Weak | Hans | MON |
| $9135 \mathrm{kHz} \mathrm{0810z}$ | 11/01[352 4186358445524105370029446380753512418600000$]$ Strong QSB2 |  |  |
|  | (Weak ID418 on 7440kHz heard in the background) | Hans | TUE |
| 0810z | 18/01[352 471671625 ] | FN | TUE |
| 9260 kHz 0840 z | 19/01[328 40565595509653555862425828444403134056 00000] Weak/Fair | Hans | WED |
| 9950 kHz 1210 z | 13/01[167 840577344 ] | FN | THU |
| $10265 k H z ~ 0800 z$ | 04/01[352 4186358445524105370029446380753512418600000$]$ Strong XJT-QRM3 | Hans | TUE |
| 0800z | 18/01[352 471671625 ] | FN | TUE |
| $10580 \mathrm{kHz} \mathrm{1200z}$ | 13/01[167 840577344 ] | FN | THU |
| $10635 \mathrm{kHz} \mathrm{1310z}$ | 03/01[831 24565703981842306187492552235774952456 00000] Fair | Hans | MON |
| 1310z | 10/01[831 2456570398184230618749255223577495245600000 ] Weak/Fair QSB2 | Hans | MON |
| 1310z | 17/01[831 96052579208355298446227545274960500000$]$ Weak | Hans | MON |
| 11415 kHz 0850 z | 05/01[328 97459207258140755543541257166974500000$]$ Strong | Hans | WED |
| $11780 \mathrm{kHz} \mathrm{0930z}$ | 14/01[516 239] | RE | FRI |
| 0930z | 21/01[516 9807897656743209876576320981268754687459807 00000] BCQRM4/5 | Hans | FRI |
| $11830 \mathrm{kHz} \mathrm{0844z}$ | 05/01[745 98263005487758035854214739967800649826 00000] 0850z 4m late Strong | Hans | WED |
| 0840z | 19/01[745 812667144 ] | FN | THU |
| 0840z | 26/01[745 8126671446662504575552753479376669 00000] Strong signal, high pitched noise | FR | WED |
| 12365 kHz 1000 z | 12/01[729 84659804595672715148330246457846500000$]$ Strong | Hans, FN | WED |
| 1000z | 26/01[729 4635 54091] | FN, SL | WED |
| 12570 kHz 0940 z | 21/01[516 9807897656743209876576320981268754687459807 00000] XJTQRM | Hans | FRI |


| 12952 kHz 0900 z | $06 / 01[16784057734487605528245554243572840500000]$ Fair/Strong |
| ---: | :--- |
| 0900 z | $13 / 10[167840577344]$ |
| 0900 z | $27 / 01[16752084173768304835545612185805435645508056419520800000]$ Strong |
|  |  |
| 13565 kHz 0910 z | $06 / 01[16784057734487605528245554243572840500000]$ Strong |
| 0910 z | $13 / 01[167840577344]$ |
| 0910 z | $27 / 01[167]$ |
|  |  |
| 14280 kHz 1010 z | $05 / 01[72984659804595672715148330246457846500000]$ Strong HAMQRM4 |
| 1010 z | $12 / 01[729846598045]$ |
| 1010 z | $26 / 01[729463554091]$ |


| Hans | THU |
| :--- | :--- |
| FN | THU |
| Hans, BXMS | THU |
|  |  |
| Hans | THU |
| FN | THU |
| BXMS | THU |
|  |  |
| Hans | WED |
| FN | WED |
| FN, SL | WED |

February 2011
S06

| 3645kHz 1802z | 08/02[617 617617 00000] | FR | TUE |
| :---: | :---: | :---: | :---: |
| 3838 kHz 1907z | 03/02[349 349349 00000] QSA2, stopped 1909z | JanO | THU |
| $3842 \mathrm{kHz} \mathrm{1935z}$ | 12/02[366 00000] Fair/Strong | Hans | SAT |
| 1935z | 19/02[366 00000] Strong | Hans | SAT |
| 5765kHz1330z | 21/02[480 179/43 1801813379 ... 85407] 1341z Fair/Strong DIGIQRM | Hans | MON |
| 1330z | 28/02[480 953/41 8508735975 .... 62700] 1341z Strong | Hans | MON |
| 6810kHz1000z | 21/02[480 179/43 1801813379 ... 85407] Weak | Hans | MON |
| $6880 \mathrm{kHz} \mathrm{0820z}$ | 02/02[471 98051144743116725323128289451 00000] Strong, weak noise | FR, FN | WED |
| 7150kHz 0700z | 04/02[196 28756789145630903367823182564 00000] very strong, BCQRM | FR | FRI |
| 0700z | 11/02 [196 28756789145630903367823182564 00000] Strong signal,distorted audio | FR | FRI |
| 7353kHz 0938z | 04/02 OM in progress, strong. Ending: ... 02215355936425300000 . Ended 0946z. | Hans | FRI |
| 7840 kHz 0830 z | 02/02[471 98051144743116725323128289451 00000] Strong, weak noise | FR, FN | WED |
| 8130kHz 1300z | 21/02[480 179/43 1801813379 ... 85407] 1311z Fair/Strong | Hans | MON |
| 1300z | 28/02[480 953/41 8508735975 .... 62700] 1311z Weak/Fair | Hans | MON |
| 8215kHz 0710z | 04/02[19628756789145630 903367823182564 00000] very strong | FR | FRI |
| 0710z | 11/02 [196287567891 45630903367823182564 00000] Very strong signal | FR | FRI |
| 9225kHz 0930z | 14/02[480 735217268723869 ... 20879; 480976236842989817 ... 24373 00000] 0943z two msgs. | HansHans $\quad$ MON |  |
|  | Weak, QSB2 |  | MON |
| 0930z | 21/02[480 179/43 1801813379 .... 85407] 0941z V.weak/Weak |  |  |

## S06s

| 4580 kHz 1230z | 02/02[hardly audible voice] |
| :---: | :---: |
| 5070 kHz 1500 z | 01/02[537 924651269 ] |
| 1500z | 08/02[537 924651269 ] |
| 1500z | 22/02[537 98068997645322675480192873645222879806 00000] Weak |
| 5250 kHz 0700z | 08/02[374 918561190 ] |
| 5320 kHz 1400 z | 10/02[624 8315 90823] |
| 5460 kHz 0600z | 04/02[934 27156752145320892017854310295 00000] very strong, QSB |
| 0600z | 11/02[934 271/5 6752145320892017854310295 00000] Strong signal |
| 0600z | 18/02[934 286505647850332504804493586562865 00000] Fair/Strong |
| 0600z | 25/02[934 28650564785053250480449358656286500000 ] |
| 5810 kHz 0800z | 01/02[418 293545964676443145581128158052935 00000] Strong |
| 0810z | 08/02[418 293545964676443145581128158052935 00000] Strong |
| 1230z | 08/02[278 415699228 ] |
| $6270 \mathrm{kHz} \mathrm{1420z}$ | 24/02[624 00000] Strong |
| 6305 kHz 1210 z | 16/02[481 293579845 ] |
|  | 08/02[374 918561190948555514631188643899185 00000] (2 mins late) 15/02[374 2856 ... 00000] 0720z Weak |


| FN | WED |
| :--- | :---: |
| FN | TUE |
| FN | TUE |
| Hans | TUE |
| FN | TUE |
|  |  |
| FN | THU |
|  |  |
| FR | FRI |
| FR, Han, SL | FRI |
| Hans | FRI |
| FR, Hans, SL | FRI |
| Hans | TUE |
| Hans, FN | TUE |
| FN | TUE |
| Hans | THU |
|  |  |
| FN | WED |
| Hans, FN | TUE |
| SL | TUE |


| $\begin{array}{lll}6337 \mathrm{kHz} & 1510 \mathrm{z} & 01 / 02[537924651269] \\ & 1510 \mathrm{z} & 08 / 02[537924651269]\end{array}$ |  | FN | TUE |
| :---: | :---: | :---: | :---: |
|  |  | FN | TUE |
| $6420 \mathrm{kHz} \mathrm{1240z}$ | 02/02[967 8105 42154] bad QRM MMS | FN | WED |
| 1240 z | 09/02[967 $81054215464612111230020114767810500000(\mathrm{~s})$ ] Strong | Hans | WED |
| $6668 \mathrm{kHz} \mathrm{1610z}$ | 14/02[176 840520133550918506442524 91545]Gert, FN MON |  |  |
| $\begin{array}{r} 6770 \mathrm{kHz} 1240 \mathrm{z} \\ 1430 \mathrm{z} \end{array}$ | 08/02[278415 9922877544048165655751269031764156 00000] Strong | Hans, FN | TUE |
|  | 24/02[624 00000] Strong | Hans | THU |
| $6810 \mathrm{kHz} \mathrm{1000z}$ | 22/02[480 317/42 1348387729 .... 77843] 1011z Weak | Hans | TUE |
| 6880 kHz 0820 z0820 z | 02/02[471 98051144743116725323128289451 00000] Strong, weak noise | FR | WED |
|  | 16/02[471 2356723758887541888517954354954952 00000] Medium to strong signal, QRM | FR | TUE |
| $7030 \mathrm{kHz} \mathrm{1200z}$ | 16/02[481 2935 79845] | FN | WED |
| $\begin{array}{r} 7150 \mathrm{kHz} 0700 \mathrm{z} \\ 0700 \mathrm{z} \end{array}$ | 18/02[196 407543561 ] | FN | FRI |
|  | 25/02[196 407543561551463693760159178554075 00000] Very strong signal, QRM | FR, Hans | FRI |
| 7335 kHz 0830z | 02/02[745 9306673785514850485615756032540853 00000] Strong, weak noise | FR, Hans, FN | WED |
| 0830z | 09/02[745 $9306673785514850485615756032540853930600000(s)]$ Fair/Strong | Hans | WED |
| 0830z | 16/02[745 8396108525396814576055619553864407 00000] Weak signal, QRM | FR | TUE |
| 0830z | 16/02[745 8396 ... 00000] 0835z Weak | SL | WED |
| 0830z | 23/02[745 8396 ... 00000] 0835z Good | SL | WED |
| 7436kHz 1600z | 14/02[176 8405 20133] | FN | MON |
| 7440 kHzz0810 z0810 z | 08/02[418 2935 45964] | FN | TUE |
|  | 22/02[418 230528376456380998124451891252305 00000] Strong | Hans | TUE |
| $7520 \mathrm{kHz} \mathrm{1910z}$ | 09/02[371 8596 01741]BCQRM | FN | WED |
| 7840 kHz 0830 z | 16/02[471 2356723758887541888517954354954952 00000]] Strong signal QRM | FR | TUE |
| $7865 \mathrm{kHz} \mathrm{1230z}$ | 10/02[314 9865 87923] | FN | THU |
| $8130 \mathrm{kHzz} \mathrm{1300z}$ | 22/02[480 317/42 1348387729 .... 77843] Fair | Hans | TUE |
| 8215kHz 0710z | 18/02[196 407543561 ] | FN | FRI |
| 0710z | 25/02[196 407543561551463693760159178554075 00000] Very strong signal, QRM | FR | FRI |
| $\begin{array}{r} 8420 \mathrm{kHz} 1300 \mathrm{z} \\ 1300 \mathrm{z} \end{array}$ | 07/02[831 $42051127827524650868757425229420500000(s)$ ] Fair | Hans | MON |
|  | 14/02[831 420511278 ] | FN | MON |
| $8530 \mathrm{kHz} \mathrm{1900z}$ | 09/02[371 8596 01741] weak signal | FN | WED |
| 9135 kHz 0810 z | 01/02[352 48161563296713425975085564545352744816 00000] Fair | Hans | TUE |
| 9225 kHz 0930 z | 22/02[480 317/42 1348387729 .... 77843] 0941z Weak/Fair QSB2 | Hans | TUE |
| $9260 \mathrm{kHz} \mathrm{0840z}$ | 02/02[328 9415 46154] | FN | WED |
| 10635 kHz 1310 z | 14/02[831 4205 11278] | FN | MON |
| $10920 \mathrm{kHz} \mathrm{1210z}$ | 24/02[425 971695613415528264235702555818129297160000 0]QSA5 | JanO | THU |
| 11415 kHz 0850z | 02/02[3289415 46154] | FN | WED |
| 11780kHz 0930z | 04/02[516 4237786459078645321342657863490674 77312] Strong signal, BCQRM | FR, FN | FRI |
| 0930z | 11/02[516 423778645907864532134265786349067477312 00000] Strong, QRM | FR | FRI |
| 0930z | 18/02[516 2407752620425198594416175725371412118732407 00000] Strong BC-QRM3 | Hans | FRI |
| 0930z | 25/02[516 240775262042519859441617572537141211873240700000 ] Strong signal,QRM, QSB | FR, SL | FRI |
| 11830kHz 0840z | 02/02[745 930667378 ] | FN | WED |
| 0840z | 16/02[745 8396108525396814576055619553864407 00000] Strong signal, QRM | FR, SL | TUE |
| 12155 kHz 1200 z | 24/02[425 9716956134155282642357025558181292971600000$] 1205 z$ QSA5 | JanO | THU |
| 12365kHz 1000z | 02/02[729 8365 73417] | FN | WED |
| 1000z | 09/02[729-836/5=73417 245536844058524 57557] Strong | Gert | WED |
| 1000z | 16/02[729 4506 91150] | FN, SL | WED |
| 1000z 23/02[729 4506 ... 00000] 1005z Weak |  | SL | WED |
| 12570kHz 0940z | 04/02[516 4237786459078645321342657863490674 77312] Very weak signal, QRM | FR, FN | FRI |
| 0940z | 11/02[516 423778645907864532134265786349067477312 00000] Strong,QRM | FR | FRI |
| 0940z | 25/02[516 240775262042519859441617572537141211873240700000 ] Strong signal, QRM | FR, SL | FRI |
| $\begin{array}{r} 12952 \mathrm{kHz} 0900 \mathrm{z} \\ 0900 \mathrm{z} \end{array}$ | 03/02[167 9435 65423] | FN | THU |
|  | 24/02[167 98357855504126722704180654354983500000$]$ Fair | Hans, SL | THU |

14280 kHz 1010z

PoSW's S06 logs:
Saturday 1600 or 1605 UTC Schedule:-
1-Jan-11:- 1605 UTC, $6,788 \mathrm{kHz}$, "134 13413400000 ". This schedule continues in 2011
with a different "call" - was " 864 " last year, and different frequencies no doubt although in the same part of the short-wave spectrum. Carrier with tone noted while tuning around at 1558 UTC, close to strong "XJT", single spoken " 134 " a minute or so afterwards confirmed S06 pre-transmission warm-up.

15-Jan-11:- 1605 UTC, $6,788 \mathrm{kHz}$, "134 13413400000 ", the noise-maker still roaring away,
S06 reasonable copy with the receiver in USB mode.
12-Feb-11:- 1605 UTC, $6,788 \mathrm{kHz}$, "134 13413400000 ", still with "XJT".

Saturday 1930 or 1935 UTC Schedule:-
1-Jan-11:- 1935 UTC, $3,842 \mathrm{kHz}$, "366 36636600000 ", up to S8, interference free channel.
Another survivor into a new year, ran in 2010 with call " 405 ".
8-Jan-11:- 1935 UTC, 3,842 kHz, "366 36636600000 ".
15-Jan-11:- 1935 UTC, $3,842 \mathrm{kHz}$, "366 36636600000 ", much weaker signal than on past two occasions.
5-Feb-11:- 1935 UTC, 3,842 kHz, "366 36636600000 ", weak signal.
19-Feb-11:- 1935 UTC, $3,842 \mathrm{kHz}$, "366 36636600000 ", good signal peaking over S9, much better than last time.

New Saturday 2030 UTC Schedule - well, new to me anyway:-
1-Jan-11:- 2030 UTC, $4,859 \mathrm{kHz}$, S06 with, "703 70370300000 ", strength S7. A chance discovery while searching for the Saturday 2030 or 2035 UTC G06 German YL which ran last year, not found this evening.

15-Jan-11:- 2030 UTC, $4,859 \mathrm{kHz}$, "703 70370300000 ". Carrier with tone up 2017z, single "703" 2018z

5-Feb-11:- 2030 UTC, $4,859 \mathrm{kHz}$, "703 70370300000 ", weak signal, carrier up on 4,859 at 2022 UTC.

19-Feb-11:- 2030 UTC, $4,859 \mathrm{kHz}$, "703 70370300000 ", strength S9.

Monday + Thursday 1900 or 1905 UTC Schedule:-
3-Jan-11, Monday:- 1900 UTC, $3,192 \mathrm{kHz}$, "349 34934900000 ". Same "call" and 1900 z frequency as in the last months of 2010.
6-Jan-11, Thursday:- 1900 UTC, $3,192 \mathrm{kHz}$, "349 34934900000 ", "XJT" on close frequency.
13-Jan-11, Thursday:- 1905 UTC, $3,832 \mathrm{kHz}$, "349 34934900000 ", $3,838 \mathrm{kHz}$ more usual for the 1905 z start, monitored 3,838 and thought this schedule had gone since nothing was heard on 3,192 at 1900 z .

17-Jan-11, Monday:- 1905 UTC, $3,838 \mathrm{kHz}$ - back on a familiar frequency - "349 349349 00000", weak signal.
20-Jan-11, Thursday:- 1905 UTC, $3,838 \mathrm{kHz}$, "349 34934900000 ", very weak.
24-Jan-11, Monday:- 1905 UTC, 3,838 kHz, "349 34934900000 ", weak signal.

27-Jan-11, Thursday:- 1905 UTC, $3,838 \mathrm{kHz}$, "349 34934900000 ", peaking S7, not exactly a "rock crusher" but considerably stronger than of late.

3-Feb-11, Thursday:- 1905 UTC, $3,838 \mathrm{kHz}$, "349 349349 00000", back to being a weak signal.
14-Feb-11, Monday:- 1905 UTC, $3,838 \mathrm{kHz}$, "349 34934900000 ", and back up to S8 to S9.
24-Feb-11, Thursday:- 1905 UTC, $3,838 \mathrm{kHz}$, "349 34934900000 ", good signal, peaking over S9.

Wednesday 1800 UTC Schedule:-
29-Dec-10:- $3,540 \mathrm{kHz}$, "471 47147100000 ", strong signal inside 80 metre amateur band, weak CW on close frequency.

5-Jan-11:- $3,540 \mathrm{kHz}$, "471 47147100000 ", exactly the same as in the last two months of 2010 , then
12-Jan-11:- 3,540 kHz, "471 47147100000 ".
23-Feb-11:- $3,540 \mathrm{kHz}$, "471 47147100000 ", still around in February, weak signal with amateur CW interference.

Second + Fourth Mondays in the Month $2115+2215$ UTC Schedule:-
10-Jan-11:- 2115 UTC, $6,920 \mathrm{kHz}$, "121 12112100000 ". Weak but clear.
2215 UTC, $5,175 \mathrm{kHz}$, second sending, very weak signal. Same frequencies, +/- a few kHz,
and "call" as in January of the last three years.
24-Jan-11:- 2115 UTC, $6,920 \mathrm{kHz}$, "121 12112100000 ".
2215 UTC, $5,175 \mathrm{kHz}$, second sending, very weak.
14-Feb-11:- 2115 UTC, $6,965 \mathrm{kHz}$, "684 68468400000 ", very weak signal.
2215 UTC, $5,320 \mathrm{kHz}$, a very weak second sending, same frequencies as in February of '08, '09 and '10.

## S11a [III]

S11a January/February log:

| 4441 kHz 1355 z | 02/01 [254/00] Fair |  | RNGB | SUN |
| :---: | :---: | :---: | :---: | :---: |
| 1355z | 17/02 [254/00] Weak |  | RNGB | MON |
| 1355z | 28/01 [254/00] Fair |  | RNGB | SUN |
| 1355z | 06/02 [254/00] Weak QRM4 |  | PLondon | SUN |
| 1355z | 07/02 [254/00] Fair |  | RNGB | MON |
| 1355z | 13/02 [254/00] Weak |  | RNGB | SUN |
| $6433 \mathrm{kHz} \mathrm{1020z}$ | 01/01 [221/00] Good |  | RNGB | SAT |
| 1355z | 02/01 [244/00] Fair |  | RNGB | SUN |
| 1020z | 05/01 [221/00] Good |  | RNGB, Hans | WED |
| 1020z | 08/01 [221/00] Good |  | RNGB | SAT |
| 1020z | 12/01 [221/00] |  | RNGB | WED |
| 1020z | 22/01 [221/00] Fair |  | RNGB | SAT |
| 1020z | 26/01 [227/33 54555? 85005? 1030422117 14990.....18425] Weak, heavy |  |  |  |
|  | QRM from 'HEP' Unable to discern figure 4s from 5s |  | RNGB | WED |
| 1020z | 05/02 [221/00] Good |  | RNGB | SAT |
| 1020z | 09/02 [221/00] Strong |  | Hans | WED |
| 1020z | 12/02 [221/00] Konyets1023z Fair, DATA CW QRM3 'HEB' | (3m14s) | PLondon | SAT |
| 1020z | 16/02 [228/34 99979136406705535396 30560.....21559] Konyets 1031z |  | RNGB | WED |
| 1020z | 19/02 [228/34 V 9997913640 .... 21559] 1031z Strong digi-QRM3 |  | Hans | SAT |
| 1020z | 23/02 [221/00] KONEЦ 1023z Strong, HEB QRM4 | (3m05s) | PLondon | WED |
| 7504kHz 0915z | 04/01 [484/00] |  | RNGB | TUE |
| 0915z | 07/01 [484/00] |  | RNGB | FRI |
| 0915z | 11/01 [484/00] Strong |  | RNGB, Hans | TUE |
| 0915z | 14/01 [484/00] |  | Randy | FRI |
| 0915z | 18/01 [480/30 70419295055953496776 30669....94075] |  | RNGB | TUE |
| 0915z | 21/01 [480/30 70419] Repeat of Tuesday. Weak |  | RNGB | FRI |
| 0915z | 25/01 [484/00] Fair |  | RNGB | TUE |
| 0915z | 28/01 [484/00] Good |  | RNGB | FRI |
| 0915z | 01/02 [486/34 16995029378964203831 04610....60580] |  | RNGB | TUE |
| 0915z | 08/02 [484/00] Konyets 0918z Strong |  | RNGB, PLondon | TUE |
| 0915z | 11/02 [484/00] | (3m17s) | RNGB, PLondon | FRI |
| 0915z | 15/02 [484/00] |  | RNGB | TUE |
| 0915z | 18/02 [484/00] Strong |  | Hans, PLondon | FRI |
| 0915z | 22/02 [484/00] |  | RNGB | TUE |
| 0915z | 25/02 [484/00] KONEC 0918z Fair | (3m16s) | PLondon, Hans | F |
| 9610 kHz 1020 z | 14/01 [426/00] Good |  | RNGB | FRI |
| 1020z | 18/01 [422/30 15535200974912018613 58605.....54925] Konyets 1030z |  | RNGB | TUE |
| 1020z | 25/01 [426/00] Good |  | RNGB | TUE |
| 1020z | 28/01 [426/00] Fair |  | RNGB | FRI |
| 1020z | 01/02 [426/00] |  | RNGB | TUE |
| 1020z | 04/02 [426/00] Weak/Fair BC-QRM3 |  | Hans | FRI |
| 1020z | 08/02 [422/37 V 7100599838 .... 00692] 1031z Weak/Fair QSB3 |  | Hans | TUE |
| 1020z | 11/02 [422/37 71005998383004258495 36458.....00692] Good |  | RNGB, Hans | FRI |
| 1020z | 15/02 [426/00] Good |  | RNGB | TUE |
| 1020z | 18/02 [426/00] Good |  | RNGB | FRI |
| 1020z | 22/02 [426/00] |  | RNGB | TUE |
| 1020z | 25/02 [426/00] KONEC 1023z Weak | (3m15s) | PLondon | FRI |
| $12530 \mathrm{kHz1023z}$ | 27/01 - Fair, in progress. Last groups: 59983 11049. Konyets 1025z |  | Hans | THU |
| 1015z | 31/01 [475/00] Good |  | RNGB | MON |
| 1015z | 03/02 [475/00] Good |  | RNGB | THU |
| 1015z | 07/02 [475/00] Good |  | RNGB, Hans | MON |
| 1015z | 10/02 [475/00] Good |  | RNGB | THU |
| 1015z | 21/02 [475/00] Good (3m21s) RNGB, Hans MON |  |  |  |
| 1015z | 28/02 [475/00] |  | RNGB | MON |

## S21 [XIV]

January 2011
$3323 \mathrm{kHz} 1843 z \quad 11 / 01$ [323 923/33] OM very weak
Mndbs
THU

## February 2011

$3823 k H z 1842 z \quad 01 / 02$ [323 4233344348 ... 15100]
Gert
TUE
A little better to copy as M45. Both have same message, different ID. Odd to hear the voice of S06. [I liked the female voice a lot more]
Message details:
44348404121865682528725692295269408840529595662023
50968313811742793330849994290768408966385266355830 48927508786854809512801348243164940269512146988109 882711094415100

## V02a [XVIII]

The logs from PoSW lead us into this station:
30-Dec-10, Thursday:- 0700 UTC, $5,883 \mathrm{kHz}$, "Atencion, 747320637267452 ". Weak signal, call-up in progress when tuned in 15 seconds before the hour. 0800 UTC, $5,898 \mathrm{kHz}$, "74732 0637267452 ", as earlier. Started 30 seconds before 0800 z .

