ENIGMA 2000 NEWSLETTER



http://www.enigma2000.org.uk





BAe Systems Type 101 Mobile Air Defence Radar System.
A fully automatic system capable of firing devices
without human intervention.
Located in Kent

Tnx Male Anon

ISSUE 72 September 2012

http://www.enigma2000.org.uk

Editorial, Issue 72

Variable signals across the month of July; rapidly changeable weather leading to some peculiar conditions with QRN rearing its ugly head. To break this cycle we offer the cover story before our station round up.

Cover pic story

Olympics and the Aether

Anon

In case anyone is still unaware London is hosting the 2012 Olympics, in fact by the time you read this it will all be over. Among the preparations is the need to ensure sufficient radio frequencies are available to meet an unprecedented demand. As the world's media descend on East London there will be a need for a huge range of services from satellite links to mobile phones, Wi-Fi, 2-way radios, radio links and wireless microphones. The job of providing all this falls to the British regulator Ofcom.

One of our members living close to London has stumbled across what may be a strange side effect of this process. As a monitor of all things radio he regularly scans the FM broadcast band, logging illegal "pirate" stations centred on the capital. For the past few years the band has been seemingly abandoned to the pirates, for Ofcom, once a proactive body, now only acts when an interference complaint is received.

Many of the stations run twenty four-hours a day, seven days a week, with others adding to the mix at weekends. At any time over the last few years at least thirty or more stations could be heard squeezed in between licensed broadcasters, a log from February 2012 lists forty stations from 87.5 to 108 MHz.

Between February and June the number of these stations dramatically decreased and long established stations disappeared from the band. On several recent band scans only six to eight stations were heard. Given that the eyes, (and ears), of the world will be upon us, has the government initiated a crackdown of the pirates, concerned that a vital link or relay may be wiped at a crucial moment by Garage, Old School or Bass & Drum? It would certainly seem so.

Frequencies recently released by the TV switchover from analogue to digital transmissions have been temporarily allocated to wireless mics and links, as have a variety of other band segments. To the consternation of radio amateurs parts of their bands have also been reallocated, with restrictions to various frequencies including parts of the 70cms amateur band and 300kHz at the lower end of the 2 metre band.

Any aspiring pirate operator who may have been thinking of joining the fray should bear in mind that as he bursts through the roof access of the tower block to hoist his antenna he could be confronted by one of the rooftop anti-aircraft missile squads or even possibly, a police marksman.

Thanks Anon.

I might state that hearing ATLAS Control on 118.225, 118.425, 119.225 and 119.975MHz speaking with aircraft as they approached the 'forbidden zone' showed just how geared up for problems we were. Despite all the nonsensical posts from a moronic public about MANPAD units on roofs and such like it was obvious they were the last line of defence, the folorn hope. There were also the North and South ATLAS Control freqs of 132.800 and 123.225MHz respectively.

I also intercepted a certain HF freq that was being used to pass certain targeting info en clair. I see fit not to disclose that frequency although a few others reading this will be aware that I did copy this info at good strength; an indication that NVIS was being used.

For once Britain did the right thing, not the Govt or that other faisco, G4S, but our armed forces. Proper persons and proper planning to whom the adage PPP=PPP and something which our successive useless governments should note as a mantra to be followed.

[BTW PPP=PPP means: Piss Poor Planning equals Piss Poor Performance......understand that well HMG, some of the public are seeing through you useless MPs who have never had a proper job or ranked up a sweat trying to earn a crust. You are the mosquitoes and tapeworms of the country. Parasites who live off the fat of the land whilst others struggle].

A quick round up of the regularly received Morse stations followed by Voice comment. You can find out more by reading the full log sections on these stations.

As ever, thanks to the monitors who supplied us with logs and thanks to the different 'desks' who have collated our input to produced reports and charts. Sadly there will be no Cuban Charts this month; matters are in expert hands and we dare to predict a return to normatily for NL74, if not sooner.

- M01 Did another operator take over the key following an unusually bad and abandoned attempt at sending a message on Sun 19 August?
- M08a A good selection of logs including many from new member Graydogs (Ggs), who is discovering the stations' legendary propensity for errors.
- M12 Fritz (FN) has supplied us with almost a full set of logs from this active station.
- M23 Details of the June's '555' short-lived transmissions have been included this time as these were found just as the last Newsletter was going to press. Another transmission, this time '111' was found in August unfortunately also short-lived, and being called by a pirate with a weak signal over several days.
- M51 Following a recent look at this station, we have a new allocation of M51a. Full details of the change and a short report on this station's output.
- M89 JPL continues to search out and log the pairings and operator chat from this unusual station.

M97 - As well as sending four new messages this station has revealed a little more about itself, using the pharases 'So Dien' & 'So Nhom' in place of the usual 'SD' & 'SN' abbreviations for the serial number and group count on one of the July messages. Any Vietnamese speakers out there?

Thanks Brian, now onto the Voice station round up.

E06

Continues much as expected, the early morning 0030/0130z Sat/Sun now considered closed and sadly missed. Some strong signals noted in August but also some changeable conditions leading to fades.

E07

Started well with a 142 group message for someone with the high group count carrying over into August and becoming 124 groups, the resultant message being a reespactable 15mins of writers' cramp long. A slight change occurred on the tertiary frequency of the August Sunday/Wednesday 1700z schedule with the change to 10505kHz from 10118kHz [1740z]; noted by PLdn and also on group.

E07a

The Wednesday, Thursday schedules have continued with excellent strengths whilst the new Saturday schedule has varied from excellent to fair strengths across both July and August.

E17z

Remains as much heard before over May and June, and commented on in NL71

E25

Undoubtedly active with few reports available to us at this time; thanks to those who have sent in.

Fam3 stations; E11, G11 and S11a.

The STRICH stations behaving as expected, messages circa 30 to 40grps intercepted over July and August.

G06

Remains active as expected over both months; some good strong signals heard, with the Monday 215 being much variable and not to the best.

S06/S069

Reports of this very active station show the sort of strength variation one would expect of such a large and active schedule. S06s continues with its many schedules with four minutes of "no message" with the exception of the Monday schedule in July which sent a full message with a group count of 139.

S21

Minimal reports, signals on these freqs at these times expected to be weak and difficult – moreso than usual.

S28

Still active, with odd report

V02a

Not many reports here; Either the DGI have started using other methods or there's not much interest in these stations anymore. Thanks to those who reported these. Strangely 0700/0800z sending are audible in Argentina with good work done by Daniel; despite monitoring nothing heard, as expected, by British monitors.

V16

We have had an input from an unexpected source who must remain 'MaleAnon2'

V21 Reports of this enigmatic station again thanks to MaleAnon

SK01 New transmission format describe [thanks MaleAnon].

XPA

The continuing no show from schedule XPA b means it leaves our reporting sheets with this issue having been NRH for three months. XPA c is continuing to send, surprising us with a full message too.

XPA e with its variable strengths, poor to readble, has now moved to its 1900z slot where it continues much as reported.

XPA2

The expected freqs working well for the Sunday/Tuesday schedules across both months and anyone's guess where it goes after this.

Some additional freqs sent in, some 'one hit wonders' as expected with others

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Before we look at the two months intercepts here's an account from HJH on a his business visit to Bletchley Park for his 65th birthday:

TWO GO MAD AT BLETCHLEY! (APOLOGIES TO E. BLYTON.)



Intercept suite to produce the intercept for Colossus to number crunch. Of interest, the AR88 receivers and [especially for DoK] the Morse Undulator sited middle lower.

The receivers were working and were tuned top DDK9 on 10100.8kHz for the tty sound to baffle visitors ---- not us two old sweats though

One of the great things about getting old, (well, the ONLY thing, really) is that people will buy you the things that you REALLY would like for your birthday. Probably makes up for all those years of really NAFF gifts!

So, on my 65th, lo and behold, the memsahib gave me a pass to Bletchley Park for two, and a load of spending cash! Quicker than a politician telling porkypies, plans were laid with my old buddy Paul B to visit said Crypto Palast.

Only catch was, Paul and his family would have to put up with me for 4 whole days. "No such thing as a free lunch," Paul was heard to mutter.

Travelling up by coach was doddle, although it takes longer, it is MUCH cheaper, and as added insurance, I took a favourite German language paperback. For our German members, it was "Die Rollbahn" (The Runway) by Heinz Konsalik. Why? Simple! Like Jasper Carrot, when travelling, I always seem to attract "The Nutter!" (Yeah, like calls to like!) Burying my nose in this, nary a dipstick approached me 'ere we reached our destination.

Saturday dawned bright and early, (shows that this was a long while ago now!) and Paul and I set off for Bletchley courtesy of London Transport, initially, and, on the home stretch, British Rail, or their descendants.

We arrived and were pleasantly surprised to find it really IS only a short walk to the Park from the train station. (I was, it was Paul's umpteenth visit.) Transferring the passes into admission tickets was short work, and the staff are genuinely helpful and obviously all enthusiastic supporters of "The Park."