31-Dec-10, Friday:- 0700 UTC, $5,800 \mathrm{kHz}$ - was on this frequency for just a few seconds of the call-up routine before vanishing and re-appearing on the correct frequency $5,883 \mathrm{kHz}$.
"Atencion, 831423225166722 ", very weak signal on which to end the year.
0800 UTC, $5,883 \mathrm{kHz}$, again the wrong frequency, called "83142 3225166722 " as earlier,
went off approx. 0802 and 30 seconds UTC and came up on the usual frequency $5,898 \mathrm{kHz}$.

1-Jan-11, Saturday:- 0800 UTC, $5,898 \mathrm{kHz}$, first number station logging of the new year!
"Atencion, 3621138682 72502".

14-Jan-11, Friday:- 0700 UTC, 5,883 kHz, "Atencion, 6660134431 28581".
15-Jan-11, Saturday:- 0800 UTC, $5,898 \mathrm{kHz}$, "Atencion, 3000115762 84431", weak signal, difficult copy.
16-Jan-11, Sunday:- 0800 UTC, $5,898 \mathrm{kHz}$, "Atencion, 370322254284821 ". Good signal once the S9+ BC station on 5,900 cut carrier.
18-Jan-11, Tuesday:- 0800 UTC, 5,898 kHz, "Atencion, 1202115072 25352".
21-Jan-11, Friday:- 0700 UTC, 5,883 kHz, "Atencion, 1845261431 87411".
22-Jan-11, Saturday:- 0659 and 15 seconds UTC - started early! - $5,883 \mathrm{kHz}$, "Atencion, 481113551213652 ".
23-Jan-11, Sunday:- 0700 UTC, $5,883 \mathrm{kHz}$, "Atencion, 5672201072 65462", weak signal, difficult copy. 0800 UTC, $5,898 \mathrm{kHz}$, "56722 01072 65462", as earlier, much stronger signal.

25-Jan-11, Tuesday:- 0700 UTC, 5,883 kHz, "Atencion, 323414786127532 ".
27-Jan-11, Thursday:- 0700 UTC, $5,883 \mathrm{kHz}$, "Atencion, 1845153481 32211".
29-Jan-11, Saturday:- 0800 UTC, $5,898 \mathrm{kHz}$, "Atencion, 577312153230252 ". Call-up in progress when tuned in 30s before 0800 z , " 57731 " repeated and into 5Fs before 0802z

30-Jan-11, Sunday:- 0700 UTC, $5,883 \mathrm{kHz}$, "Atencion, 534825650260812 ". " 53482 " repeated and into 5Fs well before 0702 z .
0758 and 30s UTC - started well before the hour - $5,898 \mathrm{kHz}$, " 534825650260812 ", as earlier.

4-Feb-11, Friday:- 0700 UTC, $5,883 \mathrm{kHz}$, "Atencion, 778616611185131 ".
6-Feb-11, Sunday:- 0700 UTC, $5,883 \mathrm{kHz}$, "Atencion, 214613232222722 ". Started late, unusually, carrier only until approx 25 seconds past the hour. 0800 UTC - and 25 seconds, $5,898 \mathrm{kHz}$, "21461 32322 22722" again.

7-Feb-11, Monday:- 0700 UTC, $5,800 \mathrm{kHz}$ - started up on the wrong frequency - "Atencion,
5332108422 18821". And then there was a burst of local QRM from someone's heating spark ignition which obliterated V02a for about 20 seconds after which the YL from Havana had vanished and was found to have moved to the correct frequency, $5,883 \mathrm{kHz}$.

10-Feb-11, Thursday:- 0700 UTC, 5,883 kHz, "Atencion, 8551124531 22831".
11-Feb-11, Friday:- 0700 UTC, 5,883 kHz, "Atencion, 7853275232 01531".
12-Feb-11, Saturday:- 0800 UTC, 5,898 kHz, "Atencion, 3264117412 12782".
13-Feb-11, Sunday:- 0800 UTC, $5,883 \mathrm{kHz}$, the wrong frequency for 0800 z , "Atencion, 604627571163381 ". Vanished just before 0804 z and re-appeared on the correct frequency, 5,898 .

14-Feb-11, Monday:- 0700 UTC, 5,883 kHz, "Atencion, 4774282712 26402".

4035 kHz
0400 z
0400 z
0400z

24/01[71422 77721 87431] Very weak sig. IDs highly questionable 31/01[A15611 60162 36832] Weak sig.
$5883 k H z 0700 z$ 0659z
0659z
0700z
$0700 z$
0659z
0702z

0700z
0700z
0700z 14/01[A66601 3443128581 LG 92868] DanAr FRI
$0717 \mathrm{z} \quad 15 / 01$ [Tx started late without A: , $57624476460528 \ldots$ then only one msg 84431 LG 10122]
0659z 16/01[A37032 2254284821 LG 76670] Finalé(R3) 0741z Fair, QSB3, LG fm DanAr
0700z 17/01[ - -- - - 2114113042 LG37713] Fair, QRM2 i/p msg 2m55s late
0700 z 18/01[A12021 1507225352 LG 27567]
0659z 20/01[A64771 2132145751 LG14611]Fair, QRM2
0700z 21/01[A18452 6143187411 LG74622]Finalé(R3) 0741z Strong, QRM2
$0659 z \quad$ 22/01[A48111 3551213652 LG46318] Finalé(R3) 0741z Fair
0659z 23/01[A56722 0107265462 LG86384] Finalé(R3) 0741z Fair, Tx broke 0709 to 0732z [see below]

|  | dj <br> dj | MON <br> (42m02s) |
| :--- | :--- | :--- |
| (42m01s) |  | PLdn |
|  | PLdn, Hans, DanAr |  |
|  | PLdn | SAT |
|  | DanAr | MON |
| (41m29s) | PLdn, DanAr | TUE |
| (42m03s) | PLdn, DanAr | THU |
| (41m02s) | PLdn, DanAr | SUT |
|  | DanAr | MON |
|  | DanAr, Hans | TUE |
|  | Hans, DanAr | THU |
|  |  |  |
|  | DanAr, PLdn | SAT |
| (42m07s) | DanAr, PLdn | SUN |
| (38m26s) | DanAr, PLdn | MON |
|  | DanAr | TUE |
| PLdn, DanAr | THU |  |
| (41m39s) | PLdn | FRI |
| (42m02s) | Hans,DanAr | SAT |
| (41m39s) | DanAr, PLdn | SUN |



V02a 5883kHz 0659z 23/01 note break in transmission 0709 to 0732z. No complete messages sent

5883kHz 0659z
0659z
0700z
0659z
0659z
0700z
0700z
5898 kHz 0800 z
0759z
0800z
0800z
0759z
0800z
0800z
0759z
0800z
0800z
0759z
0800z
0759z 25/01[A32341 4786127532 LG00038] Finalé(R3) 0842z Strong 27/01[A18451 5348432211 LG52664] Finalé(R3) 0841z Strong 0759z 28/01[A14032 3740146471 LG22684] Finalé(R3) 0840z Strong, QSB2 29/01[A57731 2153230252 LG47818] Finalé(R3) 0841z Strong 0759z 30/01[A53482 5650260812 LG41717] Finalé(R3) 0840z Strong 0800z 31/01 [A10452 2468140172 LG 72170]

| (42m15s) | DanAr, PLdn | MON |
| :--- | :--- | :--- |
| (41m31s) | DanAr, PLdn | TUE |
| (41m11s) | PLdn, DanAr | THU |
| (41m12s) | DanAr, PLdn | FRI |
| (42m31s) | DanAr, PLdn | SAT |
|  | DanAr | SUN |
|  | DanAr | MON |
|  |  |  |
| (41m59s) | PLdn | SAT |
| (42m01s) | PLdn | SUN |
| (41m35s) | PLdn, SR | MON |
| (41m28s) | PLdn | FRI |
| (42m05s) | PLdn | SAT |
|  | PLdn | MON |
|  | PLdn | FRI |
|  | PLdn | SAT |
| $(41 m 21 s)$ | PLdn | MON |
|  | PLdn | TUE |
|  | PLdn | THU |
| $(41 m 15 s)$ | PLdn | FRI |
| $(42 m 02 s)$ | PLdn | SAT |
| $(41 m 39 s)$ | PLdn | SUN |
| $(42 m 11 s)$ | PLdn | TUE |
| $(41 m 12 s)$ | PLdn | THU |
| $(41 m 12 s)$ | PLdn | FRI |
| $(41 m 25 s)$ | PLdn | SAT |
| $(41 m 28 s)$ | PLdn | SUN |
|  | DanAr | MON |
|  |  |  |

DanAr

| dj | MON |
| :---: | :---: |
| dj | MON |
| dj | MON |
| dj | MON |
| dj | WED |
|  |  |
| dj | WED |
| dj |  |


| 12180kHz1900z | 04/01[A60231 75582 35501] LSB Good sig |
| :---: | :---: |
| 1900z | 20/01[A17262 ..... ..... ]Very weak sig. Up late IP With M08a |
| 1900z | 27/01[A73401 35731 51142] |
| $13380 \mathrm{kHz2000z}$ | 04/01[A60231 75582 35501] Good sig |
| 2000z | 06/01[A86052 7750224631 Up late IP. |
| 2000z | 11/01 IP very weak |


| dj | TUE |
| :--- | :--- |
| dj | THU |
| dj | THU |
|  |  |
| $d j$ | TUE |
| dj | THU |
| Sage | TUE |

## February 2011

| $5135 \mathrm{kHz0200z}$ | 26/02[A54242 33231 53512] |
| :---: | :---: |
| 5883 kHz 0659 z | 01/02[A84712 5115181072 LG02133]Strong, fair start. |
| 0659z | 03/02[A28651 5518128872 LG15511] |
| 0659z | 04/02[A77861 6611185131 LG48870] |
| 0700z | 05/02[A70871 1447103382 LG96538]Finalé(R3) 0743z Weak, QRM3/4 |
| 0700z | 06/02[A21461 3232222722 LG42867]Finalé(R3) 0743z Fair, QRM2at start, then strong to end |
| 0700z | 07/02[A53321 0842218821 LG25839] |
| 0700z | 08/02[A52232 0304155012 LG51707] |
| 0700z | 10/02[A85511 2453122831 LG00423] Finalé(R3) 0742z Strong M12 doubling at 0730z |
| 0700z | 11/02[A78532 75232 01531] Strong, finished early, changed to SK01 [abt 34mins] |
| 0700z | 12/02[A32641 1741212782 LG20638]Finalé(R3) 0743z Fair to strong, QSB2 |
| 0700z | 13/02[A60462 7571163381 LG14873] Finalé(R3) 0743z Strong |
| 0700z | 14/02[A47742 8271226402 LG heard 82860] ended prematurely 0734z, then SK01 0734z |
| 0700z | 15/02[A25272 1772204082 LG82010] Finalé(R3) 0742z Fair, QRM3/4 to start |
| 0700z | 17/02[A77721 7346241431 LG65805] Finalé 0743z Strong, QRM2 |
| 0700z | 18/02[A14551 2372142501 LG91533] Finalé(R3) 0743z Strong |
| 0700z | 19/02[A64252 2267164541 LG26072] Finalé(R3) 0742z Strong, slight QRM |
| 0700z | 20/02[A88762 3745178661 LG00711] Finalé 0742z Fair |
| 0700z | 21/02[A22651 0736144411 LG80160] |
| 0708z | 22/02[-------6705266512 LG08461]Finalé(R3) 0742z Poor, distorted audio , Started late. |
| 0700z | 24/02[A05122 3555148501 LG23688]Finalé(R3)0742z Fair |
| 0700z | 25/02[A05122 3555148501 LG 23688] DanAr, PLdn THU |
| 0700z | 26/02[A43172 3550100101 LG18735]Finalé(R3) 0742z QRM3/4 to start, LOS 0710z then good, fair sigs |
| 0700z | 27/02[A05822 4085286082 LG03431]Finalé 0742z Fair |


| 5898 kHzz 0759 z | 01/02[A84712 5115181072 LG02133] |  | PLdn | TUE |
| :---: | :---: | :---: | :---: | :---: |
| 0800z | 03/02[A28651 5518128872 LG52876]Finalé(R3) 0841z Strong | (41m06s) | PLdn | THU |
| 0759z | 04/02[A77861 6611185131 LG85767]Finalé(R3) 0839z Strong | (40m17s) | PLdn, DanAr | FRI |
| 0759z | 05/02[A70871 1447103382 LG96538]Finalé(R3) 0842z Strong | (42m30s) | PLdn | SAT |
| 0800z | 06/02[A21461 3232222722 LG41758]Finalé(R3) 0843z Strong | (42m01s) | PLdn | SUN |
| 0800z | 07/02[A53321 0842218821 LG25839]Finalé(R3) 0842z Strong | (41m59s) | PLdn | MON |
| 0800z | 08/02[A52232 0304155012 LG58nn5] Local QRM3/4 |  | PLdn | TUE |
| 0800z | 11/02[A78532 7523201531 ] M08a tostart DGDIN NDNGA NGINN. Finish early 34m22s, SK01 |  | PLdn | FRI |
| 0800z | 12/02[A32641 1741212782 LG20638]Finalé(R3) 0843z Strong, QRM2 | (42m03s) | DanAr,PLdn, Hans | SAT |
| 0800z | 13/02[n nnnnn 7571163381 LG34578] Finalé(R3) 0843z Strong No msg txt until 0805z, Mx/no c | rier previo |  |  |
|  |  | (42m01s) | PLdn | SUN |
| 0800z | 14/02[A47742 8271226402 LG heard 86015] ended prematurely $0736 z$ then SK01 0736z |  | PLdn | MON |
| 0800z | 15/02[A25272 1772204082 LG51158] Finalé(R3) 0842z Strong, QRM2 | (42m02s) | PLdn | TUE |
| 0800z | 17/02[A77721 7346241431 LG06014] Finalé 0843z Strong | (41m57s) | PLdn | THU |
| 0800z | 18/02[A14551 2372142501 LG91533] Finalé(R3) 0843z Strong | (42m01s) | DanAr,PLdn | FRI |
| 0800z | 19/02[A64252 2267164541 LG32020] Finalé(R3) 0842z Strong, QRM2 at end. | (42m01s) | PLdn, Hans | SAT |
| 0800z | 20/02[A88762 3745178661 LG nnnnn]Fair to start, end grps lost in noise, poor condx |  | PLdn | SUN |
| 0814z | 21/02[A22651 0736144411 LG45340] Finalé(R3) 0843z First 14m grps not sent |  | DanAr,PLdn | MON |
| 0800z | 22/02[A14871 6705266512 LG58600] Finalé(R3) 0842z Poor, distorted audio | (42m07s) | PLdn | TUE |
| 0800z | 24/02[A05122 3555148501 LG23688]Finalé(R3)0842z Fair, QRM2 | (42m02s) | PLdn | THU |
| 0800z | 25/02[A31412 57431 33712] Strong |  | Hans, PLdn | FRI |
| 0800z | 26/02[A43172 3550100101 LG52571]Finalé(R3) 0842z Strong | (42m03s) | PLdn | SAT |
| 0800z | 27/02[A05822 4085286082 LG17514]Finalé 0842z Strong | (42m06s) | PLdn | SUN |
| 0800z | 28/02[A46331 4775246402 LG86143] Finalé(R3) 0843z Weak | (42m47s) | PLdn | MON |
| 6855 kHz 0300 z | 14/02[A35232 44532 33181] Weak sig. |  | dj | MON |
| 9040 kHz 0900 z | 02/02[73121 48412 80661] |  | dj | WED |
| 0900z | 09/02[A67481 1200136451 Good sig |  | dj | THU |
| $9240 \mathrm{kHz} \mathrm{1000z}$ | 02/02[73121 48412 80661] |  | dj | WED |
| 1000z | 09/02[A67481 1200136451 VG sig. |  | dj | THU |
| 1000z | 16/02[A66394 30062 23321] Good sig |  | dj | WED |
| 12180kHz1900z | 01/02[A56322 28532 74651] Weak sig |  | dj | TUE |
| 1900z | 22/02[A55741 54082 70301]Weak sig |  | dj | TUE | Readability was bad for both. [M08a 12180kHz1900z22/02 5f cut nums: 72282 ..... .. 812 Very weak sig] dj

Freq list vs month from AnonUK:

| January | 060010879 | 062012179 | 064013479814 |
| :--- | :--- | :--- | :--- |
| February | 060013366 | 062014866 | 064016266382 |
| March | 060014387 | 062016087 | 064017487304 |
| April | 060014387 | 062016087 | 064017487304 |
| May | 060014621 | 062016321 | 064017521635 |
| June | 060014621 | 062016321 | 064017521635 |
| July | 060013837 | 062014937 | 064016697896 |
| August | 060013837 | 062014937 | 064016697896 |
| Sept | 060013381 | 062014781 | 064016281372 |
| October | 060014521 | 062015821 | 064017421584 |
| November 0600 12152 | 062013552 | 064014952159 |  |
| December 06009272 | 062010672 | 064012172261 |  |
| [Tnx AnonUK] |  |  |  |

## V13 [0] <br> For more info check my website at kentfoto -dot- com -slash- spooks.

## V21 [Babbler]

## V24 [IA]

January 2011 changes for V24 and M94 [Token]
It has been a while since I have reported anything at all, radio has taken a serious back seat in recent months. However, I have encountered some new habits/activity with V24/M94.

Last year around the first of the year V24 and M94 went through a couple of changes, they dropped all activity on the lower four frequencies, 4500 , 4600 , 4900 and 5115 kHz , moving most of these into empty time slots on the remaining four frequencies, $5715,6215,6330$, and 6730 kHz .
They also greatly reduced M94 transmissions, to just a few slots for each month, I commented at the time that it looked like M94 might be on the way out. Well,
this January 1st marked another change.
Starting January 1 of this year V24 appears to have reactivated at least 4600 and 4900 kHz . The 4500 kHz frequency has a 24 hour a day digital mode on it, that signal has always been there and made reception for me of the V24 transmissions on 4500 problematic, although I did hear a few. The 5115 kHz frequency is clear for me, but I have not heard anything on it this year, and it was an M94 only frequency when it was used.

So far I have seen no M94 activity on these newly reactivated frequencies. All of the transmissions I have caught this year on the new frequencies are V24 only. In fact, since the 1st of the year I have received no M94 transmissions at all and there should have been two different M94 messages in the last week and a half. On the 1st and 2nd of the month at 1300 UTC on 5715 M94 should have gone with ID 1017, and today (the 10th) M94 should have gone at 1400 UTC on 6330 with ID 935, none of them were received at my location. Today's M94 was replaced by a V24 in the same time slot, but on 6730 kHz .

It is naturally too early to tell, but it may be that M94 has been discontinued.

At this time I am hearing regular V24 messages on 4600, 4900, 5715, 6215, 6330 and 6730 kHz . I have been recording the entire spectrum from 4500 to 6900 kHz
but have not seen any new frequencies in use, just reactivation of old frequencies. The schedule is about $50 \%$ in line with what it was at the end of last year.

Earlier this month (Jan 10, 2011) I reported V24 and M94 had made some major changes to transmission schedules and frequencies used. I reported they had reactivated some older frequencies and possibly had reduced M94 to little or no traffic.

Since that time I have been watching V24/M94 closely, trying to understand exactly what changes have taken place. I have been watching all frequencies that I am aware of that have ever been used by V24/M94 in the past, so daily from 1200 to 1700 UTC the frequencies on the watch list include 4500 , 4600 , 4900 , 4940, 5115, 5450, 5550, 5715, 5850, 6215, 6330, 6715, and 6730 kHz .

V24/M94 has indeed re-activated at least three frequencies it has not used since December of 2009.
I started to monitor V24/M94 in March, 2009. At that time an MCW station was known to be associated with V24, but had not yet been given the Enigma designator of M94. Most reports of V24 were on 5715 and 6215 kHz and most were being made from Japan although V24 was known to have operated on other frequencies in the past.