After a short wait, we started out on our guided tour, with an excellent guide, who, like the rest is a supporter of Bletchley Park Trust. The amount of work done to restore the old mansion is impressive by any standards.

I will not bore the readers with a blow by blow account, 'cos my memory is another thing which is none too good these days. Suffice to say, and this is worthy of mention, is that the Park was earmarked for use, pre-war, by the then head of MI5 for use by the Code staff. Sufficient funds were not forthcoming from Government funds. Instead of shrugging his shoulders, and writing off the project, Admiral Sinclair used his own personal money to buy this site. I mention this here, because it is, I think, indicative of how things have altered in this country. (Britain.) Would such patriotism be found today? One would like to think so, but for one, I very much doubt it!

Our tour guide took us through every facet of the operation of interception of code breaking which took place at Bletchley Park, or Station X, as it has become known to many.

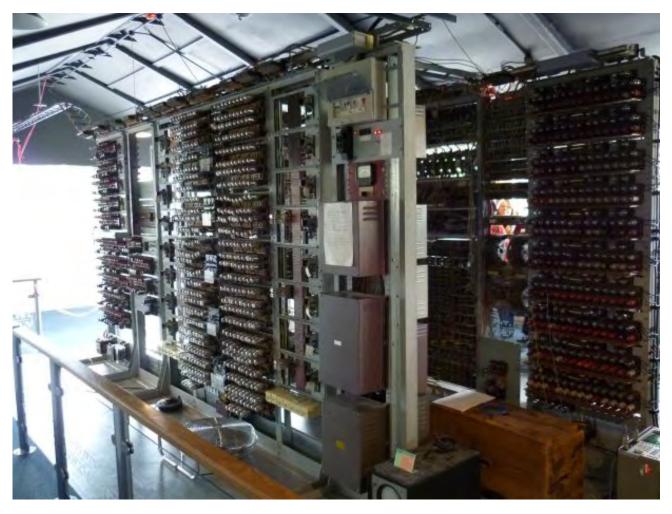
One thing which sticks in this addled old pate is that Station X was the name given to the radio intercept station located in the tower on the building of Bletchley Park, and only referred to that location.

The name I shall use, for ease of reference and due to my sheer laziness, is The Park. We were shown the replica Bombe machines and I was heartened that the immense contribution of our WW2 allies, initially the Poles, and later the French, was not left out.

Also making a huge contribution were the United States team of cryptanalysts and Sigint officers who were attached to the Park. The contribution which they would make was enormous when it resulted in the breaking of Japanese naval and other codes although Bletchley had, again, got there first [JN25 & Eric Nave of RAN]. This achievement has often struck me as too little thought of or acclaimed today. Imagine, even attempting to break a code in a language as difficult as Japanese must be to we Occidentals.

No mean feat. This breakthrough culminated in the ambush and shooting down of the personal aircraft of Admiral Yamamoto. One is reminded of one of this officer's remarks post Pearl Harbour. "We have awakened a sleeping giant." (Sure took the edge off my cousin's college days. He was in the South Pacific on Assault Transports soon after! However, unlike Yamamoto, he survived, and is now retired in California!)

The out stations which were involved in the code breaking operations were covered in some detail. What is often forgotten is that without interception, sometimes translation, and eventually analysis, code breaking would be difficult, if not impossible. Certainly, no interception equals no coded traffic on which to carry out cryptanalysis!!!



A different view of Colossus, taken during the trip, of the business side of the machines, showing the many valves used [tubes].

On with the tour, we came later to the working replica of Colossus. Now fully restored and working, this machine is a living working tribute to the men and women who worked so hard to make Bletchley the wartime success which it was and, post war, to make it a fitting tribute to those people.

We often forget the many support staff, comprising intercept operators, linguists, typists, (many of whom, if memory serves, were akin to cryptanalysts in rendering into readable English, the product that raw intelligence so often produces. Have YOU ever read intercept operators initial report? HA!!!

I must also mention in conjunction with the present day Colossus, the late Doctor Tony Sale, who contributed so much to make The Park the fitting tribute which it has become. Toward the end of the tour, following many interesting exhibits which cover a whole range of intelligence and SIGINT activities is a very interesting and educational exhibition put on by RSGB, who were also there in person to answer any questions which visitors may have.

All in all, a GREAT day out! Icing on the cake (no pun intended!) was a delicious meal for which Paul picked up the tab! Shukri Effendi! You are a river to your people!