2009 activities:
In 2009 V24 and/or M94 was using 4500, 4600, 4900, 5115, 5715, 6215 and 6730 kHz . M94 was not designated as such until June of 2010, prior to that it was generally noted as Unknown MCW and I have included those as "M94" for this discussion. Some frequencies (4500, 5115, and 5715 kHz ) were used by both V24 and M94, other frequencies (4600, 4900, 6215, and 6730 kHz ) were used by only V24, no M94 traffic was ever noted on those four. M94 carried less traffic (as determined by percentage of transmission windows) than V24, but was still very active, with over 40 transmissions in an average month.

2010 activities:
In January 2010 operations on $4500,4600,4900$, and 5115 kHz ceased and most of that traffic moved into empty time slots in the upper frequencies, 5715 , 6215 , and 6730 kHz , so that the total traffic remained about the same. M94 activitygreatly reduced overall, to less than one third of what it had been. In February 2010 a new frequency was noted, 6330 kHz , it is unknown if this was indeed a new frequency or if it had been in use all along and only noticed at this time. For the first couple of months of 2010 transmission schedules fluctuated somewhat, but eventually became very stable for the remainder of the year. For the entirety of 2010 V24/M94 used four frequencies, $5715,6215,6330$, and 6730 kHz . V24 used all four frequencies, M94 used only 5715 and 6330 kHz .

2011 Activities:
In January 2011 the transmission schedules again changed, with only about $50 \%$ of the 2010 schedule still applying. All M94 scheduled transmissions for the first 10 days of 2011 did not happen, this led me to pose the question of if M94 might have ceased operations. As luck would have it the day after I posted that update and question M94 resumed normal operational tempo.

At this time V24/M94 appears to have reactivated the frequencies in use in 2009 plus 6330 that was
not found until early 2010. I have recorded transmissions on $4600,4900,5115,5715,6215,6330$, and 6730 kHz . It is possible that 4500 kHz is also active, but due to a locally strong digital signal and the fact that China has moved a BC station onto 4500 I have not been able to confirm or eliminate 4500 kHz as a currently valid V24/M94 frequency. M94 seems to have the same schedule as in 2010, about a total of 12 transmissions a month on the same frequencies and using the same ID's as last year. At this time it looks like V24 is active on all 7 frequencies ( $4600,4900,5115,5715,6215,6330$, and 6730 kHz ), and M94 on the same two as last year ( 5715 and 6330 kHz ).

So far this year there have been no 1620 UTC transmissions as there was in the past, however the number of 1630 UTC time slots is increased. The overall time window still appears to be 1200 to 1630 UTC daily, but now strictly on the XX00 and XX30 times. Since there was a note in 2002 that the station might also include a 1700 UTC transmission I have been watching for that time slot, but have not caught a transmission there. Other time slots have been occasionally reported (generally all before 2005), from 0300 to 2100 UTC, and as a result I have monitored the most commonly used frequencies 24 hours a day, so far with nothing outside the 1200 to 1630 time frame.

The transmission schedule for the last month has been slightly chaotic, as it was for the first month or so of last year. At times it appears that the "two day" transmission format is not used, and a given transmission will only be a single day or worse yet transmit one day, skip a day, and duplicate the transmission the third day. I am working on a new printed schedule, but it will probably not be ready until about the first of March, and not confirmed until after the end of March.

## V26

9153 kHz 0955 z

1000 z | 22/01/11 YL with Msg, weak signal. |
| :--- |
| 31/01 USB Ch Mandarin 3-fig groups. Caught late, missed preambles. Very weak. Poor readability. |

## XM

$5147 \mathrm{kHz} 1730 \mathrm{z} 30 / 11$ Sounded like slow speech in tones, moving upward in freq. wider bandwidth than usual, not measured yet but up to 3000 Hz GN

Also heard in December on 7849 kHz by Hans.

## POLYTONES

## XPA unid

[found by Hans]
9138kHz 0820z 09/01[
067390000100000 10140] 0822z Weak, QRM3
(2m26s) Hans
SUN
All days searched for other sending - not found, as yet
9138kHz 0820z 16/01[845 000067390000100000 10140] 0822z Weak, QRM3
(2m26s) Hans,PLdn
Other times searched for rest of schedule -0840 z on Sunday $23 / 01$ as 8038 kHz by Hans.

| 8038 kHz | 0840 z | $23 / 01[845100469001034052131677]$ |
| :--- | :--- | :--- |
|  | 0840 z | $30 / 01[84500006740000010000010140]$ |
|  |  |  |
| 9138 kHz | 0820 z | $23 / 01[845100469001034052131677]$ |
|  | 0820 z | $30 / 01[84500006740000010000010140]$ |


| $(3 m 28 s)$ | Hans | SUN |
| :--- | :--- | :--- |
| $(2 m 26 s)$ | Hans, PLdn | SUN |
|  |  |  |
| $(3 m 28 s)$ | Hans | SUN |
| $(2 m 26 s)$ | Hans, PLdn | SUN |

The above freqs are the other sending of XPA d at 1400 z Tuesday See Polytone chart at end of Chart Section

## XPA2 TUE/THU

H-FD wrote in En62 that since October he'd intercepted a new XPA2 schedule. This is the first regular XPA2 schedule we are aware of:

## $\underline{2010}$

| October | Thu $1930 / 1950 / 2010 \mathrm{z}$ | $5892 / 5092 / 4992 \mathrm{kHz}$ |
| :--- | :--- | :--- |
| November | Thu $2030 / 2050 / 2110 \mathrm{z}$ | $5336 / 4636 \mathrm{kHz}$ |
| December | Thu $2030 / 2050 / 2110 \mathrm{z}$ | $4440 / 4640 / 5240 \mathrm{kHz}$ (Note the changing frequency direction) |

January Tue/Thu 2030/2050/2110z 4469/4617/5417kHz

$$
\text { SN / gc /dc } / \lg
$$

4469 kHz 2030z 4617 kHz 2030z 5417 kHz 2030 z

4469 kHz 2030 z 4617 kHz 2050z 5417 kHz 2110 z

4469 kHz 2030 z
4617 kHz 2050 z
$5417 \mathrm{kHz} 2110 z$

4469 kHz 2030z 4617 kHz 2050 z $5417 \mathrm{kHz} 2110 z$

04/01[02857 0000100000 10140]Very strong 04/01[02857 0000100000 10140]Very strong 04/01[02857 0000100000 10140]Very strong

06/01/MISSED
06/01[02857 0000100000 10140] Very strong 06/01[02857 0000100000 10140] Very strong

11/01[02857 0000100000 10140] Very strong 11/01[02857 0000100000 10140] Very strong 11/01[02857 0000100000 10140] Very strong

13/01[02857 0000100000 10140] Very strong 13/01[02857 0000100000 10140] Very strong 13/01[02857 0000100000 10140] Very strong

| (2m13s) | PLdn | TUE |
| :--- | :--- | :--- |
| (2m13s) | PLdn | TUE |
| (2m13s) | PLdn | TUE |
|  |  |  |
|  | PLdn | THU |
| (2m12s) | PLdn | THU |
| $(2 m 12 s)$ | PLdn | THU |
| $(2 m 12 s)$ | PLdn | TUE |
| $(2 m 12 s)$ | PLdn | TUE |
| $(2 m 12 s)$ | PLdn | TUE |
|  |  |  |
| $(2 m 12 s)$ | PLdn | THU |
| $(2 m 12 s)$ | PLdn | THU |
| $(2 m 12 s)$ | PLdn | THU |



XPA2 5417 kHz 2110 z 18/01, very strong and 10 m 16 s long [Using lower seconds scale $672.8772-56.56 .5326=616.3446 / 60$ giving 10m16.3446s]

4469 kHz 2030z
4617 kHz 2050 z $5417 \mathrm{kHz} 2110 z$

4469kHz 2030z 4617 kHz 2050z 5417 kHz 2110 z

4469 kHz 2030z 4617 kHz 2050 z 5417 kHz 2110 z

4469 kHz 2030z 4617 kHz 2050 z 5417 kHz 2110 z

18/01[00676 0063336710 35363] Very strong 18/01[00676 0063336710 35363] Very strong 18/01[00676 006333671035363 ] Very strong

20/01[00676 0063336710 35363]Very strong 20/01[00676 0063336710 35363]Very strong 20/01[00676 0063336710 35363]Strong, QRM2

25/01[02858 0000100000 10140] Very strong 25/01[02858 0000100000 10140] Very strong 25/01[02858 0000100000 10140] Very strong

27/01[00676 0063336710 35363] Very strong 27/01[00676 0063336710 35363] Very strong 27/01[00676 006333671035363$]$ Very strong

Rpt of 18/01 Rpt of $18 / 01$ Rpt of 18/01
(10m16s) PLd
(10m16s) PLdn
(10m16s) RNGB, PLdn
(10m16s) PLdn
(10m16s) PLdn
(2m12s) PLd
(2m12s) PLdn TUE
(2m12s) PLdn TUE
(10m16s) PLdn THU
(10m16s) PLdn THU
(10m16s) PLdn THU

TUE
TUE
TUE
THU
THU
THU

## TUE

TUE
UE

THU

February 2011

5336 kHz 2030 z 4636 kHz 2050z 4536 kHz 2110 z

01/02[00325 0024517605 36214]Very strong 01/02[00325 0024517605 36214]Very strong 01/02[00325 0024517605 36214]Very strong

| $(5 \mathrm{~m} 18 \mathrm{~s})$ | BR,RNGB | TUE |
| :--- | :--- | :--- |
| $(5 \mathrm{~m} 18 \mathrm{~s})$ | BR,RNGB | TUE |
| $(5 \mathrm{~m} 18 \mathrm{~s})$ | BR,RNGB | TUE |



Compares XPA2 2110z 03/02 with strong commercial signals in spectrum nearby

| 5336 kHz 2030z | 03/02[04368 0027784651 26475] Very strong |  | (5m45s) | PLdn | THU |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4636 kHz 2050z | 03/02[04368 0027784651 26475] Very strong |  | (5m45s) | PLdn | THU |
| 4536 kHz 2110z | 03/02[04368 0027784651 26475] Very strong | See image above | (5m45s) | PLdn | THU |
| 5336 kHz 2030z | 08/02[00740 0028174515 31430] Very strong |  | (5m45s) | PLdn | TUE |
| 4636 kHz 2050z | 08/02[00740 0028174515 31430] Very strong |  | (5m45s) | PLdn | TUE |
| 4536kHz 2110z | 08/02[00740 0028174515 31430] Very strong |  | (5m45s) | PLdn | TUE |
| 5336 kHz 2030z | 10/02[00740 0028174515 31430] Strong |  | (5m47s) | PLdn | THU |
| 4636 kHz 2050z | 10/02[00740 0028174515 31430] Strong |  | (5m47s) | PLdn | THU |
| 4536 kHz 2110z | 10/02[00740 0028174515 31430] Strong |  | (5m47s) | PLdn | THU |
| 5336 kHz 2030z | 15/02[00609 0027191711 02375] Very strong |  | (5m37s) | PLdn | TUE |
| 4636kHz 2050z | 15/02[00609 0027191711 02375] Very strong |  | (5m37s) | PLdn | TUE |
| 4536 kHz 2110 z | 15/02[00609 0027191711 02375] Very strong |  | (5m37s) | PLdn | TUE |
| 5336 kHz 2030z | 17/02[00609 0027191711 02375] Very strong |  | (5m37s) | PLdn | TUE |
| 4636kHz 2050z | 17/02[00609 0027191711 02375] Very strong |  | (5m37s) | PLdn | TUE |
| 4536 kHz 2110z | 17/02[00609 0027191711 02375] Very strong |  | (5m37s) | PLdn | TUE |
| 5336 kHz 2030z | 22/02[00708 0019180423 03310] Very strong |  | (4m38s) | PLdn | TUE |
| 4636kHz 2050z | 22/02[00708 0019180423 03310] Very strong |  | (4m38s) | PLdn | TUE |
| 4536 kHzz 2110 z | 22/02[00708 0019180423 03310] Very strong |  | (4m38s) | PLdn | TUE |
| 5336 kHz 2030z | 24/02[00708 0019180423 03310] Very strong |  | (4m38s) | PLdn | TUE |
| 4636kHz 2050z | 24/02[00708 0019180423 03310] Very strong |  | (4m38s) | PLdn | TUE |
| 4536 kHz 2110z | 24/02[00708 0019180423 03310] Very strong |  | (4m38s) | PLdn | TUE |
| $\underline{\text { XPA2 TUE }}$ |  |  |  |  |  |
| 14538 kHzz 1520 z | 22/02[00204 0002866286 64206] Strong |  | (2m32s) | Hans | TUE |
| 13538 kHz 1540 z | 22/02[00204 0002866286 64206] Strong |  | (2m32s) | Hans | TUE |

## Due to a cock up during PDF conversion last time we print this again:

## An interesting email exchange:

From a long term member who must on this occasion remain 'MaleAnon':
I don't know if you still have the contacts or not, but if you can get to view the Crime museum at NSY, was called the Black museum before you will see something interesting!

Do you remember the Czech agent caught in London in 1988 receiving numbers station Morse messages - Erwin van Haarlem?
Well I was in a position to be invited to view the museum a few months ago and in the top left corner, as you enter the room, is a display of some artifacts from the case. The really interesting one is what I took to be the court exhibit of the 'numbers' message he received, together with an explanation of what the different numbers mean i.e. Agents ID, one time pad page number etc. I don't know who did the explanation, but I would guess maybe GCHQ.

Anyhow if you can get to visit you will see what I saw......

And the reply:
Walk through the door, turning left, note cases on right; severed hands facing along with Victorian sexual aids on facing wall.

Look left, you see a cabinet sparsely furnished featuring some equipment and hollowed out batteries, a short note showing seven $5 f$ grps and a short explanation of the code groups, plus the fact it was received in serial mode by Professor Hugh Hambledon.

Turn left and there's interesting examples of IRA technology.
The spy case you referred to has no exhibits in Room101[Black Museum]; Haarlem simply used a Roberts Radio to simply receive his Morse off air in his kitchen. He was arrested, refused to give his pars and only on his return to Czechoslovakia was it discovered he was a Colonel VáclavJelínek in the Czech intel service StB.

Hambledon however was a self-serving Canadian who was arrested here on a request from the RCMP and who served part of his 10 year sentence before being 'repatriated' to serve the remainder of his tariff in Canada. As far as GB was concerned he was a minor spy which is probably why the display is available in Room 101, aka The Black Museum.

Professor Hambledon's Luminaire [credit KW]


Did you get on the 5th floor for the nosh and a quick survey of the pics of all the past Chief Constables?

For the benefit of the readers; the severed hands were that of a criminal whose details were wanted in the United Kingdom after he had decamped to Germany. After his being discovered dead in Germany British Police made a request for his fingerprints.
German humour being what it was they didn't 'dead wipe' the deceased finger prints, instead severing both arms below the elbows and sending via a courier for the dabs to be done here. How do I know? Well, you'll never know, will you?

## Items of Interest in the Media:-

From the Russia Today TV channel in the first days of the New Year came news of another Soviet era nuclear bunker open to the public, well worth a visit if you happen to be in Moscow, no doubt. Described as a "living history experience for tourists", the door of the bunker was designed to stop the shock wave of a nuclear strike and was said to weigh about 1.5 tonnes. The bunker itself has walls of re-enforced concrete with a thickness of six metres. If you had been lucky enough to escape the initial explosion, inside are enough food and air to last about two weeks. The reporter stated that it was not just purpose-built bunkers that were designed to protect in case of a nuclear attack, one of Moscow's iconic landmarks is also there to protect. "The biggest shelter in the world", said the Russian guide "is the Moscow Metro system.
Each station is constructed as a bunker to save the lives of people inside at the time of a nuclear strike." The reporter said that the museum prides itself in being very "hands on" encouraging visitors to reach out and touch the past, unlike an ordinary museum everything can be touched and visitors can handle a variety of equipment used when the bunker was operational. The complex extends kilometres underground creating a rabbit warren below the streets. To the sound of air raid sirens the reporter said visitors get a chance to experience what it would have been like if Moscow had ever been hit by a nuclear attack.

Chinese takeaway - of a different kind! From the Metro newspaper of 26 -January comes a reminder that the rise and rise of China does not only mean unbelievably cheap consumer goods from Chinese sweat-shop factories exported to the West. "Stealth engineer jailed for spying", is the headline over a short news item and says, "America: a former B-2 stealth bomber engineer was sentenced to 32 years in jail yesterday for selling military secrets to China. It is the latest high-profile case of Chinese espionage in the US. Indian-born Noshir Gowinda, 66, will be in his late 80 's by the time he is released - even with good behaviour. 'He broke his oath of loyalty to this country,' said judge Susan Mollway in Hawaii. He helped China design a stealth cruise missile to get money to pay the $£ 9,500$ a month mortgage on his luxurious home on Maui".

Somalian pirates to see some very bright lights:- well, perhaps, according to the Metro of 13-January. "Anti-pirate laser planned", is the headline over a news item in the "Tech- Talk column. "Long-range lasers could be the latest weapon in the fight against Somali pirates. The non-lethal lasers would blind the pirates temporarily, allowing ships in danger to plot an escape. The BAE systems technology would be operated from the coastline and would leave pirates feeling as if they've looked into the sun for a prolonged amount of time. The intensity of the beam would be regulated to avoid lasting damage."

And it looks as though Tommy Atkins is getting some new gadgetry, according to an article in the Mail on Sunday of 2-January. "The 4 inch gadget that pinpoints Taliban snipers", is the headline over a piece by Christopher Leake, Defence Editor and says, "British soldiers are to test a revolutionary new device which can pinpoint the exact position of enemy snipers 1,000 yards away.
The tiny computerised 'sniper spotter', which has been developed by Army scientists at the top secret Defence Science and Technology Laboratory in Wiltshire, identifies the shooter's location in an instant, enabling British troops to fire back immediately and accurately.
The new high-tech gadget - just 4in square and weighing 11 oz - is worn on a soldier's arm. It is connected to a shoulder sensor which pinpoints the location.
The device will be trialled this month with the Parachute Regiment in Afghanistan.
The detector's powerful acoustic processing technology evaluates the enemy position by determining the target's co-ordinates on a small screen with an arrow indicator. Simultaneously it bleeps a warning into a headset connected to the device.
The Boomerang Warrior - X processor is the most advanced detector on the market. It has been refined by the scientists from a US system used in Iraq. The small square-shaped detector will also allow Joint Tactical Air Controllers to forward exact locations of the enemy to fighter pilots for an air strike. Sources say each unit - officially known as the Compact Soldier Worn Shooter-Detector System - costs $£ 10,000$. An initial 1,000 have been ordered for British troops in Afghanistan's southern Helmand province. If trials are successful, more soldiers will be issued with it later this year.
The way the technology works is a closely guarded secret, but the unique software provides constant updates on the enemy's location - even if they move position while being fired at.
A senior source said: 'This bit of kit could be a life-saver. An earlier, larger model was used by US forces in Afghanistan, but this is a first for us and it is being seen as revolutionary. It works on acoustics and when a round is fired the small display panel highlights an arrow indicating the direction of fire, which is a major help in returning fast and accurate fire.' "

Make the buggers pay:- the particular buggers in this instance being the leadership of New Labour with regard to the identity card scheme which they were hell bent on introducing, the scrapping of which was one of the first acts of the Conservative / Liberal Democrat coalition government, although the Conservatives themselves had been in favour of it and had supported New Labour as the legislation made its way through the various stages in Parliament until the last minute when they changed their mind, possibly under influence from the Liberal Democrats who were the only major party to be consistently opposed to it. Indeed, compulsory ID cards were proposed as long ago as 1994 by the then Conservative Home Secretary Michael Howard, something of a surprise that the Conservatives, always noted for support for the freedom of the individual would have proposed such a measure. The authoritarian streak which runs through the Labour party, however, meant it was no great surprise that they were in favour and they positively revelled in telling us how eventually we would all be to be required to carry our ID cards at all times, that we would be refused National Health treatment without producing our ID card, even if we had been paying our taxes for half a century and we would be required to show our ID cards on demand from just about any local government employee with a yellow fluorescent jacket or a peaked cap. Oh yes, and there was the small matter of a fine of up to $£ 1,000$ for not complying with any part of the ID card law. Now that the scheme has been abandoned, the government is to pay compensation to private companies which had been awarded contracts to run the scheme. The "i", a relative newcomer to the newspaper market and a condensed version of the Independent, of 16 -February carried a story by Wesley Johnson headlined, "ID cards to cost $£ 2.25$ million", and said, "More than $£ 2.25$ million will be paid to compensate private firms after the Government abandoned the ID card scheme. Up to $£ 400,000$ will have to be spent on decommissioning the systems and destroying personal data........Of the total $£ 2,253,000$ to be paid in compensation, more than $£ 2$ million will go to information system firm Thales, $£ 183,000$ to technology firm 3 M and $£ 68,000$ to Cable \& Wireless, the figures showed. Thousands of people issued with the $£ 30$ cards will receive no compensation."
I heard this story being discussed on several late - night radio phone-in shows, and the general view of the callers was that it should not have been the government, or to be more exact the British taxpayer, paying compensation but the individuals of the leadership of New Labour, and in particular that nasty, authoritarian Neo-Marxist David Blunkett,who as Home Secretary was the driving force behind the scheme. These people are wealthy despite their supposed socialist leanings, and several of them, including the ghastly Blunkett were reported as having lined up well paid jobs in management with companies involved with the ID card project. I don't know if Labour have a party song; at one time they used to end their annual conferences with a version of "The Red Flag", but I think they dropped that many years ago. Perhaps these days a more appropriate number would be that old John Lennon song, the one with a line that says:-
" A working class hero is something to be
" But I tell you, you're all $f^{* * * * * g ~ p e a s a n t s ~ t o ~ m e " ~}$
Latest news from the Department of Not Enough to Worry about, part of the National Guesswork Authority:- this item, which appeared in the Metro of 22-February might be of interest to short wave radio enthusiasts and could have us all stocking up on aluminium foil to wrap the radio gear in and making arrangements to ground the antenna at several points along it's length. " $£ 1$ trillion bill for solar storm 'blackout' ", says the headline over a story by Hayden Smith and says, "A perfect solar storm could cause more than $£ 1.2$ trillion of damage to Earth's communication systems, the government's chief scientific adviser is warning.
A ten-year lull in the Sun's activity has coincided with the growth of vulnerable satellite -based technologies such as the internet and GPS, said Professor John Beddington.
The Sun is due to become more turbulent as it approaches the next 'solar maximum' peak in 2013. Damage to commerce could push the total financial impact pass $\$ 2$ trillion ( $£ 1.23$ trillion).

There is only one satellite in space with the job of detecting solar storms and it is 14 years old.
Sir John told the annual meeting of the American Association for the Advancement of Science in Washington DC: 'We've had a relatively quiet period of space weather. We can't expect that quiet period to continue. At the same time, the potential vulnerability of our systems has increased dramatically whether it is the smart grid in our electricity systems or the ubiquitous use of GPS in just about everything we use these days.
'We need to be thinking about our ability to categorise and explain, and give early warning when particular types of space weather are likely.'
Experts told the meeting that last week's widely reported solar flare, the strongest in four years, could be a foretaste of serious things to come. Despite it being a weak event, it resulted in airlines re-routing flights away from polar regions and disrupted communications in parts of the western Pacific and Asia.
The most powerful solar storm on record, in 1859, sent induced currents surging through telegraph wires that set buildings on fire."
Fact meets fiction:- among the presents left by Santa Clause this Christmas was a copy of the latest best-seller from Frederick Forsyth, "The Cobra", in which the American President tasks a senior CIA man, "The Cobra" of the title to put an end to the trade in cocaine once and for all. This involves the interception of ships and aircraft carrying the stuff from South America to the US and Europe by various means in the course of which a significant part is played by a British jet aircraft, a Blackburn Buccaneer. I thought that if "The Cobra" was ever made into a film then portraying this might be something of a challenge, but I suppose it could be done by means of computer generated image technology. If Hollywood can make realistic looking dinosaurs lumber across the Silver Screen then a Blackburn Buccaneer ought to present no problems!
Meanwhile in the real world, the cocaine trade was in the news back in early January with the ending of the trial and sentencing of those convicted of importing and distributing cocaine in the UK. One of those convicted was a former London fire-fighter who had previously been praised for his conduct following the July bombings. He claimed that he had turned to drugs following the trauma he had suffered at this event - which might be understandable - and had then gone into business as a dealer - which might indicate a certain lack of moral fibre. The main man in all this was a former asylum seeker from Iraq who had built up a multi-million pound property empire from the proceeds. I think he got thirty years, but in reality sentences are automatically cut in half unless the judge directs otherwise and I did not hear of any order to seize the assets of those involved which the courts have the power to do. Neither did I hear any order from the judge for the deportation of those of foreign origin to their own countries once their prison terms had been served. This would be impossible anyway under Britain's crazy "human rights" laws. Perhaps the Iraqi gentleman will be recruited as a "business and enterprise consultant" once he gets out of jail!
Thanks Peter.....

## Other items:

## Gizza Job

## Form an orderly queue please!

This is an added bonus for the New Year; with the supply of unemployed bankers drying up and the massive bonus payments to those still selling other peoples' money a vacancy has appeared.

One has to ask oneself if a banker has moved on, has someone retired, or is there an actual new vacancy.

Don't forget, maximum discretion and keep it buttoned!
(Negative in colour btw)
This ad appeared in the 'Evening Standard,', a repeat was seen in the 'Metro, twice.'

Then, on 11/02 the same advert appears in the Metro yet again but within the 'London Sales \& Lettings' pages.
So, apart from your 2:1 [and associated student loan cost - and the SLC, based in Glasgow, where students pay nowt and doubtless part funded by English student hardship, never gets their hooks out of those with a loan to pay] you now have to be buying a house - on $£ 24 \mathrm{k} 75$ ? You’ll never do it.

BTW, the message in this later ad seems to be 'Focused.' Not if you think you're going to get a mortgage on that lot - unless, of course, you have private means.
Andeliagence Officers informotion. Spotting connections. Moking docisions that realy molter, This is what M15's intelligence Oficars do avery doy Working together, we help safeguard the security of the nation. Chotonging and vilatly limportant imestigative woik demands strong communication, analytical and organisational akills - not to mention a good deal of potience and ottention to detal. If you enioy solving. problems, becoming an Intelligence Olficer is one of the most rewording and inleresting career paths you could choose. Make sense of it of www-mis.gov.uk/careers/intelligence
To apply you mus be over 18 and a Bintuh aikzen Discretion is vild! Mou should nor discues yoir mpricorion afier than wifh your parimer or a clowe fonify member
your pormer or a clowe fonify member

Apart from the appearances stated above in mainstream newspapers this was discovered in a university student newspaper.

You can bet this is not the only Uni sheet that has carried the advert, especially as a half page .

Again, to be 'analytical' in the negatve.

## My new iob is a blast, but I can't really tell you about it <br> Sean O'Neill <br> The Times 21stJanuary2011

Jo is excited about her first proper job since leaving university. The work is fulfilling, challenging, varied and often exciting. And the office is a fun place: the hours are flexible, the people are much younger and less stuffy than she had imagined, there many office romances (and therefore gossip) and a good crowd to go to the pub with pretty much any night of the week.

On top of that there is a cheap inhouse gym and squash courts and a range of societies as well as language classes. But if you were to meet Jo, 23, you might find her rather dull and a bit unforthcoming, especially if you tried to ask her what she did for a living. Jo is not her real name. She is from "somewhere in London" and went to university "somewhere in Britain".

The reason for all this secrecy is because Jo is a spy or, technically speaking, an intelligence officer on the International Counter Terrorism team at MI5. "I don't really lie to my friends about what I do," she says. "I just say that I write reports and people find that quite boring. It's in my interest to make it sound boring because then people ask fewer questions." Recruitment to MI5 used to be done by a tap on the shoulder and a fireside chat with an Oxbridge don or at a Pall Mall club. But since 1997 the Security Service, which has just begun its latest recruitment campaign, has been advertising openly and has been inundated with a wide variety of applicants.

Despite the austere times, MI5 believes that it needs to shed older staff and recruit youth so that the organisation can better understand the mindset of the mainly young would-be terrorists it is tracking. Jo joined straight from university, where she graduated in geography, and fellow recruits Rob and Melissa have had jobs in IT and PR. Monday to Friday these three join the hundreds of people, indistinguishable from the usual throng of London office workers bustling into Thames House every morning. The building, a forbidding Whitehall fortress, has no nameplate to indicate which branch of the Civil Service is housed within. Staff gain access via a series of keypads and security pods with whooshing Star Trek-like doors. Visitors have to produce a passport and progress through searches, scanners and a sealed chamber There is a lot of thick, bomb-proof glass in the foyer

Once inside the first thing you notice is a large digital clock counting down in bright red numbers the days, hours and minutes until the start of the 2012 Olympic Games - Britain's biggest security challenge. Beyond that you could, at a glance, be in almost any office in Britain. The hard-wearing carpets stretch along endless corridors. It feels more Wernham Hogg than Spooks. And by unanimous agreement among the three new recruits, the salaries - $£ 24,750$ for a new intelligence officer - are pretty humdrum by London standards.

Rob, 29, who used to work for a small specialist IT firm, took a hefty pay cut to join MI5. "I suspect most people here could earn more in the City and the pay freeze is not coming at the best time, especially not when you've just joined," he says. "I'm a lot happier than I was in my previous job, but long term it is a bit of a concern."

Melissa, 27, agrees but has no regrets about quitting PR and joining MI5, although it took nearly a year of vetting and interviews. "The vetting was quite a strange process, a threehour conversation with someone who went through every aspect of my life. The vetting people then spoke to some of my friends, then there was a formal interview and, I presume, more checks before I got the job." That job, in essence, is snooping on suspected Islamist terrorists. But none of the three sees him or herself as a conventional spy. "I don't really want to be a typical spy, hiding or pretending to be a florist," Jo says. "I like being the person who assesses the intelligence. But there are odd moments when you do feel you are intruding - you have a phone call or access to an e-mail. It's weird but then you have to think about why you're doing it, and that's because the information we're getting is important and necessary to make assessments." When it comes to the controversies swirling around MI5 - especially about allegations of complicity in torture - the three recruits sound as if they have been well-rehearsed in the corporate line.

There are, they say, numerous "safeguards" in place and their superiors urge them to speak up about concerns or unease. They say that they have no problems raising concerns with senior officials because, contrary to popular belief, MI5 is not a stuffy, hierarchical institution. "It's not what I expected," Melissa says. "I think I expected somewhere quite high-pressure with lots of public schoolboys running around, but it's quite diverse and everybody really pulls together as a team. It's probably less competitive than my old PR job." Another factor that relieves the pressure of working life is that, for stark and obvious security reasons, you cannot take your work home with you. "You walk out of this building and you have to leave the job behind," Jo says. "You just have to be a totally different person outside. You can almost feel it physically happen as you step outside. It's quite liberating, actually."

Who keeps our secrets? MI5 candidates must be British citizens resident in the UK for nine of the past ten years Recruits in the past two years came from 36 UK universities 25 per cent of recent recruits graduated from Oxford or Cambridge Successful applicants are expected to have a 2:1 degree 35 per cent of recent recruits have been women 'You walk out of this building and you have to leave the job behind'
Thanks Anon

## More work and another queue, please

"Carstairs, get the gang together will you; there’s some building work to be done."
"Really Sir, what work might that be?"
"Similar to that in the $* * * * * * *$ Embassy, where our work was assessed in the Times!"
"And the fifty quid, Sir?"
"Out of your own pocket, Carstairs; these are austere times.
Nudge nudge..........
'Borne' not 'bared' by the way... (Bear and its past participle!)
Nice terraced building on the North kerb as you walk from Gloucester Rd to Queensgate SW7

Electronic Technicians, West London - wonder where that is then? [Won't guess in case we're right].

Imagine the entrance exam for this one.....
Q. Give three reasons for using the Yagi antenna at VHF/UHF. A. Size and directional, with good gain in forward direction.

Q When climbing a telegraph pole what precautions should you take?
A. Remove or cover with tape all rings/finger jewelry; lash the ladder and use a safety belt to secure yourself when working aloft.

## Carpenters

Q Why do you want this job?
A Need the work Guv'nor.
Q Have you read 'Spycatcher' at all?
A No, but I can easily make a teapot stand out of Yellow Deal and hardboard featuring a cross halving joint, screwing and use of Try \& Mitre squares, Gauge, Jack Plane, Firmer chisel, Mallet and Tenon saw.
"We were looking for restoration of tables/chairs. Door repair, moudings, plastering, paint colour matching, that sort of thing."
"I’ll clean your gutters for a fiver, Guv....."

Electronic Tochnicians 827,250 Wes London We can't reveal too much obsut the electronic devicen you'll be working with, but we can tell you that they'll be playing an imporfant part in pratecting notional securily. Our Eloctronic technicians ore responsible for installing, servicing and maintaining the alectronic equipment our operahonal toams rely on to succestully corry out invesfigations. We need people with a notionally rocognised qualification in elecfronies or dafa communication:

Carpenters/Multi-Traders $£ 27,250$ + avertirie landon If you have a notionally recognized quolification in carpentry plus demonstrable experience we want to hear fram you. You'll be oble to work neatly and precisely with a variety of tools and wril have a general understanding of construction. Flexitity and teom wotking skills are essentiol.
To find out more and apply, veit www.mi5.gov,ulc/careers
To appy you must be over It ond a Britifh cinzen. Distretion is wital Noo thauld nof dikcus yoner applicatiait offer Alari mith your parther or a clowe fasily niember.


Remember British Citizens only [sorry no EU building types] and keep your gob shut about this one, too.

Is something going on we don't know about - all these jobs appearing? I've actually got a joke about a blind master carpenter who goes for an interview for a job at MI5 but, due to its adult nature, cannot be told here. [You've heard it already 499]!

I am also qualified in Electronics and Woodwork, which I once taught at secondary level - go on Five give me a pat on the back..... [but put the salary up by $15 k$ to get me to even consider]. Don't bother - just discovered you want a Driving Licence and I can't offer thanks to the driver of EDY409E on Sunday 9th July 1967.

Undercover Austrian police officer beat up black U.S. teacher he mistook for an African drug dealer

## By Daily Mail Reporter

http://www.dailymail.co.uk/news/article-1346115/Austrian-police-officer-beat-black-US-teacher-mistook-African-drug-dealer.html
Mike Brennan, 34, from Jacksonville, Florida, was assaulted by an undercover police officer who mistook the black American teacher for an African drug dealer at a subway station in Vienna

A black American teacher working in Austria was attacked by an undercover police officer who mistook him for an African drug dealer, a Vienna court heard today.
Mike Brennan suffered injuries to his back, head, neck, hand and wrist during the incident on February 11, 2009, in a subway station in the Austrian capital.
The unnamed officer, who pleaded not guilty, had faced up to three years in prison, but a judge fined him just 2,800 euros (\$3,620).
The Vienna police department has said the officer who was charged - and another who wasn't - mistook Brennan for a drug dealer of 'almost identical' appearance and acknowledged they used force and injured him.

Brennan, originally from Jacksonville, Florida, claims the officer failed to identify himself properly before knocking him down on the platform and punching him.
Brennan was getting off the train at about 2:30pm when he was attacked.
The officer, who cannot be named under Austrian law, disputed that he hit Brennan.
Judge Patrick Aulebauer found that the attack did not amount to battery but that the officer behaved negligently.
'To a certain extent it's understandable that it came to this mix-up and that you thought Mr Brennan was the one you're supposed to arrest,' Aulebauer told the officer.
'But that doesn't mean this mix-up could not have been avoided.'
Brennan, who works at the Vienna International School, said he was 'not happy' with the sentence and that he would talk to his lawyer about possibly suing for damages.
'I still have to deal with the physical and mental pain and that's nothing compared to what his sentence is, it doesn't equal that at all,' Brennan said after the verdict.
During a previous trial session in October, Brennan said it took the officer a long time to flash his badge and that he did so only after his girlfriend spoke to him.
The officer, however, countered that his badge was always visible and that he shouted 'Police! Police!' before touching Brennan.
The officer said he would use a three-day window to decide whether to appeal the ruling.
http://www.dailymail.co.uk/news/article-1346115/Austrian-police-officer-beat-black-US-teacher-mistook-African-drug-dealer.html
Iphone and Android hacks can turn them into spying devices
http://www.theinquirer.net/inquirer/news/1937789/iphone-android-hacks-spying-devices
IPHONE AND ANDROID DEVICES will be hacked at next week's Black Hat conference in a demo to show that they can be turned into spy machines.
University of Luxembourg research associate Ralf-Philipp Weinmann told Computerworld that his technique will break into a smartphone's baseband processor, which sends and receives radio signals as it communicates with the mobile network. A hacker can then listen in to conversations from far away.

Weinmann said that there are bugs in the way Qualcomm and Infineon chips process radio signals on GSM networks. Previously, attacks on Iphone and Android devices have generally focused on hacking their operating systems.

But it would be difficult to attack a smartphone this way in the real world. As a smartphone has to communicate with a mobile phone tower, Weinmann needs to set up a fake cellphone tower and make the targeted phone communicate with it. Only then can he send malicious code.

But setting up a fake radio tower is apparently becoming easier. You'll also see more baseband attacks in the future, as research is increasing in this area. In a couple of months, hackers will be invited to break into mobile phones at the CanSecWest conference. For cash prizes! $\mu$
http://www.theinquirer.net/inquirer/news/1937789/iphone-android-hacks-spying-devices

## Those Celebrity Phones

Anyone in Britian cannot help but be aware of the nonsense news concerning this 'Hacking' of celebrities phones.
Now, as if walking around with a pug dog in a bag isn't outlandish enough; you just have to be able to say that you're important enough to have had your mobile phone 'Hacked.'


BT's System 4 telephone

Gone are the days of listening on a scanner to the mid-VHF freqs that served BT's System 4 mobile phone system that predated the cellphone by some years - those freqs went to PAKNET; or listening to the cordless phones, legal, illegal or just in the right place. Freqs in the 1.6 to $1.8,3.4$ to 3.6 MHz range, $31,33,36,46,49$ and 173 MHz bands ensured you were 'Never alone with a Strand.'

Even the emerging analogue cellphone technology could be intercepted on scanners whose freq range extended tp 1 GHz .

But then again, it didn't matter if it didn't have that all elusive upper freq range - if you had the ability to tune around $417-460 \mathrm{MHz}$ then chances were the unit you were using was so cheaply made the poor IF response and front end filtering just ensured you'd be able to copy the action without outlaying megacash to listen to conversations at $£ 1 /$ per minute that were assumed to be most private, but were anything but.


Now, a simple procedure ensures mailboxes and voice messages are open to abuse; you know its true because people like Gordon Brown and Tessa Jowell [ugh!] claim to have been 'interfered with' [Good Lord! Tessa...] and the PMs Communications wallah 'I didn't do it honest'Mr Coulson has resigned.

I felt compelled to include the cartoon from the Metro newspaper which hits the nail right on the head. Well done Brook, all credit to you and the Metro. Anyone remember the 'Squidgy Tapes' that surrounded Princess Diana and one other?

Interesting intercept details from member Anon [Thanks!]
Egypt/Ham radio
From We Re-Build
Ham radio activists are receiving signals in morse code from Egypt. When countries block web, we evolve.
Receive: 40 m band 7050-7100, 20m 1400-14050
We always listen on hamradio 7080.8 kHz CW transmit frequency. We may call CQ SU, best time 18h-20h UTC. Please spread.
PLEASE AVOID INTERFERENCE. Join IRC to help.

## Received messages

- [2011-01-28 10:50]
"internet [not] working, police cars [burning]"
- [00:30 UTC 7078.70-7079.88 kHz]
two sticks, dash, cake with a stick down <perhaps 11-9 or 9-11?>
[today] marks a great day [for] egypt
I need [vuer]
eth2dec
reet now
reet 9 et
for today [...]
it was all
"[time] two sticks, dash, cake with a stick down" 7079.88 kHz
"test time" 7079.88 kHz
"net time, [...] dark skies, bloody [moon]" 7079.55 kHz
"didn't catch that, [repeat]" 7079.55 kHz
CW
"su32 will be [well] known" 7079.55 kHz
"all but one" 7080.23 kHz
"dial not working," 7080.23 kHz
"airports [being shut] down" 7080.23 kHz
"2 miles -- no, [1 miles] away" 7080.23 kHz
"have you been [able] to get a hold [of a] american?" 7080.23 kHz
"have you contacted [anyone] yet?" 7080.23 kHz
"americans, the americans" 7080.23 kHz
"everything is happening, everything we thought" 7080.23 kHz
"I got a contect [from] germany" 7080.66 kHz
"alert to germans" 7080.66 kHz (very faint)
"tomrrow [should] be interesting..." 7080.66 kHz
~00:30 UTC 7078.70 - 7079.88 kHz


## - [2011-01-29 15:09 UTC]

## UNVERIFIED

hellow is anyone there?
americans, the americans
7072.0 khz
7072.00 khz?

104
104.


A leaflet being distributed on the streets of Cairo [fm Anon.....tnx]

## 'Al-Qaida on brink of using nuclear bomb'

By Heidi Blake and Christopher Hope, The Daily Telegraph February 1, 2011 8:47 PM
http://www.vancouversun.com/news/Qaida+brink+using+nuclear+bomb/4205104/story.html
Al-Qaida is on the verge of producing radioactive weapons after sourcing nuclear material and recruiting rogue scientists to build "dirty" bombs, according to leaked diplomatic documents.

A leading atomic regulator has privately warned that the world stands on the brink of a "nuclear 9/11".
Security briefings suggest that jihadi groups are also close to producing "workable and efficient" biological and chemical weapons that could kill thousands if unleashed in attacks on the West.

Thousands of classified American cables obtained by the WikiLeaks website and passed to The Daily Telegraph detail the international struggle to stop the spread of weapons-grade nuclear, chemical and biological material around the globe.

At a Nato meeting in January 2009, security chiefs briefed member states that al-Qaida was plotting a program of "dirty radioactive IEDs", makeshift nuclear roadside bombs that could be used against British troops in Afghanistan.

As well as causing a large explosion, a "dirty bomb" attack would contaminate the area for many years.
The briefings also state that al-Qaida documents found in Afghanistan in 2007 revealed that "greater advances" had been made in bioterrorism than was previously realized. An Indian national security adviser told American security personnel in June 2008 that terrorists had made a "manifest attempt to get fissile material" and "have the technical competence to manufacture an explosive device beyond a mere dirty bomb".

Alerts about the smuggling of nuclear material, sent to Washington from foreign U.S. embassies, document how criminal and terrorist gangs were trafficking large amounts of highly radioactive material across Europe, Africa and the Middle East.

The alerts explain how customs guards at remote border crossings used radiation alarms to identify and seize cargoes of uranium and plutonium.
Freight trains were found to be carrying weapons-grade nuclear material across the Kazakhstan-Russia border, highly enriched uranium was transported across Uganda by bus, and a "small time hustler" in Lisbon offered to sell radioactive plates stolen from Chernobyl

In one incident in September 2009, two employees at the Rossing Uranium Mine in Namibia smuggled almost half a ton of uranium concentrate powder - yellowcake out of the compound in plastic bags.
"Acute safety and security concerns" were even raised in 2008 about the uranium and plutonium laboratory of International Atomic Energy Agency (IAEA), the nuclear safety watchdog.

Tomihiro Taniguchi, the deputy director general of the IAEA, has privately warned America that the world faces the threat of a "nuclear $9 / 11$ " if stores of uranium and plutonium were not secured against terrorists.

But diplomats visiting the IAEA's Austrian headquarters in April 2008 said that there was "no way to provide perimeter security" to its own laboratory because it has windows that leave it vulnerable to break-ins.

Senior British defence officials have raised "deep concerns" that a rogue scientist in the Pakistani nuclear program "could gradually smuggle enough material out to make a weapon", according to a document detailing official talks in London in February 2009.

Agricultural stores of deadly biological pathogens in Pakistan are also vulnerable to "extremists" who could use supplies of anthrax, foot and mouth disease and avian flu to develop lethal biological weapons.

Anthrax and other biological agents including smallpox, and avian flu could be sprayed from a shop-bought aerosol can in a crowded area, leaked security briefings warn

The security of the world's only two declared smallpox stores in Atlanta, America, and Novosibirsk, Russia, has repeatedly been called into doubt by "a growing chorus of voices" at meetings of the World Health Assembly documented in the leaked cables.

The alarming disclosures come after Barack Obama, the U.S. president, last year declared nuclear terrorism "the single biggest threat" to international security with the potential to cause "extraordinary loss of life".
[Thanks for sending in KW]
http://www.vancouversun.com/news/Qaida+brink+using+nuclear+bomb/4205104/story.html

## Here's a cracker sent in from NZ:

## Immigration officer sacked for putting wife on terrorist watch list

LONDON:An immigration officer was so sick of his wife that he put her on a temorist watctstith - so she could not get home (rom Pakistan.
The offices added her name to the register of people banned from flights into the UK while she was visiting
tamily overseas, reports. The Mirror When she went to the airgort to get her return llighr back officials told het she coukd not board the plane and did not explain why
She called hes husband, who promised to look into it, but left her
sturkin Pakistan for threevears while he had the time of his lile:
An immigration sourcet said:/ lot of people may disilike their ather halves: but to do this takes it to the next levet:
The officer was caugh out when bosses vetted him aiter he went for a
promotion that required him to h higher level af tecarity clearance. They reahsed livwhewas on if watch list and asked himfor an explanation. He had to thoipe bit conless what he had done and we flitat-onantintims

When this fluttered out on my inbox I thought it well funny. This [now discredited officer] had a novel solution to his misery and I quickly thumbed through the evening papers looking for any jobs with UK Border Force; sadly there were none.

You'd think he would've put the mother - in - law in the frame too!

## Experimentation with Digital Signal Processing FFT software to analyse X06 and other signals

## by Brixmis

This short article is to let fellow Enigma2000 newsletter readers know of current experimentation using readily available Digital Signal Processing FFT software and Home PC computers, in an attempt to try to digitally 'fingerprint' and identify transmitters and their associated signals.

You are probably asking yourself - what is a radio 'fingerprint'?

My basic understanding would be 'unique signal characteristics that identify a particular transmitter', however for a fuller explanation please see:
http://kb9mwr.blogspot.com/2008/04/transmitter-fingerprinting.html
Several internet references make mention of 'PLL warm-up' being unique to individual transmitters, but that identification and technique would be beyond the means of my humble equipment and abilities.

For several years now it has been possible to purchase specialist signal analysis software, such as HOKA CODE3 or HOKA CODE 300-32 for just this purpose, but the current price tag of the latter at around $£ 5,000-£ 8,000$ has been beyond what I can afford.

Whilst undeniably the above software is very specialist and offers the ability to read and view just about every data mode in use, albeit most are likely to be 'encrypted', it also offers significant capability with regard to signal analysis.

It was hoped that some very basic and rudimentary attempts might be made to use cheaper or free software without the same abilities, in order to learn a little more about the transmissions that Enigma2000 users are interested in.

Initial tests have been made using 'Spectrum Lab’ software, which is available free from http://www.qsl.net/dl4yhf/spectra1.html
This software, written by a Radio Amateur, runs on Windows operating systems and I have used it with both Windows XP and Windows 7 and PC laptops without difficulty. Initially the software configuration setup can look a little daunting and the pictures on the website don't do the software justice, as in use it looks visually stunning, particularly in 3D mode.
'Image One’ shown below is a 2 dimensional screen grab using Spectrum Lab of $\mathbf{S 2 8}$ aka 'The buzzer', on 4625 kHz , and shows visually the full timing and range of audio tones used to generate the 'buzzer' as we hear it. I didn't realise the buzzer sound was as complex as this until I saw this image.

## Image one



## Image Two



Having the ability to visualise the signals we can hear, can definitely help understand them better.
This is particularly relevant to understanding the X06 (Mazielka) 6 tone Russian selcall data system and its associated Crowd36 signals, as seen below in 'Image Three'.

## Image Three



This was a sequence ' 165423 ' X06 transmission recorded in USB mode. Mazielka is transmitted in AM and the correct tones are:

1: $840 \mathrm{~Hz} \quad 2: 870 \mathrm{~Hz}$ 3: 900 Hz 4: $930 \mathrm{~Hz} \quad 5: 970 \mathrm{~Hz} 6: 1015 \mathrm{~Hz}$

You can clearly see in the above image that when this audio sequence was 'captured' the spike for tone 1 had finished and the spike for tone 6 is nearly finished. (Look at the two spikes closest to the front of the picture i.e. nearest to you). Watching the signal in live real-time, or in recorded slow motion, easily lets you work out the tone sequence if you struggle to do it through hearing alone.

What I wanted to do was to try to see if there was anything 'unique' about the X06 transmitters that would help to individually identify them. If I could identify an individual transmitter then I would know which X06 tone sequences it was sending and ascertain if there was any pattern.

In 'Image Four' shown below is a CROWD36 signal, which had immediately followed a X06 tone call-up sequence.
Image Four


Usually there is nothing unusual or unique to see in many of the transmissions, but in this example at an audio frequency of 2.031880 kHz you can see throughout the transmission a line (spurious carrier?) in the trace, above the CROWD36 tones. Is this unique to this transmitter? If it is then any further signals showing the same characteristic are likely to be from the same transmitter.

If this line is caused by something else, QRM, QRN etc. and doesn't appear again then it can be discounted.

In an attempt to find any unique X06 signal characteristics, old recordings of X06 transmissions were acquired and played through 'Spectrum Lab' and it was then realised that the usual MP3 compressed audio format used by most listeners to save space wasn't viable and only higher quality WAV recordings would work.

Even using WAV files, it was found that the recorded quality varied from being very useable at a sampling rate of 11025 and above, and was poor or unusable below that setting. You also need a good 10 seconds recording at least to work with, preferably longer and that leads to large file sizes, which can't be easily emailed to others.

Very early days yet, but hopefully this article may have whetted the appetite of others to experiment with free DSP FFT software, which can look daunting at first.

To aid fellow ENIGMA2000 members I have sent Paul G7VAK two files called Brixmis.ini and Brixmis.USR, which you can use to load and configure almost all of the initial settings to get Spectrum Lab working straight away. All you have to do after that is to select your audio in and audio out from the drop down menu within the programme.

Both my Spectrum Lab initial setup files will be available within the files section of ENIGMA2000 Group in a Spectrum Lab folder for all to share.
To make recordings in any audio format I personally use 'GoldWave’ v5.58 windows software, it isn’t free at $\$ 49$ for a lifetime licence, but there is a trial version to see if you like it.

All the above images were easily readable in .jpg at $100 \%$ resolution, but the resolution suffers when incorporated in this article and you will not be able to see the fine detail that is produced on screen by the FFT software.

## Related websites

http://www.hoka.com/
http://www.qsl.net/dl4yhf/spectra1.html
http://kb9mwr.blogspot.com/2008/04/transmitter-fingerprinting.html
http://www.goldwave.com/

## Automatic Monitoring

By PLdn
This piece was suggested by a Group message from Peter Staal who asked how Ian Wraith and others monitor automatically. I once sent a private email concerning the M01 Saturday 1500 z transmission. A question was asked which I was unable to answer because at the time I was up a ladder doing house repair, which I stated. The member I was in contact with made the remark that I knew how to monitor.

My early monitoring on HF was manual and I used a reel to reel recorder for that from a B40 Naval Receiver. However someone gave me a time switch to mess around with and a little use of the soldering iron soon had the motor switching on or off twice a day. Since I wasn't too keen to burn my flat down I only used it when I was indoors, but it was alright for nights. It was during one of these sessions that I caught a series of 'interesting' messages and I was obliged to inform the authorities that led to a visit by the blokes in suits. They weren't kindly disposed to what I was hearing and took my tapes with them when they left. I cannot say more about this other than to say the 'Crown' was very interested in what I had intercepted along with the usual threats of OSA etc.

I used to monitor VHF fairly regularly. To illustrate how long ago I was using a Bearcat Scanner 210, 'Listen into a million lives tonight.' It was 1980. To catch the action, such as it was, I made a one transistor sound switch; bit of sound on the transistor base, the transistor conducts and the relay changes state, contacts close and the recorder becomes active.

The recordings were good but the audio quality was fairly changeable because of level variation. It was then I discovered a passive circuit compressor that set the recording level to a level the recorder liked. That circuit remains in use, in several units, to this day.


Because of component availability I now use for C1 and C2 2 u 2 tantalum whilst D1 and D1 are 1 N 4148 diodes. I cannot recall where I discovered the circuit but all credit to its designer.

When portable transistorised short wave communications receivers arrived on the market the memories, line outputs and timers really smartened things up remote wise. One such example was the Sangean ATS 803, It was seen badged for others too. Timer and 9 active memories were helpful but auto monitoring, if only for one station, was easier. The sound switch was still used and the power was on, but control was simple.

Then generic communications receivers such as the FRG-100 arrived with two timer facilities and as many memories you'd care to fill up, and forget, with those important frequencies. Control sockets were fitted with a relay inline to activate recorders via the remote socket and bingo! autorecording was starting to take off. Its worth noting that the age of the personal computer was also upon us and that receivers conveniently had PC control capabilities built into them via an overpriced serial cable. Any time and many memories coupled with frequency selection meant that for those with the finances and the wherewithal auto monitoring was here.

As PC's became available at more sensible prices and use of different sound recording programs appeared an apparent backward step appeared to be taken by Roberts Radio in the sale of the C9950 dual speed cassette recorder with timer.
Not only that but it could also be activated by sound or by the timer from a variety of radios fitted with control output for that purpose.
The Sony receiver ICF 2001D [aka ICF 2010D] has four timers available to switch a frequency from a selection of thirty two memories. Unfortunately the duration selectable is somewhat inflexible being set for $0,15,30$ or 60 minutes. With a simple audio/audio lead and accurate setting of the timer facility on the C9950 recorder the set was useful.

It was in conversation with GD that the Ten-Tec Rx320 was mentioned. I read John Wilson's review in the Short Wave Magazine June 2002 and liked what I read. This was followed up by another very favourable review in the Monitoring Times, by Lee Reynolds, of June 2003. The unit is not a SDR, more it is a computer controlled radio with great potential.
I purchased a unit and ran it up on the PC. In my opinion the software supplied by Ten-Tec did the unit no favours. A very disappointing display, poor control and less facilities than one would wish for.
Reading on in the same MT was an informative piece entitled 'Software for the Rx320.' How I missed it first time around is a mystery. It was written by the same author and outlined commercial and freeware programs. Two programs that caught my eye was Gerd Niephaus' GNRX320, which I use on my small ASUS EEE pc when out and about. Sadly, it doesn't have a timer but that doesn't matter because the reconfigured from Linux to XP OS means there is no direct display of time for the radio application. But it works!

Another program which is well written, and I emailed the author to state my pleasure with his product, is 'Scan320' by Tom Lackamp.


It's a program that suited me; easy to use with scan, memories and a log. More importantly it has a scheduler. I set up an entire months listening just before the month end. All recording is sent to the host PC from the Line Out socket. Spending a little time means decent recordings from automatic operation. I was using this set-up when the remark concerning '....knowing how to monitor' was made.

Antennae for unattended operation is always a problem where lightning is concerned. I live on a hill, the highest point in London and I am necessarily worried about strikes or induced voltages into my system. I keep a surge arrestor in line with the antenna [one antenna serves four receivers] to exclude harmful voltages.

As a necessity I keep an eye on the weather warnings since no surge arrestor would save equipment in the event of a lightning strike.

Where there is an absolute necessity for some monitoring during storms I also have the AoR LA380 loop antenna. It works.

During my travels I leave an autosystem behind that functions well. This consists of a Sony ICF-SW55 and the Roberts C9950 recorder. The SW55 has a remote control output and interfaces well with the recorder in this aspect. The audio, via Line Output, is good quality also.


Obviously a better antenna than the internal whip is needed and this is simply a wire strung high on 3 of the 4 walls of the shack [below, left]. Again I guard against damage from static pulses by including a couple of diodes in the homebrewed adaptor that enables me to attach to a variety of connectors that may allow me to access an antenna [below,right].


Even when I am with my wife on my holidays I auto-monitor. Last year, in Cornwall, I maintained good coverage using the miniature Sony ICF-SW100e, a Sony active antenna [powered from the radio] and a Sony Cassette-corder. All worked fine. The image of the actual set up appeared in my column in EyeSpyMagazine, Issue 69 where I wrote about the ten alleged Russian spies that were arrested whilst I was on my hols. The image below shews the receiver, recorder and active antenna as used in Cornwall.

At the Hotel over the evening meal, the two persons we shared the table with talked about the arrest and the lady asked how the spies received their instructions.

I'll bet she wished she hadn't asked as I told her what I knew, suitably embellished for effect! I wonder what they would have thought if they'd known that whilst we were talking a little set up in my room had already captured XPA in the morning and was going to capture the 2130z E06 15 group message, followed by the 0130 and $0230 z$ offerings?


I have recently purchased the WinRADIO G31DDC a SDR also named the Excalibur. Excellent receiver that I am using to automatically intercept all and sundry. Number Stations, BC stations, Air Radio - its all so easy once the vagaries of the scheduler are mastered. However, the audio is a little difficult. Setting the level is a problem; its all done at software level and low levels of audio appear to be a better option rather than to chance a specific setting. Nonetheless the V02a transmissions used in the 'different group' analysis in the last newsletter [En62] were captured on the G31DDC and were useable.


My latest purchase is the Eton G3[seen above]. It has four timers which apart from the time, the day and duration are also variable. I use this at the moment to intercept V02a which is undergoing further analysis. The recorder seen here is a Sony ICR-BX800 which has a voice recording option and in standard quality will give five hours unattended operation. There are some power problems here and I have designed a modification without ruining the operatability of the little recorder as can be seen at the end of this piece. Further work will be carried out to give even greater capacity.

Auto monitoring is easy and effective if you give a little thought about what you wish to receive.

You needn't spend lots of money on it.

At the moment I am experimenting with two solid state recorders. As stated the only problem here is the battery capacity and an external battery pack is the order of the day; that may also need further development .

One type is a very small unit and is carried with me along with another receiver that has no relevance in this discussion.

I also have an HF 225 and like Ian I have used it for a one off recording. I actually use that for RDF, but that is an entirely different matter.

For any receiving equipment left unattended remember to fit a surge arrestor as seen here attached to the 4 way splitter in my shack, even if the equipment is battery powered and not referenced to earth.


| AUTO | $\underline{\text { Stn }}$ | $\frac{\text { FREQ }}{\underline{\mathrm{kHz}}}$ | TIME z | DATE | OBSERVATION | Duration | By | DAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| x | E07a | 5846 kHz | 0550z | 13/01/2011 | [188 000] 0552z Strong | (2m16s) | PLdn | THU |
| X | E07 | 5416 kHz | 0800z | 13/01/2011 | [489 000] 0802z | (2m13s) | PLdn | THU |
| X | E11 | 9079kHz | 0930z | 13/01/2011 | [270/00]OUT 0933z Strong | (3m16s) | PLdn | THU |
| x | E11 | 5082 kHz | 1730z | 13/01/2011 | [416/00]OUT 1733z Fair | (3m16s) | PLdn | THU |

Above is a section of my log book illustrating some auto monitoring whilst I am at work.


Battery box below the recorder holds two D Cells.


Three useful recorders. The Tascam, centre, is a professional unit with no VoR capability.

## Finally details of a recent E25 auto intercept and log entry and spectral view of the transmission.

Message details:

1150zMx; 1154z:
555(R5)
Msg Msg
51046031874104133253
88826157780384870312
882224578741
Rbt Rbt Rbt
msg txt EoM 1200z

1205z
440(R10)
Msg Msg Msg
82374001471088771161
81155908814101053069
173079194710
Rbt Rbt Rbt
msg txt EoM EoT 1211z

1303xMx; 1309z:
222(R10)
Msg Msg Msg
70452431666105049868
40332180560217334275
216775816661
Rbt Rbt Rbt
msg txt EoM EoT 1316z

Log entry:

| AUTO | $\begin{aligned} & \text { Stn } \\ & \text { ID } \end{aligned}$ | FREQ kHz | TIME z | DATE | OBSERVATION | Duration | By | DAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| x | E25 | 9450 kHz | 1150z | 22/02/2011 | [1150zMx; 1154z: 555(R5) Msg Msg 510460318741 0413 3253; 8882615778038487 0312; 88222457 8741 Rbt Rbt Rbt msg txt EoM 1200z ] Noisy but readable |  | PLdn | TUE |
| x | E25 | 9450 kHz | 1205z | 22/02/2011 | [440(R10) Msg Msg 8237400147108877 1161; 8115590881410105 3069; 173079194710 EoM EoT 1211z ] Noisy but readable | (10m47s) | PLdn | TUE |
| x | E25 | 9450 kHz | 1303z | 22/02/2011 | $\begin{aligned} & \text { [1303xMx; 1309z: 222(R10)Msg Msg Msg } 70452431 \\ & 66610504 \text { 9868; } 40332180560217334275 ; 2167 \\ & 75816661 \text { EoM EoT 1316z] Noisy but readable } \end{aligned}$ |  | PLdn | TUE |

Full E25 transmissions as shewn in message details:


# Chart Section Index 

1. Logging Abbreviations Explained
2. European Number Systems
3. Prediction Chart
4. M12 January and February 2011
5. Family 1a
6. Family 1b [E07]
7. Family III
8. G06
9. S06s Schedules
10. Current Cuban Schedules, January and February 2011
11. XPA Polytones

## Logging Abbreviations explained.

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


Repeated: $\quad$ 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.

## European Number Systems

| 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^ $^{\wedge}$ | 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 ${ }^{\wedge}$ | 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' |

${ }^{\wedge}$ Some German numerals have a radio accent. The numbers in question are:

> 2 ZWEI pronounced by some TXs, as TSWO.
> 5 FUNF some pronounce it as FUNUF poss hrd as a fast TUNIS
> 9 NEUN pronounced by some as NEUGEN.

This is totally in keeping with some German armed forces stations and corresponds to our WUN, FOWER, FIFE, NINER

## 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 |
|  | $\bullet$ | 1 | $r$ | $r$ | $\varepsilon$ | 0 | 7 | $\vee$ | $\wedge$ | 9 |

## Numeral systems used on selected Slavic Stations [Stations apparently discontinued]

|  | S11a <br> Cherta | S10d | Sl1 Presta | S17c |
| :---: | :---: | :---: | :---: | :---: |
| 0 | nul | Nula* | zero | Nula* |
| 1 | adinka | Jeden ${ }^{\wedge}$ | yezinka | Jeden^ |
| 2 | dvoyka | dva | dvonta | dva |
| 3 | troyka | tri ' | troika | tri ${ }^{\text {c }}$ |
| 4 | chetyorka | shytri | chidiri | shytri |
| 5 | petyorka | pyet | peyonta | pyet |
| 6 | shest | shest | shes | shest |
| 7 | syem | sedoom | sedm | sedoom |
| 8 | vosyem | Osoom~ | osem | Osoom~ |
| 9 | dyevyet | devyet | prunka | devyet |

Notes: * Nula heard as nul
$\wedge$ Jeden heard as yedinar

- Tri heard as 'she'
~ Osoom often heard as bosoom or vosoom.




| $\begin{aligned} & \overline{\text { g }} \\ & \sum_{i}^{0} \end{aligned}$ | $\underset{\substack{0 \\ \underset{H}{2}}}{\substack{0 \\ \hline}}$ | $\begin{aligned} & 0 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & \text { Z } \\ & \stackrel{\text { H }}{ } \end{aligned}$ | $\begin{aligned} & \hline-\vec{y} \\ & \text { H } \end{aligned}$ | $\begin{aligned} & +\begin{array}{r} \pi \\ \omega \end{array} \end{aligned}$ |  | UTC | wk | Stn | Fam | Mar <br> kHz, ID, ... | Apr <br> kHz , ID, ... | General Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | x |  |  |  | 1942 |  | M01B | 14 |  | $\begin{aligned} & 3715,4570 \\ & 477 \end{aligned}$ |  |
|  | x |  | x |  |  |  | 2000 |  | M01 | 14 | $\begin{aligned} & 5020 \\ & 463 \end{aligned}$ | $\begin{array}{r} 5020 \\ 463 \\ \hline \end{array}$ |  |
| x |  | x |  |  |  |  | 2000/2020/2040 |  | E07 | 01A | $\begin{aligned} & 9273 / 7873 / 6873 \\ & 288 \end{aligned}$ |  |  |
|  |  | x |  |  |  |  | 2000/2020/2040 |  | E07A | 01A |  | $\begin{aligned} & 8173 / 7473 / 5773 \\ & 147 \end{aligned}$ |  |
| x |  |  | x |  |  |  | 2000/2020/2040 |  | M12 | 01B | $\begin{aligned} & 9176 / 7931 / 6904 \\ & 257 \end{aligned}$ |  |  |
|  |  |  |  | x | x |  | 2000/2100 | 1/3 | M14 | 01A | $\begin{aligned} & 5810 / 5240 \\ & 724 \end{aligned}$ |  |  |
|  |  |  |  | x |  |  | 2002 |  | M01B | 14 | $\begin{aligned} & 3625,4440 \\ & 153 \end{aligned}$ |  |  |
|  |  |  |  | x |  |  | 2010 |  | M01B | 14 |  | $\begin{aligned} & 3520,4585 \\ & 582 \end{aligned}$ |  |
|  |  |  | x |  |  |  | 2010/2030/2050 |  | E07 | 01B | - | 9387/7526/5884•358 |  |
| x |  |  |  |  |  |  | 2015 |  | M01B | 14 | $\begin{aligned} & 3644,4454 \\ & 771 \end{aligned}$ |  |  |
| x |  |  |  |  |  |  | 2015/2115 | $2 / 4$ | S06 | 01A |  | $\begin{aligned} & 9095 / 7630 \\ & 285 \end{aligned}$ |  |
|  |  |  | x |  |  |  | 2030 |  | E06 | 01A | $\begin{aligned} & 5186 \\ & -891 \end{aligned}$ | $\begin{aligned} & 5186 \\ & 891 \end{aligned}$ |  |
|  |  |  |  |  | x |  | 2030 (2035) | 1/3 | G06 | 01A | $\begin{aligned} & 8023 \\ & 364 \end{aligned}$ | $\begin{gathered} 8023 \\ 364 \end{gathered}$ | since 11/09, last $\log 12 / 10$ yearly changing id |
|  |  |  | x |  |  |  | 2042 |  | M01B | 14 | $\begin{aligned} & 3715,4570 \\ & 477 \end{aligned}$ |  |  |
|  |  | x |  |  |  |  | 2100/2120/2140 |  | E07A | 01A | $\begin{aligned} & 5864 / 5164 / 4564 \\ & 815 \end{aligned}$ |  |  |
|  |  | x |  |  |  |  | 2100/2120/2140 |  | M12 | 01B | $\mathrm{C}^{-}$ | 6793/ 5893/ 785, search |  |
|  |  |  |  | x |  |  | 2110 |  | M01B | 14 | $\begin{aligned} & 3520,4585 \\ & 582 \end{aligned}$ |  |  |
|  |  |  | x |  |  |  | 2110/2130/2150 |  | E07 | 01B | $\begin{aligned} & 7516 / 5836 / 4497 \\ & 584 \end{aligned}$ |  |  |
| x |  |  |  |  |  |  | 2115/2215 | $2 / 4$ | S06 | 01A | $\begin{aligned} & 7680 / 5395 \\ & 492 \end{aligned}$ |  |  |
|  |  |  |  | x |  |  | 2130 |  | E06 | 01A | $\begin{gathered} 5197 \\ 634 \end{gathered}$ | $\begin{gathered} 5197 \\ 634 \\ \hline \end{gathered}$ |  |
|  |  | x |  |  |  |  | 2200/2220/2240 |  | M12 | 01B | $\begin{aligned} & 5763 / 5163 / 4463 \\ & 714 \end{aligned}$ |  |  |


| 응 |  | $0$ |  |  |  | \％${ }^{\circ}$ |  | 20 |  |  | $\stackrel{1}{7}$ |  |  |  | 9 |  | ช |  | $\underset{\sim}{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ¢\％ | $\left\|\begin{array}{l} 0 \\ 0 \\ 0 \end{array}\right\|$ | $00_{0}^{0} 0$ | 0 | $\underset{\sim}{2}$ |  | $\cdots$ |  |  | N | 0 |  |  |  | 0 | 0 | $\stackrel{N}{N}$ | $\stackrel{\sim}{\sim}$ |  |  |
| 9 |  | $\stackrel{\text { ¢ }}{ }$ | $\mid$ | ¢ | が俞 | へ |  | $\bigcirc$ |  |  | \％ | － |  |  | \％ | ¢ | N | N | $\stackrel{\sim}{\sim}$ |  |  |
| 品荷 |  | $\left\lvert\, \begin{gathered} \substack{\alpha\\ } \end{gathered}\right.$ |  | ： | ： | St |  |  |  |  | 0 | ： |  |  | $\left\|\begin{array}{c} \underset{\sim}{\tilde{O}} \\ \mathrm{~B} \end{array}\right\|$ | ： |  | $\stackrel{\rightharpoonup}{\mathbf{O}}$ | $\left.\begin{array}{\|c} \infty \\ \underset{\sim}{2} \\ \hline \end{array} \right\rvert\,$ |  |  |
| $\left\|\begin{array}{cc} 0 \\ 0 & 0 \\ 0 & 0 \end{array}\right\|$ |  | 윽 | 영 | $\begin{aligned} & 9 \\ & \hline 0 \\ & 0 \end{aligned}$ | ¢ |  |  | Ni\|l |  |  | O | $\bigcirc$ |  |  | N | － |  | $\stackrel{\substack{c}}{\stackrel{\rightharpoonup}{2}}$ | $\begin{array}{\|c} \substack{9 \\ 0} \end{array}$ |  |  |
|  |  | $\left\lvert\, \begin{gathered} \substack{人_{0}\\ } \end{gathered}\right.$ | $\left\|\begin{array}{c} \infty \\ \\ i \end{array}\right\|$ | 䢔 |  | 齊 |  | N |  |  | － |  | \％ |  | 管 | N |  | ＜ | $\left\lvert\, \begin{aligned} & \infty \\ & \tilde{n} \\ & \underset{\sim}{0} \end{aligned}\right.$ |  |  |
| $$ |  | $\mid \stackrel{i}{\circ}$ | $$ | ใ̛ㅇ | ¢ | － |  | 앵 |  |  | － |  | Nิ |  | 응 | \％ | O | － | $\left\lvert\, \begin{array}{\|c} \stackrel{\rightharpoonup}{0} \\ \mid \end{array}\right.$ |  |  |
| 号苞苞 |  | $\left\|\begin{array}{c} \check{c} \\ \underset{\infty}{\infty} \end{array}\right\|$ | $\left\|\begin{array}{c} o ̛ 0 \\ \vdots \\ 子 \end{array}\right\|$ | 令 |  | $\overline{7} \left\lvert\, \frac{7}{\boldsymbol{z}}\right.$ |  | 等 |  |  | ¢ |  | 碳 |  | 尔 | \％ |  | ¢ | $\stackrel{\sim}{0}$ |  |  |
| $\left\|\begin{array}{\|cc\|} \hline 0 & 0 \\ E & \\ \hline 0 \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & \stackrel{\circ}{E} \\ & \underset{Z}{2} \end{aligned}\right.$ | $\mid \underset{\substack{0 \\ \hline \\ \hline}}{ }$ | $\begin{array}{\|c} 8 \\ 0 \\ 0 \end{array}$ | Ne | $8$ |  |  | 영 |  |  | － |  | － |  | \％ | 응 |  | － | 응 |  |  |
|  | $\left\|\begin{array}{l} 1 \\ \stackrel{\rightharpoonup}{\tilde{n}} \end{array}\right\|$ | $\left\|\begin{array}{c} N \\ E \\ \bar{n} \end{array}\right\|$ | $\begin{gathered} m \\ 2 \\ \sum_{2} \end{gathered}$ |  |  |  |  | $$ |  |  |  |  |  |  |  |  |  |  | 令 |  |  |


| gis |  |  | N |  |  |  | $\infty$ |  |  | ন | N | $\stackrel{\sim}{\sim}$ |  | จ |  | $\stackrel{\infty}{\sim}$ |  |  | $\exists$ | ন |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\left\lvert\, \begin{gathered} \text { 苞 } \\ 0 \\ 0 \\ 0 \end{gathered}\right.$ |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\stackrel{0}{N}$ | $\left\lvert\, \begin{array}{l\|l\|l\|l\|l\|l\|} 0 & 0 \\ 0 & 0 \\ 0 \end{array}\right.$ | $\begin{array}{ll} 0 \\ 0 & 1 \\ 0 \end{array}$ | 罢 | $\begin{aligned} & \hat{y} \\ & \hat{c} \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\stackrel{\circ}{7}$ | $\stackrel{\sim}{N}$ | H2 |  | $\stackrel{\rightharpoonup}{N}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | ¢ |  |  | $\begin{array}{\|c} \substack{0 \\ \underset{\sim}{2} \\ \hline} \end{array}$ | $\stackrel{?}{7}$ |  |  |
| O |  | $\mid \hat{e}$ | $\stackrel{\infty}{\hat{6}}$ | $\stackrel{\sim}{7}$ | m | N | へ | o | ¢ | $\stackrel{\sim}{\sim}$ | $0$ | in |  | － | $\begin{array}{\|c} \hline 9 \\ \hline \end{array}$ | $\dot{\sim}$ |  |  | へิ | $\stackrel{\sim}{\sim}$ |  |  |
| 句空空 |  |  | $\left\|\begin{array}{l} \infty \\ \infty \\ 0 \\ 0 \end{array}\right\|$ |  |  | $\begin{aligned} & \pm \\ & \hline 0 \end{aligned}$ | $\left\|\begin{array}{c} 1 \\ 0 \\ 0 \end{array}\right\|$ |  |  | $\begin{aligned} & \infty \\ & \underset{\sim}{\mathrm{O}} \end{aligned}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \ddot{0} \\ & \hline 0 \end{aligned}\right.$ | $\left\lvert\, \begin{array}{\|c} \hat{i n} \\ \hline i \end{array}\right.$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \stackrel{N}{\Omega} \\ & \widehat{6} \end{aligned}$ |  | $\begin{aligned} & \mathfrak{m} \\ & \infty \\ & \infty \end{aligned}$ |  |  | $\begin{aligned} & \text { ti } \\ & \hline \mathbf{O} \end{aligned}$ | $\left\|\begin{array}{l} \infty \\ \underset{\sim}{n} \\ \underset{\sim}{2} \end{array}\right\|$ |  |  |
|  |  | $\stackrel{0}{9}$ | $\left\|\begin{array}{c} 0 \\ 0 \\ 0 \end{array}\right\|$ | $\left\|\begin{array}{l} 0 \\ \hline 0 \\ 8 \end{array}\right\|$ | $\begin{aligned} & \mathrm{O} \\ & \mathrm{O} \\ & \hline \end{aligned}$ | $\stackrel{\circ}{9}$ | $\begin{gathered} o \\ \underset{N}{2} \end{gathered}$ | 승 | $\left\lvert\, \begin{array}{\|c} \text { 긍 } \\ \hline 0 \end{array}\right.$ | $\stackrel{\underset{\sim}{\mathrm{N}}}{\mathrm{~N}}$ | of | $\begin{array}{\|c} 9 \\ 9 \\ \hline 1 \end{array}$ |  | $\stackrel{0}{9}$ | $\underset{\sim}{\underset{\sim}{\mathrm{N}}}$ | $\left\lvert\, \begin{array}{\|c} \mathbf{N} \\ \mathbf{O} \end{array}\right.$ |  |  | $\stackrel{\substack{0 \\ ~}}{ }$ | $\frac{\mathrm{O}}{\mathrm{~A}}$ |  |  |
| 总苓 |  | $\left\lvert\, \begin{array}{\|l\|} \mathfrak{e} \\ \underset{R}{\circ} \end{array}\right.$ | $\left\|\begin{array}{c} \infty \\ n \\ i \end{array}\right\|$ |  | $\begin{aligned} & \stackrel{*}{*} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 要 | 乙 | $\left\lvert\, \begin{gathered} n \\ \substack{n} \end{gathered}\right.$ | $\begin{array}{\|c} \mathrm{N} \\ \mathrm{~N} \\ \hline \end{array}$ | $\begin{aligned} & \infty \\ & \underset{\sim}{\mathbf{q}} \end{aligned}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \underset{\sim}{n} \\ & i \end{aligned}\right.$ | $\hat{N}$ |  | $\stackrel{\sim}{\mathrm{O}}$ | $\begin{aligned} & F \\ & \hline \end{aligned}$ | $\left\lvert\, \begin{gathered} \tilde{c} \\ \stackrel{\rightharpoonup}{n} \\ \hline \end{gathered}\right.$ | N |  | $\begin{aligned} & \leq \\ & \substack{n \\ \Omega} \end{aligned}$ | $\begin{aligned} & \infty \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |
| \| |  | $\left\|\begin{array}{c} \stackrel{\rightharpoonup}{\mathrm{R}} \\ \underset{\sim}{\infty} \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \mathrm{N} \\ \mathrm{~N} \\ \hline \end{gathered}\right.$ | 途 | 엉 | $\stackrel{\rightharpoonup}{\lambda}$ | $\left\|\begin{array}{c} \mathrm{N} \\ \text { N} \end{array}\right\|$ | 잉 | R్ల్ | 츠N | N | $\xrightarrow{\text { Nิ }}$ |  | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \underset{\sim}{2} \end{aligned}$ | $\underset{\mathrm{N}}{\mathrm{~N}}$ | 앙 |  | 通 | $\begin{gathered} \underset{N}{\mathrm{~N}} \\ \mathrm{~N} \end{gathered}$ | $\left\lvert\, \begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{N}} \\ & \hline \end{aligned}\right.$ |  |  |
| 总空空 | $\left\|\begin{array}{c} 0 \\ 0 \\ 0 \\ 1 \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & \grave{\alpha} \\ & \underset{\infty}{\infty} \\ & \hline \end{aligned}\right.$ | $\left\|\begin{array}{c} \infty \\ \hat{6} \\ \dot{q} \end{array}\right\|$ | $\stackrel{y}{4}$ | $\begin{aligned} & * \\ & * \\ & 0 \\ & 0 \\ & 0 \\ & f \end{aligned}$ | 㐎 | Z | $\stackrel{\tilde{F}}{\mathcal{F}}$ | $\left\|\begin{array}{c} \infty \\ \infty \\ \infty \\ \infty \end{array}\right\|$ | $\begin{aligned} & \infty \\ & \underset{\sim}{\mathrm{N}} \end{aligned}$ | $\begin{aligned} & \infty \\ & \underset{\sim}{0} \\ & \underset{子}{2} \end{aligned}$ | $\begin{aligned} & \hat{e} \\ & \hat{1} \end{aligned}$ |  | $\stackrel{\Delta}{\grave{\infty}}$ | $\begin{array}{\|c} \mathbf{O} \\ 0 \\ n \\ n \end{array}$ | $\mathfrak{F}$ | ¢ | $\begin{aligned} & \underset{\sim}{\infty} \\ & \stackrel{N}{1} \end{aligned}$ | $\begin{aligned} & \hat{0} \\ & \stackrel{\rightharpoonup}{\sigma} \end{aligned}$ | $\left\|\begin{array}{c} \infty \\ \tilde{\sigma} \\ \hline \end{array}\right\|$ |  |  |
| \| |  | $\mid \underset{\sim}{\infty}$ | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | \|en | $8$ | $\stackrel{8}{9}$ | $\left\lvert\, \begin{gathered} \mathrm{O} \\ \hline \end{gathered}\right.$ |  | 응 | $\stackrel{\mathrm{O}}{\mathrm{~N}}$ | ） | $\stackrel{8}{9}$ | 1 | $\underset{\sim}{\infty}$ | 으N | \％ |  | N్స్రి | $\stackrel{\mathrm{O}}{\mathbf{O}}$ | $\begin{aligned} & \mathrm{O} \\ & \mathrm{O} \end{aligned}$ |  |  |
|  | $\left\|\begin{array}{l} \infty \\ \vec{n} \\ \tilde{n} \end{array}\right\|$ | $\left\|\begin{array}{c} a \\ \vdots \\ n \end{array}\right\|$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 2 \end{aligned}$ |  |  |  |  | 777 |  |  | 7 7 0 3 |  |  |  |  | \％ |  |  |  | $\pm$ $\pm$ $\square$ $\square$ |  |  |

－－－Indicates no $3^{\text {rd }}$ transmission sent as message 000

| $\begin{aligned} & \hline \text { Day / } \\ & \text { Date } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Time } \\ \text { (UTC) } \end{gathered}$ | $\begin{gathered} \text { Freq } \\ \text { (kHz) } \end{gathered}$ | $\begin{gathered} \text { Time } \\ \text { (UTC) } \end{gathered}$ | $\begin{gathered} \hline \text { Freq } \\ \text { (kHz) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Time } \\ \text { (UTC) } \end{gathered}$ | $\begin{gathered} \text { Freq } \\ (\mathbf{k H z}) \end{gathered}$ | ID | Decode Key | $\begin{aligned} & \hline \text { Grp } \\ & \text { No. } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sat 15 | None | Found |  |  |  |  |  |  |  |
| Sun 16 | 1830 | 8192^ | 1850 | 7692^ | 1910 | 6792 | 167 | 739 | 79 |
| Mon 17 | 0500 | 4638 | 0520 | 5738 | 0540 | --- | 678 | 000 |  |
|  | 0530 | 4457 | 0550 | 5157 | 0610 | --- | 417 | 000 |  |
|  | 0600 | 4768** | 0620 | 5868** | 0640 | --- | 783 | 000 |  |
|  | 1900 | 9176^ | 1920 | 7931^ | 1940 | 6904 | 257 | 2640 | 34 |
|  | 2000 | 9176^ | 2020 | 7931^ | 2040 | 6904 | 257 | 7863 | 55 |
| Tue 18 | 0440 | 4443 | 0509* | 5043 | 0539* | 5843 | 408 | 923/ | 141/ |
|  | M12a |  |  |  |  |  | 408 | 358 | 183 |
|  | 0510 | 5888 | 0530 | 6952 | 0550 | --- | 897 | 000 |  |
|  | 2200 | 5938 | 2220 | 4938 | 2240 | 4038 | 138 | 950 | 87 |
| Wed 19 | 0500 | 4638 | 0520 | 5738 | 0540 | --- | 678 | 000 |  |
|  | 1800 | 8047^ | 1820 | 6802 | 1840 | 5788 | 463 | 4341 | 77 |
|  | 1830 | 8192^ | 1850 | 7692^ | 1910 | 6792 | 167 | 955 | 199 |
|  | 2200 | 5361 | 2220 | 4461 | 2240 | --- | 340 | 000 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Thu 20 | 0440 | 4443 | 0505* | 5043 | 0531* | 5843 | 408 | 985/ | 117/ |
|  | M12a |  |  |  |  |  | 408 | 923 | 141 |
|  | 0510 | 5888 | 0530 | 6952 | 0550 | --- | 897 | 000 |  |
|  | 0730 | 5284^ | 0750 | 5784^ | 0810 | --- | 277 | 000 |  |
|  | 2000 | 9176^ | 2020 | 7931^ | 2040 | 6904 | 257 | 7152 | 40 |
|  |  |  |  |  |  |  |  |  |  |
| Fri 21 | 0700 | 9138 | 0720 | 10538 | 0740 | 12138 | 138 | 950 | 87 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |


| $\begin{aligned} & \text { Day / } \\ & \text { Date } \end{aligned}$ | $\begin{gathered} \text { Time } \\ \text { (UTC) } \end{gathered}$ | $\begin{gathered} \text { Freq } \\ \text { (kHz) } \end{gathered}$ | $\begin{gathered} \text { Time } \\ \text { (UTC) } \end{gathered}$ | Freq <br> (kHz) | $\begin{gathered} \text { Time } \\ \text { (UTC) } \end{gathered}$ | $\begin{gathered} \text { Freq } \\ \text { (kHz) } \end{gathered}$ | ID | Decode Key | $\begin{aligned} & \hline \text { Grp } \\ & \text { No. } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sat 22 | None | Found |  |  |  |  |  |  |  |
| Sun 23 | 1830 | 8192^ | 1850 | 7692^ | 1910 | 6792 | 167 | 955 | 199 |
| Mon 24 | 0500 | 4638 | 0520 | 5738 | 0540 | 6838 | 678 | 417 | 217 |
|  | 0530 | 4457 | 0550 | 5157 | 0610 | --- | 417 | 000 |  |
|  | 0600 | 4768** | 0620 | 5868** | 0640 | --- | 783 | 000 |  |
|  | 1900 | NH | 1920 | NH | 1940 | 6904 | 257 | 2070 | 63 |
|  | 2000 | NH | 2020 | NH | 2040 | 6904 | 257 | 5638 | 85 |
| Tue 25 | 0440 | 4443 | 0508* | 5043 | 0537* | 5843 | 408 | 184/ | 193 |
|  | M12a |  |  |  |  |  | 408 | 985 | 117 |
|  | 0510 | 5888 | 0530 | 6952 | 0550 | --- | 897 | 000 |  |
|  | 2200 | 5938 | 2220 | 4938 | 2240 | 4038 | 138 | 371 | 97 |
| Wed 26 | 0500 | 4638 | 0520 | 5738 | 0540 | 6838 | 678 | 417 | 217 |
|  | 1500 | 7697^ | 1520 | 6797 | 1540 | 5397 | 157 | 485 | 177 |
|  | 1800 | 8047 | 1820 | 6802 | 1840 | 5788 | 463 | 1790 | 83 |
|  | 1830 | 8192^ | 1850 | 7692^ | 1910 | 6792^ | 167 | 9336 | 141 |
|  | 2200 | 5361 | 2220 | 4461 | 2240 | -- - | 340 | 000 |  |
| Thu 27 | 0440 | 4443 | 0500 | 5043 | 0520 | 5843 | 408 | 439 | 193 |
|  | 0510 | 5888 | 0530 | 6952 | 0550 | --- | 897 | 000 |  |
|  | 0730 | 5284 | 0750 | 5784 | 0810 | --- | 277 | 000 |  |
|  | 2000 | 9176^ | 2020 | 7931^ | 2040 | 6904 | 257 | 8222 | 53 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Fri 28 | 0700 | 9138 | 0720 | 10538 | 0740 | 12138 | 138 | 371 | 97 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |


| 을 | 9 |  | $\stackrel{\text { N }}{ }$ |  | ¢ $\infty$ | $\infty$ |  | 9 |  | 8 | $\stackrel{\text { N }}{7}$ |  | $\infty$ | $\underset{7}{7}$ | 9 | M | $\bigcirc$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 䉼苍 | $\stackrel{\sim}{\square}$ | $\left[\begin{array}{l} 0 \\ 0 \\ 0 \end{array}\right.$ | $\left\lvert\, \begin{aligned} & \underset{\sim}{2} \\ & \hline \end{aligned}\right.$ | $\left\|\begin{array}{l} 0 \\ 0 \\ 0 \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \hat{N} \\ \infty \\ \underset{n}{2} \end{gathered}\right.$ | $\underset{\sim}{\mathbf{~}}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\stackrel{\Omega}{\square}$ | $\left\|\begin{array}{l} 0 \\ 0 \\ 0 \end{array}\right\|$ | $\begin{aligned} & \tilde{0} \\ & \vdots \\ & \hline \end{aligned}$ | ৷্লি |  | $\left\|\begin{array}{c} \mathrm{O} \\ \mathrm{~N} \end{array}\right\|$ | $\mid \underset{\sim}{9}$ | － | ¢ | $\stackrel{\text { \％}}{\text { \％}}$ |  |
| $\theta$ | $\begin{aligned} & 0 \\ & \infty \\ & \infty \end{aligned}$ | $\infty$ | $\mid \underset{\sim}{\infty}$ | $\underset{\sim}{\infty}$ | $\begin{array}{\|c\|} \hline 0 \\ \hline \end{array}$ | 7 | $\begin{array}{\|l\|} \hline 0 \\ \hline \end{array}$ | $\begin{aligned} & 0 \\ & \infty \\ & \infty \end{aligned}$ | $\infty$ | $\stackrel{\mathrm{N}}{\mathrm{~N}}$ | $\underset{\sim}{\infty}$ |  | $\stackrel{7}{7}$ | か | か | in | へ |  |
| 운 | $\left\|\begin{array}{c} N \\ N \\ N \end{array}\right\|$ |  | $\left\|\begin{array}{l} \infty \\ \underset{O}{O} \\ 寸 \end{array}\right\|$ |  | $\begin{array}{\|c\|} \infty \\ \infty \\ i \\ i \end{array}$ | $\begin{aligned} & \delta \\ & \stackrel{\delta}{\infty} \end{aligned}$ | $\begin{aligned} & \vdots \\ & \vdots \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \hat{N} \end{aligned}$ | $\begin{array}{\|l} 1 \\ \vdots \\ \vdots \end{array}$ | S | $\left\lvert\,\right.$ |  | $\begin{array}{\|c\|} \substack{0 \\ \stackrel{0}{\infty} \\ \hline} \\ \hline \end{array}$ | $\stackrel{\underset{\sim}{\mathrm{T}}}{\mathrm{G}}$ |  | ¢ |  |  |
|  | $\left\lvert\, \begin{aligned} & \text { N } \\ & \text { Non } \end{aligned}\right.$ | $\begin{aligned} & \circ \\ & \text { in } \\ & 0 \end{aligned}$ | $\mid \underset{\sim}{\underset{N}{\mathrm{~N}}}$ | $\begin{aligned} & 9 \\ & \text { 영 } \end{aligned}$ | $\left\|\begin{array}{c} 9 \\ 0 \\ 0 \end{array}\right\|$ | $\stackrel{\text { 극 }}{ }$ | $\stackrel{\substack{\mathrm{N}}}{\mathrm{~N}}$ | 잉 | 융 | $\underset{\sim}{\mathrm{O}}$ | $\left\lvert\, \begin{gathered} 9 \\ \mathrm{t} \\ \hline \end{gathered}\right.$ |  | $\stackrel{0}{9}$ | $\begin{array}{\|c} 9 \\ 40 \\ \hline 0 \end{array}$ | ¢ | $\stackrel{\text { ¢ }}{7}$ |  |  |
|  | $\begin{array}{\|c} N \\ N \\ \hline \end{array}$ | $\left\|\begin{array}{l} \infty \\ \infty \\ \infty \end{array}\right\|$ | $\left\|\begin{array}{c} \infty \\ \underset{\sim}{\mathrm{O}} \end{array}\right\|$ | $\mid \underset{\substack{\mid c}}{\mid}$ | $\left\|\begin{array}{c} \mathbb{N} \\ 0 \\ 0 \\ \mid \end{array}\right\|$ | $\begin{aligned} & \text { ో} \\ & \text { సे } \end{aligned}$ | $\left\|\begin{array}{c} \underset{\sim}{2} \\ \text { q} \end{array}\right\|$ | $\stackrel{N}{\mathrm{~N}}$ | $\left\|\begin{array}{c} < \\ \infty \\ \infty \\ \infty \end{array}\right\|$ | $\frac{\stackrel{八}{N}}{\substack{n}}$ | $\begin{array}{\|c} \infty \\ 0 \\ \hline 0 \\ \hline 0 \end{array}$ |  | $\left\lvert\, \begin{gathered} \substack{0 \\ \stackrel{\rightharpoonup}{\alpha} \\ \vdots} \end{gathered}\right.$ | $\left\|\begin{array}{c} \underset{8}{8} \\ \hline 0 \end{array}\right\|$ | － | হু | H |  |
|  | 응 | N్రి | $\underset{\mathrm{N}}{\mathrm{~N}}$ | $\begin{array}{\|c} 0 \\ N \\ 0 \end{array}$ | $\left\lvert\, \begin{gathered} \text { 잉 } \\ \infty \\ \hline \end{gathered}\right.$ | $\begin{aligned} & 0 \\ & \stackrel{0}{0} \\ & -1 \end{aligned}$ | 으N | 응 | 苞 | Nì | $\stackrel{\rightharpoonup}{\mathrm{N}}$ |  | $\begin{aligned} & \mathrm{O} \\ & \stackrel{0}{\infty} \\ & \underset{\sim}{2} \end{aligned}$ | $\left\lvert\, \begin{gathered} \mathrm{N} \\ \mathrm{~N} \end{gathered}\right.$ | 잉 | － |  |  |
|  | $\left\|\begin{array}{c} \mathrm{N} \\ \mathbf{0} \\ \mathrm{~B} \end{array}\right\|$ | $\begin{aligned} & \mathbf{t} \\ & \hline \\ & \hline \end{aligned}$ | $\left\lvert\, \begin{gathered} \infty \\ \tilde{m} \\ \underset{n}{2} \end{gathered}\right.$ | $\begin{gathered} \underset{N}{N} \\ \stackrel{n}{2} \end{gathered}$ |  | $\begin{aligned} & \stackrel{6}{6} \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ | $\left\|\begin{array}{c} \underset{y}{\mathrm{y}} \\ \underset{\sim}{2} \end{array}\right\|$ | $\left\|\begin{array}{c} N \\ \underset{\sim}{0} \\ \mid \end{array}\right\|$ | $\begin{aligned} & \text { f} \\ & \hline \mathbf{0} \\ & \hline \end{aligned}$ |  | $\left\|\begin{array}{l} \infty \\ \underset{N}{n} \\ \end{array}\right\|$ | $\left\|\begin{array}{c} \text { 豆 } \\ 0 \\ 0 \end{array}\right\|$ | $\begin{aligned} & \text { S } \\ & \substack{0 \\ \hline \\ \hline} \end{aligned}$ | त | ＊ | ¢ |  |  |
|  | $\frac{9}{f}$ | 응 | $\|\underset{\underset{N}{\mathrm{~N}}}{\mid}\|$ | $\begin{array}{\|c} \circ \\ \hline i \mathrm{~h} \\ \hline \end{array}$ | $\left\|\begin{array}{c} 8 \\ 0 \\ \infty \end{array}\right\|$ | $\stackrel{\substack{0 \\ 0 \\ \hline \\ \hline}}{ }$ | $\begin{gathered} 8 \\ \underset{N}{2} \end{gathered}$ | $\begin{aligned} & i \\ & f \end{aligned}$ | $\left\lvert\, \begin{array}{\|c} 9 \\ \hline 130 \\ \hline \end{array}\right.$ | O- ০্ণ | $\begin{aligned} & \mathrm{O} \\ & \stackrel{\mathrm{O}}{\mathbf{0}} \end{aligned}$ | $\begin{array}{\|c} \stackrel{\rightharpoonup}{\mathbf{z}} \\ \underset{\mathrm{z}}{ } \end{array}$ | $\begin{aligned} & \underset{\sim}{2} \\ & \underset{\sim}{2} \end{aligned}$ | $0$ | $\begin{array}{\|l\|} \hline 8 \\ 0 \\ \hline \end{array}$ | － |  |  |
|  | $\left(\begin{array}{c} -1 \\ \cline { 1 - 2 } \\ \cline { 1 - 1 } \end{array}\right.$ |  |  | $\left\|\begin{array}{l} N \\ 0 \\ 0 \\ 3 \end{array}\right\|$ |  |  |  | $\left.\begin{gathered} m \\ z \\ \end{gathered} \right\rvert\,$ |  |  | $\left\|\begin{array}{c} \checkmark \\ \overrightarrow{y y} \\ \vec{y} \end{array}\right\|$ | $\left\|\begin{array}{l} n \\ \stackrel{n}{n} \\ n \end{array}\right\|$ | $\left\|\begin{array}{c} 0 \\ 5 \\ 5 \\ n \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & N \\ & \tilde{0} \\ & \end{aligned}\right.$ |  |  |  |  |


| 氙这 | הิ |  | $\stackrel{9}{-1}$ | $\stackrel{m}{7}$ | $\underset{A}{N}$ | $\bigcirc$ | $\approx: 9$ | $\left.\frac{\underset{\lambda}{2}}{\vec{n}} \right\rvert\,$ | N |  | $\cdots$ | $\underset{\sim}{0}$ |  | $\stackrel{3}{\sim}$ | $\infty$ | 8 | － | $\theta$ | ภ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 或 | $\left\lvert\, \begin{gathered} \wedge \\ \stackrel{N}{\infty} \\ \infty \end{gathered}\right.$ | O | 人̀ | $\stackrel{\ominus}{9}$ | $\left\|\begin{array}{l} \infty \\ \propto \\ \end{array}\right\|$ | $\underset{\substack{0 \\ 0 \\ \hline}}{2}$ | $\stackrel{\sim}{c}$ | $\begin{array}{\|l\|} \hline 0 \\ i 8 \end{array}$ | $\stackrel{\rightharpoonup}{8}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{array}{\|c} \hline 8 \\ 0 \\ R \end{array}$ | $\hat{y}$ |  | $\left\lvert\, \begin{aligned} & \text { オे } \\ & \infty \end{aligned}\right.$ | － | 4 | ¢ | O | N |  |
| O | $\left\lvert\, \begin{aligned} & 0 \\ & \infty \\ & \infty \end{aligned}\right.$ | $\mathfrak{\infty}$ | $\underset{\sim}{\infty}$ | $\underset{\sim}{\infty}$ | $\|\underset{N}{J}\|$ | $\underset{y}{20}$ | 가강 | $\begin{gathered} 0 \\ \infty \\ \infty \end{gathered}$ | $\left\lvert\, \begin{gathered} \infty \\ \infty \\ \infty \end{gathered}\right.$ | $\infty$ | $\stackrel{N}{\mathrm{~N}}$ | $\underset{\sim}{\infty}$ |  | $\stackrel{7}{7}$ | $\underset{\sim}{\infty}$ | ¢ | ন | へ | N |  |
| 号荷 | $\left\|\begin{array}{l} \grave{\Sigma} \\ \hat{N} \\ \end{array}\right\|$ |  | $\left\|\begin{array}{c} \infty \\ \tilde{y} \\ \dot{q} \end{array}\right\|$ | $\underset{\sim}{\underset{\sim}{7}}$ | $\left\|\begin{array}{c} \hat{2} \\ \hat{N} \end{array}\right\|$ | $\begin{aligned} & \infty \\ & \infty \\ & i n \\ & \hline \end{aligned}$ | $\begin{array}{l\|l} \substack{0 \\ \underset{\infty}{2} \\ \hline \\ \hline} \end{array}$ | $\left\|\begin{array}{l} \mathrm{N} \\ \hat{N} \end{array}\right\|$ |  |  | $\begin{gathered} 0 \\ 0 \\ 0 \end{gathered}$ | $\begin{aligned} & \infty \\ & \underset{\sim}{\boldsymbol{N}} \\ & \hline \end{aligned}$ |  | $\left\lvert\, \begin{gathered} \substack{0 \\ \vdots \\ \vdots \\ \hline} \end{gathered}\right.$ | $\begin{aligned} & \stackrel{\leq}{\Omega} \\ & \underset{\sim}{\top} \end{aligned}$ | $\cdots$ | $\begin{array}{\|c} n \\ y \\ \hline \end{array}$ | $\begin{aligned} & 7 \\ & 0 \\ & 0 \end{aligned}$ | $\left\lvert\, \begin{aligned} & \mathrm{O} \\ & \hline 0 \\ & \hline \end{aligned}\right.$ |  |
| 苞 | $\left\lvert\, \begin{array}{\|c} \text { Nin } \\ \text { N } \end{array}\right.$ | $3$ | $\begin{gathered} \underset{\sim}{\underset{N}{2}} \end{gathered}$ | $\begin{aligned} & \text { g } \\ & \text { 合 } \end{aligned}$ | 운 | $\begin{gathered} 9 \\ \infty \\ -1 \end{gathered}$ | $\stackrel{i}{9} \underset{\sim}{9}$ | $\begin{aligned} & * \\ & \text { 答 } \\ & \hline \end{aligned}$ |  | 垥 | $\begin{gathered} \mathrm{o} \\ \substack{n} \end{gathered}$ | $\left\lvert\, \begin{aligned} & 9 \\ & \hline 0 \end{aligned}\right.$ |  | $\stackrel{0}{7}$ | $\begin{aligned} & 9 \\ & \text { 名 } \\ & \hline \end{aligned}$ |  | $\begin{gathered} * \\ \stackrel{*}{\mathbf{O}} \\ \hline \end{gathered}$ | 9 | $\left\|\begin{array}{c} \mathrm{o} \\ \underset{\sim}{c} \end{array}\right\|$ |  |
| 哥苞 | $\left\|\begin{array}{c} \grave{N} \\ \underset{\Delta}{\mathrm{O}} \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & c_{1} \\ & \infty \\ & \end{aligned}\right.$ | $\left\|\begin{array}{c} \infty \\ \underset{子}{子} \end{array}\right\|$ | $\underset{O}{\square} \mid$ | $\left\|\begin{array}{c} \hat{N} \\ \hat{0} \end{array}\right\|$ | $\mathfrak{N}$ | $\begin{array}{l\|l} \substack{c \\ \stackrel{\rightharpoonup}{2} \\ \stackrel{\rightharpoonup}{\mathrm{O}} \\ \hline} \end{array}$ | $\stackrel{N}{\mathrm{~N}}$ |  | $\begin{aligned} & \mathfrak{N} \\ & \infty \\ & \infty \end{aligned}$ |  | $0 \begin{gathered} 0 \\ \\ 0 \\ \hline \end{gathered}$ |  | $\begin{gathered} 6 \\ \hat{c} \\ \kappa \end{gathered}$ | \％ | $\xrightarrow{*}$ | ¢ | হু | ＂／ |  |
|  | 앙 | $3 \text { No }$ | $\underset{\sim}{\mathrm{N}}$ | $\begin{array}{\|c} 2 \\ \mathrm{~N} \\ \hline \end{array}$ | $\left\|\begin{array}{c} \underset{N}{N} \\ \underset{\sim}{2} \end{array}\right\|$ | O－ | $\stackrel{\leftrightarrow}{0} \underset{\sim}{\infty}$ | $\stackrel{*}{2}$ |  | Rిల్గి |  | $\stackrel{\rightharpoonup}{\mathrm{N}}$ | $\left\|\begin{array}{c} 0 \\ 0 \\ 0 \\ i \end{array}\right\|$ | $\stackrel{\circ}{\circ}$ | N |  | $\begin{aligned} & \text { 巻 } \\ & \end{aligned}$ | 익 | 이N |  |
|  | $\left\|\begin{array}{c} \grave{\Sigma} \\ \underset{\sim}{\infty} \\ \underset{\sim}{2} \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & \substack{0 \\ 0 \\ \hline 0 \\ \hline} \end{aligned}\right.$ | $\left\|\begin{array}{c} \infty \\ \tilde{n} \\ \dot{n} \end{array}\right\|$ | $\underset{N}{\sim}$ | $\begin{aligned} & 2 \\ & 0 \\ & 1 \end{aligned}$ |  |  | $\begin{array}{\|c} N \\ \underset{\sim}{N} \\ \hline \end{array}$ |  |  |  | $\left\|\begin{array}{l} \infty \\ \underset{\sim}{m} \\ \hline \end{array}\right\|$ | $\left\|\begin{array}{l} \dot{z} \\ \dot{0} \\ \dot{0} \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \substack{0 \\ 0 \\ 0 \\ 0} \end{gathered}\right.$ | ה | \％ | 俞 | 合 | e |  |
|  | 导 | 옹 | $\begin{array}{\|c} \mathrm{O} \\ \text { N} \end{array}$ | $\begin{aligned} & 8 \\ & \hline 2 \\ & \text { 잉 } \end{aligned}$ | $\begin{gathered} 8 \\ 0 \\ 0 \\ \hline \end{gathered}$ | $\underset{\sim}{8}$ | $\underset{\sim}{\infty} \underset{\sim}{\infty}$ | $\frac{g}{d}$ | $\underset{\sim}{N}$ |  |  | $\begin{aligned} & \mathrm{O} \\ & \mathrm{O} \\ & \hline \end{aligned}$ | $\|\stackrel{\rightharpoonup}{\mathrm{Z}}\|$ | $\stackrel{0}{0}$ | io | ก | $$ | $8$ | O- |  |
| $\left\|\begin{array}{l} \text { 㐫 } \\ \stackrel{\pi}{0} \\ \end{array}\right\|$ | $\left\|\begin{array}{c} \infty \\ g \\ \underline{y} \end{array}\right\|$ |  |  | 0 0 0 3 |  |  |  | O - $\frac{7}{7}$ |  |  |  | I | $N$ $\sim$ $\sim$ $\sim$ | （n | \＃ |  |  |  |  |  |

[^0]| Day / Date | $\begin{gathered} \text { Time } \\ \text { (UTC) } \\ \hline \end{gathered}$ | Freq <br> (kHz) | $\begin{gathered} \text { Time } \\ \text { (UTC) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Freq } \\ (\mathrm{kHz}) \end{gathered}$ | $\begin{aligned} & \hline \text { Time } \\ & \text { (UTC) } \end{aligned}$ | $\begin{gathered} \text { Freq } \\ (\mathrm{kHz}) \end{gathered}$ | ID | Decode Key | $\begin{aligned} & \hline \text { Grp } \\ & \text { No. } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tue 15 | 0440 | 5872 | 0500 | 6772 | 0520 | 7672 | 876 | 576 | 233 |
|  | 0510 | 6964^ | 0530 | 7882 | 0550 | --- | 983 | 000 |  |
|  | 2200 | 5938 | 2220 | 4938 | 2240 | 4038 | 238 | 1268 | 197 |
|  |  |  |  |  |  |  |  |  |  |
| Wed 16 | 0500 | 5291 | 0520 | 6891 | 0540 | 7491 | 284 | 734 | 87 |
|  | 1500 | 7697^ | 1531* | 6797 | 1403* | 5397 | 214 | 469 | 381 |
|  | 1800 | 8047^ | 1820 | 6802^ | 1840 | 5788 | 463 | 1134 | 89 |
|  | 1830 | 10476^ | 1850 | 9276^ | 1910 | 8176^ | 421 | 5?4 | 119 |
|  | 2200 | 5429 | 2220 | 4629 | 2240 | --- | 460 | 000 |  |
| Thu 17 | 0440 | 5872 | 0514* | 6772 | 0548* | 7672 | 876 | 1381 | $163 /$ |
|  | M12a |  |  |  |  |  | 876 | 576 | 233 |
|  | 0510 | 6964^ | 0530 | 7882^ | 0550 | --- | 983 | 000 |  |
|  | 0730 | 5884 | 0750 | 6884 | 0810 | --- | 888 | 000 |  |
|  | 1900 | 10343^ | 1920 | 9264^ | 1940 | 8116 | 124 | 8802 | 63 |
|  | 2000 | 9176^ | 2020 | 7931^ | 2040 | 6904 | 257 | 9174 | 56 |
|  |  |  |  |  |  |  |  |  |  |
| Fri 18 | 0700 | 9338 | 0720 | 10638 | 0740 | 12138 | 238 | 1268 | 197 |
|  |  |  |  |  |  |  |  |  |  |
| Sat 19 | Not | Monit | -ored |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Sun 20 | 1830 | 10476 | 1850 | 9276 | 1910 | 8176 | 421 | 534 | 119 |
|  |  |  |  |  |  |  |  |  |  |
| Mon 21 | 0500 | 5291 | 0520 | 6891 | 0540 | --- | 284 | 000 |  |
|  | 0530 | 4617 | 0550 | 5317 | 0610 | --- | 638 | 000 |  |
|  | 0600 | 5479** | 0620 | 6879** | 0640 | --- | 480 | 000 |  |
|  | 1300 | 9223^ | 1320 | 8193^ | 1340 | 7463 | 214 | 267 | 193 |
|  | 1900 | 9176^ | 1920 | 7931^ | 1940 | 6904 | 257 | 498 | 84 |
|  | 2000 | 9176^ | 2020 | 7931^ | 2040 | 6904 | 257 | 7734 | 51 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |


Thanks to Paul for finding ID 888 sched at 0730z Thu

Family 1A History and March predictions - 5th March 2011

| Station <br> Day | time <br> (utc) | $2010$ <br> December | 2011 <br> January | $2011$ <br> February | $2011$ <br> March | $\begin{gathered} \hline \text { ID } \\ \text { Dec } \end{gathered}$ | $\begin{array}{\|l\|} \hline \text { ID } \\ \text { Jan } \\ \hline \end{array}$ | ID <br> Feb | ID <br> Mar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G06 mon | 08.00 | 5463 | 5463 | 5463 | 6774 | 215 | 215 | 215 | 215 |
| G06 mon | 17.00 | 3514 | 3854 | 3854 | 4457 | 892 | 439 | 439 | 439 |
| G06 mon | 18.00 | 4458 | 4587 | 4587 | 4864 | 892 | 439 | 439 | 439 |
| S06 mon | 19.00/05 | 3192/3838 | 3192/3838 | 3192/3838 | 5784/5127 | 349 | 349 | 349 | 349 |
| S06 mon | 21.15 | 6835 | 6920 | 6965 | 7680 | 632 | 121 | 684 | 492 |
| S06 mon | 22.15 | 5185 | 5175 | 5320 | 5395 | 632 | 121 | 684 | 492 |
| M14 tues | 08.00 |  |  | 5895 |  |  |  | 178 |  |
| S06 tues | 18.00 | 3645 | NH | 3645 |  | 617 |  | 617 |  |
| M14 tues | 18.20 | 4636 | 4636 | 4636 | 5945 | 186 | 186 | 186 | 346 |
| G06 wed | 12.00 |  | 4778 |  |  | 892 | 439 | 439 | 439 |
| G06 wed | 13.00 | 4026 | 4039 |  |  | 892 | 439 | 439 | 439 |
| S06 wed | 18.00/05 | 3540/3160 | 3540/3160 | 3540/3160 | 5735/5070 | 471 | 471 | 471 | 471 |
| M14 wed | 19.20 | 4761 | 4761 | 4761 | 5463 | 748 | 748 | 748 | 537 |
| E06 wed | 19.20 | 3670 | 4036 | 4036 |  | 743 | 829 | 829 | 829 |
| S06 wed | 19.20 |  |  | 4528 |  |  |  | 632 |  |
| S06 wed | 19.30/05 |  |  |  |  | 405 | 366 | 366 | 366 |
| S06 wed | 20.00/05 |  |  |  |  | 864 | 134 | 134 | 134 |
| E06 thur | 06.00 | 13/14 mhz |  |  |  | 923 | 139 | 702 |  |
| E06 thur | 07.00 | 15940 | 15810 | 17470 |  | 923 | 139 | 702 |  |
| G06 thur | 18.30 | 4519 | 4519 | 4519 | 5946 | 271 | 271 | 271 | 579 |
| S06 thur | 19.00/05 | 3192/3838 | 3192/3838 | 3192/3838 | 5784/5127 | 349 | 349 | 349 | 349 |
| E06 thur | 20.30 | 4836 | 4836 | 4836 | 5186 | 321 | 321 | 321 | 891 |
| G06 fri | 19.30 | 4792 | 4792 | 4792 | 5442 | 436 | 436 | 436 | 947 |
| M14 fri | 20.00 | 3825 | NH | NH |  | 724 | 724 |  |  |
| M14 fri | 21.00 | 4470 | NH | NH |  | 724 | 724 |  |  |
| E06 fri | 21.30 | 4760 | 4760 | 4760 | 5197 | 472 | 472 | 472 | 634 |
| E06 sat | 01.30 | 5796 | 5783 | 5846 | 5879 | 759 | 759 | 759 | 759 |
| E06 sat | 02.30 | 4516 | 4489 | 4817 | 4923 | 759 | 759 | 759 | 759 |
| M14 sat | 09.00 |  |  | 5561 | 5561 |  |  | 171 | 171 |
| E06 sat | 12.15 | 10423 |  |  |  | O58 |  |  |  |
| E06 sat | 13.15 | 8167 |  |  |  | O58 |  |  |  |
| S06 sat | 16.00/05 | 6803/5787 | 7728/6788 | 7728/6788 | ? / 7612 | 864 | 134 | 134 | 134 |
| S06 sat | 19.30/35 | 3192/3733 | 3209/3842 | 3209/3842 | ? / 4628 | 405 | 366 | 366 | 366 |
| S06 sat | 20.30 |  | 4859 | 4859 | 6791 |  | 703 | 703 | 703 |
| G06 sat | 20.30/35 | 5830/4853 |  |  |  | 364 |  |  |  |
| S06 sat | 21.30 |  | 4024 | 4024 | 5854 |  | 703 | 703 | 703 |
| E06 sun | 12.20 | 5806 | NH | 5913 |  | 743 | 829 | 829 | 829 |

week
every
$1 \& 2$
$1 \& 2$
every
$2 \& 4$
$2 \& 4$
2
$1 \& 2$
$2 \& 4$
$1 \& 2$
$1 \& 2$
every
$2 \& 4$
2
2
Sat R
Sat R
every
every
2 \& 4
every
$1 \& 3$
$2 \& 4$
$1 \& 3$
$1 \& 3$
$1 \& 3$
every
every
every

NH = Not heard
$\mathrm{R}=$ repeat if there is a message on Saturday

## E07 Regular Schedules

## Monday

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1900 |  |  |  | 12108 | 14812 | 15824 | 14812 | 14378 | 12108 | 10243 |  |  |
| 1920 |  |  |  | 10708 | 13412 | 14624 | 13412 | 13458 | 10708 | 9243 |  |  |
| 1940 |  |  |  | 9208 | 11512 | 13524 | 11512 | 10958 | 9208 | 7943 |  |  |
| 2000 | 6982 | 7724 | 9273 |  |  |  |  |  |  |  | 7724 | 7478 |
| 2020 | 5882 | 6924 | 7873 |  |  |  |  |  |  |  | 6924 | 6778 |
| 2040 | 5182 | 5824 | 6873 |  |  |  |  |  |  |  | 5824 | 5278 |

Tuesday

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0700 |  |  |  | 6941 | 7978 | 8127 | 8127 | 6941 | 6893 | 5782 |  |  |
| 0720 |  |  |  | 8041 | 9178 | 9327 | 9327 | 8041 | 7493 | 6982 |  |  |
| 0740 |  |  |  | 9241 | 9978 | 10127 | 10127 | 9241 | 8193 | 7582 |  |  |
| 0800 | 5416 | 5867 | 6893 |  |  |  |  |  |  |  | 5867 | 5234 |
| 0820 | 5816 | 6767 | 7493 |  |  |  |  |  |  |  | 6767 | 5734 |
| 0840 | 6916 | 7367 | 8193 |  |  |  |  |  |  |  | 7367 | 6834 |

## Wednesday

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1700 |  |  |  | 12123 | 13388 | 13468 | 13468 | 13388 | 12223 | 11454 |  |  |
| 1720 |  |  |  | 10703 | 12088 | 12141 | 11454 | 12088 | 11062 | 9423 |  |  |
| 1740 |  |  |  | 8123 | 10118 | 10436 | 10126 | 10504 | 10116 | 8123 |  |  |
| 1800 | 6774 | 7697 | 9923 |  |  |  |  |  |  |  | 8183 | 6982 |
| 1820 | 5836 | 6863 | 9068 |  |  |  |  |  |  |  | 6982 | 5836 |
| 1840 | 4893 | 5938 | 7697 |  |  |  |  |  |  |  | 5938 | 4938 |
| 1900 |  |  |  | 12108 | 14812 | 15824 | 14812 | 14378 | 12108 | 10243 |  |  |
| 1920 |  |  |  | 10708 | 13412 | 14624 | 13412 | 13458 | 10708 | 9243 |  |  |
| 1940 |  |  |  | 9208 | 11512 | 13524 | 11512 | 10958 | 9208 | 7943 |  |  |
| 2000 | 6982 | 7724 | 9273 |  |  |  |  |  |  |  | 7724 | 7478 |
| 2020 | 5882 | 6924 | 7873 |  |  |  |  |  |  |  | 6924 | 6778 |
| 2040 | 5182 | 5824 | 6873 |  |  |  |  |  |  |  | 5824 | 5278 |
| 2000 |  |  |  | 8173 | 8173 | 8173 | 8173 | 8173 | 8173 | 5864 |  |  |
| 2020 |  |  |  | 7473 | 7473 | 7473 | 7473 | 7473 | 7473 | 5164 |  |  |
| 2040 |  |  |  | 5773 | 5773 | 5773 | 5773 | 5773 | 5773 | 4564 |  |  |
| 2100 | 5864 | 5864 | 5864 |  |  |  |  |  |  |  | 5864 | 5864 |
| 2120 | 5164 | 5164 | 5164 |  |  |  |  |  |  |  | 5164 | 5164 |
| 2140 | 4564 | 4564 | 4564 |  |  |  |  |  |  |  | 4564 | 4564 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Thursday

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0430 |  |  |  | 7437 | 7437 | 7437 | 7437 | 7437 | 7437 | 5146 |  |  |
| 0450 |  |  |  | 8137 | 8137 | 8137 | 8137 | 8137 | 8137 | 5846 |  |  |
| 0510 |  |  |  | 9137 | 9137 | 9137 | 9137 | 9137 | 9137 | 6846 |  |  |
| 0530 | 5146 | 5146 | 5146 |  |  |  |  |  |  |  | 5146 | 5146 |
| 0550 | 5846 | 5846 | 5846 |  |  |  |  |  |  |  | 5846 | 5846 |
| 0610 | 6846 | 6846 | 6846 |  |  |  |  |  |  |  | 6846 | 6846 |
| 0700 |  |  |  | 6941 | 7978 | 8127 | 8127 | 6941 | 6893 | 5782 |  |  |
| 0720 |  |  |  | 8041 | 9178 | 9327 | 9327 | 8041 | 7493 | 6982 |  |  |
| 0740 |  |  |  | 9241 | 9978 | 10127 | 10127 | 9241 | 8193 | 7582 |  |  |
| 0800 | 5416 | 5867 | 6893 |  |  |  |  |  |  |  | 5867 | 5234 |
| 0820 | 5816 | 6767 | 7493 |  |  |  |  |  |  |  | 6767 | 5734 |
| 0840 | 6916 | 7367 | 8193 |  |  |  |  |  |  |  | 7367 | 6834 |
| 2010 |  |  |  | 9387 | 11539 | 12213 | 11539 | 10753 | 9387 | 7516 |  |  |
| 2030 |  |  |  | 7526 | 10547 | 10714 | 10547 | 9147 | 7526 | 5836 |  |  |
| 2050 |  |  |  | 5884 | 9388 | 9347 | 9388 | 7637 | 5884 | 4497 |  |  |
| 2110 | 6777 | 6777 | 7516 |  |  |  |  |  |  |  | 6777 | 6777 |
| 2130 | 5449 | 5449 | 5836 |  |  |  |  |  |  |  | 5449 | 5449 |
| 2150 | 4483 | 4483 | 4497 |  |  |  |  |  |  |  | 4483 | 4483 |

## Sunday

|  | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1700 |  |  |  | 12123 | 13388 | 13468 | 13468 | 13388 | 12223 | 11454 |  |  |
| 1720 |  |  |  | 10703 | 12088 | 12141 | 11454 | 12088 | 11062 | 9423 |  |  |
| 1740 |  |  |  | 8123 | 10118 | 10436 | 10126 | 10118 | 10116 | 8123 |  |  |
| 1800 | 6774 | 7697 | 9923 |  |  |  |  |  |  |  | 8183 | 6982 |
| 1820 | 5836 | 6863 | 9068 |  |  |  |  |  |  |  | 6982 | 5836 |
| 1840 | 4893 | 5938 | 7697 |  |  |  |  |  |  |  | 5938 | 4938 |

The hundredths digit in each frequency trio gives the ID i.e. $677458364893=788$

Revised $3^{\text {rd }}$ November 2010


| (1) |  |  |  |  |  | wk | $\frac{\text { Stn }}{\text { G06 }}$ | $\frac{\text { Fam }}{01 \mathrm{~A}}$ | JankHz , ID,, 5363 |  | MarkHz, ID, $\ldots$6774215, search | Apr <br> kHz, ID, $\ldots$ <br> 6774 <br> 215, | General Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| x |  |  |  |  | 0800 |  |  |  |  |  |  |  | since 07/10, last $\log 02 / 11$ |
| x |  |  |  |  | 1700 |  | G06 | 01A | $\begin{gathered} 3854 \\ 439 \end{gathered}$ | $\begin{array}{\|c\|} \hline 3854 \\ 439 \end{array}$ | 439 | 439 | ```since 04/10, last log 02/11 yearly changing id``` |
| x |  |  |  |  | 1800 |  | G06 | 01A | $\begin{array}{\|c} \hline 4587 \\ 439 \\ \hline \end{array}$ | $\begin{array}{\|c} 4587 \\ 439 \\ \hline \end{array}$ | 439 | 439 | since 05/09, last log 02/11 yearly changing id |
|  |  |  | x |  | 1830 | 2/4 | G06 | 01A | $\begin{gathered} 4519 \\ 271 \\ \hline \end{gathered}$ | $\begin{gathered} 4519 \\ 271 \\ \hline \end{gathered}$ | $\left[\begin{array}{c} 5935 \\ -579 \end{array}\right.$ | $\begin{gathered} 5935 \\ 579 \end{gathered}$ | since 05/01, last log 02/11 |
|  |  |  |  | $\times$ | 1930 | 2/4 | G06 | 01A | $\begin{gathered} 4792 \\ 436 \\ \hline \end{gathered}$ | $\begin{gathered} 4792 \\ 436 \\ \hline \end{gathered}$ | $\begin{aligned} & 5442 \\ & 947 \end{aligned}$ | $\begin{aligned} & 5442 \\ & 947 \end{aligned}$ | since 04/01, last log 02/11 rpt of Thu 1830 Z |
|  |  |  |  | $\times$ | 2030 (2035) | 1/3 | G06 | 01A | $\begin{aligned} & 5824 \\ & 364 \\ & \hline \end{aligned}$ | $\begin{gathered} 5824 \\ 364 \\ \hline \end{gathered}$ | $\begin{gathered} 8023 \\ 364 \\ \hline \end{gathered}$ | $\begin{aligned} & 8023 \\ & 364 \\ & \hline \end{aligned}$ | since 11/09, last $\log 12 / 10$ yearly changing id |



ID 480 now active on Monday/Weds at 0930/1000 and 1300/1330 using frequencies 9225/6810 and 8130/5765; may be on other days also. Goes 1 hour earlier end of March
ID 624 currently sending nulls on ?/?/6270/6770/7135/7650 at $1400+10$ etc

| $\underset{\sim}{Z}$ | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | 5883(P) |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 5910() |  |
|  |  |  |  |  |  | 5898(P) | 5800(S) |  |


| $\begin{aligned} & \text { Z } \\ & \sum_{K}^{0} \end{aligned}$ | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 4035() | 12180(SK) | 11435(SK) | 5883(P) |
|  |  |  |  | 6855(P) | 6768(S) | 13380(SK) | 11532(SK) |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 5898(P) | 5800(S) |  |


| $\underset{i}{5}$ | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 12120(SK) |  | 5883(P) |
|  |  |  |  |  |  | 13380(SK) |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 5898(P) | 5800(S) |  |


| $\frac{0}{3}$ | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 12120(SK) | 11435(SK) | 5800(SK) |
|  |  |  |  |  |  | 13380(SK) | 11532(SK) |  |
|  |  |  |  |  |  |  | 5898(SK)0630 |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 5810(P) | 5810(S) | 9153(P) |


|  | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 13380(SK) |  | 5883(P) |
|  |  |  |  |  |  | 12120(SK) |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 10445(P) | 11565(S) | 5898(P) | 5800(S) |  |


| 圧 | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4028(P) | 5417(S) |  |  | 12120(SK) | 11435(SK) | 5883(P) |
|  |  |  | 5135(?) |  |  | 13380(SK) | 11532(SK) |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 5898(P) | 5800(S) |  |
|  |  |  |  |  |  | 5810(P) | 5810(S) | 9153(P) |


| $\underset{k}{k}$ | 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4028(P) | 5135(S) |  |  |  | 11435(SK) | 5883(P) |
|  |  |  | 4028(?) |  |  |  | 11532(SK) |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 4028(?) |  |  |  |  |
|  |  |  |  | 5135(?) |  | 5898(P) | 5800(S) |  |


| $\underset{\sim}{z}$ | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5898(S) |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | 10432(P) | 9112(S) |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ${ }_{\text {K }}^{\text {Z }}$ | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|  | 5898(S) |  |  |  |  |  |  |  |
|  | 8186(SK) | 9063(SK) |  |  |  |  |  |  |
|  |  |  |  |  |  | 8096(P) | 8096(S) |  |
|  |  |  |  |  |  | 12116(P) | 12134(S) |  |
|  |  | 10432(P) | 9112(S) |  |  | 9505() |  |  |


| $\stackrel{y}{3}$ | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5898(S) |  | 8186(SK) |  |  |  |  |  |
|  | 8180(SK) | 8180(SK) | 7890(SK) |  |  |  |  |  |
|  |  | 5947(SK)0900 |  |  |  |  |  |  |
|  |  | 5930(SK)0930 |  |  |  |  |  |  |
|  |  |  |  |  |  | 12214(P) | 13374(S) |  |


| $\frac{0}{3}$ | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5800(SK) | 9040(P) | 9240(S) |  |  |  |  |  |
|  | 8186(SK) | 9063(SK) |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 10714(P) | 10857(S) |  |
|  | 9063(S) |  |  |  |  | 8096(P) | 8096(S) |  |


| 沾 | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5898(S) |  | 8186(SK) |  |  |  |  |  |
|  | 8180(SK) | 8180(SK) | 7890(SK) |  |  |  |  |  |
|  |  | 5947(SK)0900 |  |  |  |  | 15167(?) |  |
|  |  | 5930(SK)0930 |  |  |  | 12116(P) | 12134(S) |  |
|  |  |  |  |  |  | 9505() |  |  |


| 岸 | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5898(S) |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 8096(P) | 8096(S) |  |
|  |  |  |  |  |  | 12214(P) | 13374(S) |  |
|  | 9063(S) | 10432(P) | 9112(S) |  |  | 9505() |  |  |


| $\stackrel{E}{E}$ | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5898(S) | 9040(P) | 9240(S) |  |  |  |  |  |
|  | 8186(SK) | 9063(SK) |  |  |  |  |  |  |
|  |  | 5947(SK)0900 |  |  |  |  |  |  |
|  |  | 5930(SK)0930 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |


| 㤂 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |


| ${ }_{2}^{Z}$ | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6768（SK） |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 6785（P） | 7554（S） |  | 7519（P） | 8009（S） |
|  |  |  | 8097（P） | 8097（S） |  |  |  |  |


| $\underset{y}{1}$ | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6768（SK） |  |  |  |  |  |  |  |
|  |  |  |  | 12180（P） | 13380（S） |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 7526（P） | 8135（S） |
|  |  |  |  | 6785（P） | 7554（S） |  |  | 13380（？） |


| $\begin{aligned} & 0 \\ & 3 \\ & \hline \end{aligned}$ | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6768（SK） |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 6785（P） | 7554（S） |  | 7519（P） | 8009（S） |
|  |  |  | 8097（P） | 8097（S） |  | 6932（P） | 6854（S） |  |


| 号 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6768（SK） |  |  | 12180（P） | 13380（S） |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 8009（P） | 8135（S） |
|  |  |  |  | 6785（P） | 7554（S） | 6932（P） | 6854（S） |  |


| 爻 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6768（SK） |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 6785（P） | 7554（S） |  | 7519（P） | 8135（S） |
|  |  |  | 8097（P） | 8097（S） |  |  |  |  |


| E | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

## Notes：

Skeds in MCW mode indicated in shaded cell．
V2a skeds are indicated in italic fonts．
M8a skeds are indicated in normal fonts．
The primary or first sked is indicated with（ P ）．
The secondary，second or repeat sked is indicated with（S）．
All skeds normally begin on the hour．
Frequencies listed as（ ），denote primary or secondary sked not determined．
Frequencies listed without（），denotes a possible sked．
SK01 notes：At present SK01 seems to be using exclusively RDFT mode．
－－Updated March 6，2011—
Cuban Desk Contributors：
Barry＿BS3（Tennessee，USA）
＂dj＂westli1（California，USA）
Jon－FL（Florida，USA）
MS（Michigan，USA）
Westt1us（Florida，USA）


| XPA [MFSK-20 Russian Intelligence Multitone System] 10bd |  |  |  |
| :---: | :---: | :---: | :---: |
| Tue: $1.1400 \mathrm{z}: 5867 \mathrm{kHz} 2.1420 \mathrm{z}: 5467 \mathrm{kHz} 3.1440 \mathrm{z}: 4567 \mathrm{kHz}$ |  |  |  |
| Sun: 1.0800 z : nnnnkHz 2. 0820z: 9138 kHz 3. $0840 \mathrm{z}: 8038 \mathrm{kHz}$ |  |  |  |
| ID845 | Mode: USB [S |  |  |
|  | ID/msg/serial no/gc/dk/end grp |  |  |
| 02Sun | NRH |  |  |
| 04Tue | 84500003589000010000010140 | [2m26s] |  |
| 09 Sun | NRH |  |  |
| 11Tue | 84500003589000010000010140 | [2m26s] |  |
| 16Sun | NRH |  |  |
| 18Tue | 84500003589000010000010140 | [2m26s] | FN |
| 23Sun | 845100469001034052131677 | [3m28s] | Hans |
| $25 T$ ue | 845100469001034052131677 | [3m28s] | FN |
| 30Sun | 84500006740000010000010140 | [2m26s] |  |

January 2011

| XPA [MFSK-20 Russian Intelligence Multitone System] 10bd |  |  |
| :---: | :---: | :---: |
| 1.0700z: 9356kHz 2. 0720z: 10956kHz 3. 0740z: 12156kHz |  |  |
| ID391 | Mode: USB | [Tue/Fri] |
| ID/msg/serial no/gc/dk/end grp |  |  |
| 04Tue | 391100581001893081321723 | [4m20s] |
| 07Fri | 391100581001893081321723 | [4m20s] |
| 11Tue | 391100107002074907664620 | [4m33s] |
| 14Fri | 391100107002074907664620 | [4m33s] |
| 18Tue | 391100933001713055344741 | [4m11s] |
| 21Fri | 391100933001713055344741 | [4m11s] |
| 25Tue | 391100789002730482655333 | [5m14s] |
| 29Fri | 391100789002730482655333 | [5m14s] |

Schedule c 0700z
Very strong signals across the schedule, some propagational
effects noticed but all sigs strong.

XPA [MFSK-20 Russian Intelligence Multitone System] 10bd
 ID890 $\quad$ Mode: USB $\quad$ [Mon/Wed]

03Mon MISSED
05Wed 890100528002251778801177
10Mon 890100394001852518354050 12Wed 890100394001852518354050 0T90Z S\&t\&6 ع0z00 LtS00 I 068 uOW $\angle \mathrm{I}$
 0Z9SZ Z6Sc9 6L000 80900 L 068 uоWち乙 0z9SZ Z6Sc9 6L000 80900 L 068 рəM9Z
 [sçuદ] Schedule b 0540z

Good signals across the schedule varying from fair to very
0610z has shewn odd weak signals.
1.0500z: $5172 \mathrm{kHz} 2.0520 \mathrm{z}: 5872 \mathrm{kHz} 3.0540 \mathrm{z}: 7472 \mathrm{kHz}$ ID184 Mode: USB [Wed/Fri]
ID/msg/serial no/gc/dk/end grp
05Wed
07Fri
12Wed
14Fri
19Wed
19Wed
21Fri 26Wed
1．1900z： $8123 \mathrm{kHz} 2.1920 \mathrm{z}: 7523 \mathrm{kHz} 3.1940 \mathrm{z}: 6823 \mathrm{kHz}$
［5m11s］ ज
플 N N末
त्
® N
N
है W
守
守
 ［Tue／Thu］ ID／msg／serial no／gc／dk／end grp
01Tue 158100102002674469807116
03Thu 158100102002674469807116
08Tue 158100247003113625502531
10Thu 158100247003113625502531
15Tue 158100562002998974433424
17Thu 158100562002998974433424
22Tue 158100840002351572420603
24Thu 158100840002351572420603 Schedule e 1900z


1．0700z： 10327 kHz 2．0720z： 11627 kHz 3．0740z： 13427 kHz

| $\underline{\text { XPA［MFSK－20 Russian Intelligence Multitone System］10bd }}$ |  |  |
| :---: | :---: | :---: |
| 1．0700z： 10327 kHz 2．0720z： $11627 \mathrm{kHz} 3.0740 \mathrm{z}: 13427 \mathrm{kHz}$ |  |  |
| ID364 | Mode：USB ID／msg／serial no／gc／dk／end grp | ［Tue／Fri］ |
| 01Tue | 364100724002950218640276 | ［5m27s］ |
| 04Fri | 364100724002950218640276 | ［5m27s］ |
| 08Tue | 364109355002334513822271 | ［4m48s］Hans |
| 11Fri | 364109355002334513822271 | ［4m48s］ |
| 15Tue | NRH |  |
| 18Fri | NRH |  |
| 22Tue | NRH |  |
| 25Fri | NRH |  |

Schedule d 1400z
Both sub schedules poor strength，sometimes variable．

Schedule c 0700z
Strong signals across the schedule．Last transmission was
Friday 0700z11／02，finishing with a 233grp message．
Despite active searching this signal has yet to be found
 XPA [MFSK-20 Russian Intelligence Multitone System] 10bd
1.0500z: nnnnkHz 2. 0520z: nnnnkHz 3.0540z: nnnnkHz IDnnn Mode: USB [Wed/Fri]

ID/msg/serial no/gc/dk/end grp
02 Wed
04 Fri
09 Wed
11 Fri
16 Wed
18 Fri
23 Wed
25 Fri
Schedule a 0500z
Schedule now considered defunct

[^1]February 2011

## SPECIAL MATTERS:

Operation Jallaa: 0

MESSAGES:

E: Thanks; received after last email and placed to file.

## RELEVANT WEBSITES

ENIGMA 2000 Website:

Frequency Details can be downloaded from:

More Info on 'oddities' can be found on Brian of Sussex' excellent web pages:
Time zone information:

Encyclopedia of Espionage, Intelligence, and Security

EyeSpyMag!
http://www.enigma2000.org.uk
http://www.cvni.net/radio
http://www.brogers.dsl.pipex.com/page2.html
http://www.timeanddate.com/library/abbreviations/timezones/
http://www.espionageinfo.com/
http://www.eyespymag.com



[^0]:    Thanks to Richard for finding ID 214 scheds at $\mathbf{1 3 0 0 z}$ Mon \＆1500z Wed

    ## ＊Time of transmissions offset due to length of message ＊＊ID 480 Msgs transmitted in MCW

[^1]:    Thanks to all contributors: BR, FN, FR, Hans, Lee, RNGB esp those when asked to cover
    at short notice due to mv sudden illness.