Back into London via our previous transport providers, and a stop at a hostelry opposite the rail station. I heartily recommend this to all! Thornton Heath, Weather spoon's pub, the 'Flora Sandes' by name.

Friendly and enjoyable! Well, do YOU know a boozer in sight of Crystal Palace where you can get a pint of Stella for £2—60p.

My thanks to Paul and his family for an excellent weekend, great food, and a place to lay my weary head! [We have 5 bedrooms and made sure he went into the one on the third floor]!

In conclusion, two thoughts: First, as I remarked to Paul; Had the Park been an American project and in US care, one would have no problem ensuring the care of the site and upkeep of the legacy which these marvellous men and women have left us. Money would be, quite literally, no object.

Second, although the perceived wisdom had it that all Colossi were destroyed, together with their plans and circuit schematics post war, I have long thought that this was not so. British Army service consolidated this belief, although I NEVER saw one of the beasts. It has now transpired that at least two were kept operational.

Source is private conversations and Discovery Channel research. This leads us to think that at least two remained in service. Well, if YOU had a device which had just helped you win a 6 year war, you would naturally smash it to pieces. Wouldn't you? Till next time--------HJH.July 2012.

[Not if with a little forward thinking you were aware the Russian War Machine was picking up Geheimschreiber for its own use in peacetime and Colossus could, indeed crack it but then a war weary world is an excellent receptacle for the best deception tool of all B³ better explained as bullshit baffles brains].

Thanks 499, excellent piece.

German Branch Report

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

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

This time we have again news from both E2Kde and X06.

Forum splitting

In August, the forum of the "Geheime Welten" (secret worlds), which was also known as sigint-group.org, has been splitted. Now the "Geheime Welten" (www.geheime-welten.de) only brings news about other secrets like urban, old buildings, castles etc. The radio and shortwave forum, where also the numbers group belongs to, you can now only reach via http://www.sigint-group.org. So for E2K/de and all the other sigint, espionage, radio and shortwave fans only this link is interesting.

E2Kde meeting in Marburg

Our last meeting in Erfurt on April 23^{rd} 2011 is more than a year ago. There some people said, they wish to reach out the next meeting in Marburg at my home. This will happen on Saturday, October 6^{th} this year. Many friends from the German Branch are invited, and I will do the same to you on the E2K group. So if somebody has the time to travel to Marburg, please let us know – the best way will be via group.

Of course, I'll keep the group posted about more details like the exact time (in UTC and CET) and other activities which are planned. We all would be glad, if you join our 4th official E2Kde numbers meeting in Marburg, Ockershauser Allee 17 (D-35037 Marburg, Germany).

And now we come again to the X06 section, cause as expected, Mazielka came back and was more often logged in July/August:

X06 Mazielka (1C) logs section

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Day UTC
                  Freq Scale Monitor Comments
20120626 Tue 1016-1020 13510 612534 Peter/UK Fair, M449
20120704 Wed 0919-1150 14377 432516 Peter
                                              Very weak and long, M450
20120704 Wed 1046-1050 14631 362154 Peter
                                             M451
20120720 Fri 0818-0820 14570 324615 Peter
                                            Weak, M452
20120720 Fri 0939-0942 16103 645321 Peter
                                           Fair, M453
20120720 Fri 0955-0958 12215 361245 Peter
                                            Very good, M454
20120720 Fri 1024-1030 14824 625413 Peter
                                            Poor, M455
20120720 Fri 1411-1418 14650 215346 Peter
                                            Good, M456
20120725 Wed 0755-0757 13419 465132 Peter
                                              Very strong, M457
20120725 Wed 0804-0811 11483 412356 Peter
                                             Fair, M458
20120725 Wed 0852-0855 16116 134265 Peter
                                             Very strong, M459
20120725 Wed 0853-0950 10815 412356 Fritz/CH
                                               Alert type 3.1 I. p., G
20120725 Wed 0910-0915 9061 412356 Peter
                                             3.2 Fair, M460
20120725 Wed 0916-0918 11483 412356 Peter
                                             3.3 Strong, M461
20120725 Wed 1531-1536 11483 412356 Peter
                                             Very strong, G
20120726 Thu 0754-0757 14419 521634 Peter
                                             Good, M462
20120726 Thu 1046-1051 13506 164532 Peter
                                             Good, M463
20120726 Thu 1514-1518 14440 564213 Peter
                                             Strong carrier, weak USB sig, M464
                                              X06c i. p.
20120727 Fri 0704-0708 14450 123456 RNGB
20120727 Fri 0746
                    9288 356412 Peter
                                        Fair, M465
20120727 Fri 0750-0757 12213 615243 Peter
                                            Fair, M466*
20120727 Fri 0801-0809 16153 153624 Peter
                                            Fair, M467
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20120801 Wed 1002-1005 18346 214356 Peter
                                              Fair, M468
20120802 Thu 0700-0706 16277 436512 Peter
                                             Good, M469
20120802 Thu 0731-0736 15973 162543 Peter
                                             Fair, M470
20120802 Thu 1225-1228 16132 352416 Peter
                                             Good, M471
20120803 Fri 0646-0648 16320 241563 Peter
                                            Good, M472
                                            Very strong, M473
20120803 Fri 0956-1000 14501 361245 Peter
20120806 Mon 1533-1536 12199 532614 Linkz, Peter Very strong signal & ORM, M474
20120807 Tue 0755-0758 12157 165423 Peter
                                             Very strong, M475
20120807 Tue 0940-0941 18206 246531 Linkz/FR
                                               Alert 2.1 Strong signal/QRM, M476
20120807 Tue 0942-0946 17421 246531 Linkz, Peter 2.2 Fair to very strong, M477
20120808 Wed 0724-0727 16045 435621 Peter
                                              Weak, M478
20120808 Wed 0750-0751 13419 465132 Peter
                                              Fair, M479
20120808 Wed 0820-0823 10814 412356 Linkz, Peter Fair, M480
20120808 Wed 0901-0903 16115 134265 Peter
                                              Fair, M481
20120809 Thu 0731-0735 9388 561243 Peter
                                            Good, M482
20120809 Thu 0935-0937 16223 164532 Peter
                                             Good, M483
20120810 Fri 0755-0803 10653 356412 Peter
                                            Good, M484
20120810 Fri 0803-0810 12213 615243 Peter
                                            Fair to very weak, M485
20120810 Fri 0806-0810 16153 153624 Peter
                                            Fair to very weak, M486
20120819 Sun 1600-1602 13388 1---5--- Kopf
                                               Strong X06b with break
20120819 Sun 1620-1622 13388 1----- Kopf
                                            X06b with single tone and break
20120819 Sun 1630-1633 13388 1----- Kopf
                                            Strong comeback without break
20120827 Mon 0937-0940 10372 431625 Hans/NO
                                                Weak, some QSB, M487
20120827 Mon 0957-1001 13517 463125 Hans
                                              Fair/strong, M488
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* Began 0749 with "614253" (error).

Nice stuff again as usual - thanks to the contributors. Next time there will be more. Till then "Auf Wiedersehen" and "Good-bye"

Jochen Schäfer, KopfE2Kde and X06 Teamkopf

MORSE STATIONS

M51a New Designation

M51a is assigned. Effective 18 August 2012. Letter variant of M51.

French text, 5 ltr grps & numbers. Regular scheds on 3881//6825kHz. Using call-sign FAV22.

Up until now the designation M51 has covered several types of CW transmissions, believed to be emanating from France, the main part of which has consisted of 5 letter groups transmitted at seemingly random times for long periods, using an equally random choice of frequencies. Transmissions start and stop without any form of identification or use of start / finish sequences or characters. These transmissions will continue to be designated M51.

This is in contrast to the very formal, scheduled and ordered transmissions that are transmitted under the call-sign FAV22, believed to be allocated to the French army at Mont-Valerien, Paris - these have now been designated as M51a.

FAV22 transmits Morse in several formats, divided into lessons for Morse code instruction and training.

Freqs: 3881//6825kHz

 $\begin{array}{c|ccccc} \textbf{Time Schedule:} & \underline{Mon - Fri} & \underline{Sat} & \underline{Sun} \\ \hline 0830 - 0900z & 0830 - 0900z & 0655z \\ \hline 1130 - 1200z & 1130 - 1200z & 0820z \\ \end{array}$

Speed: Day: <u>Mon Tue Wed Thu Fri Sat Sun</u>

Grps per hour: 420 600 720 840 960 840* 400* (0655z) 600/1200* (0820z)

* Speeds used on day monitored - may vary.

Format: VVV VVV VVV DE FAV22 FAV22 FAV22 QLH 3881/6825kHz (R4) (QLH - Simultaneous keying on ...freq & freq)

Vitesse annoncees legerement superieures (Speed announcements slightly higher)

Lecon xx-x/x Vitesse xxx Codé (or Clair) BT (Lesson No. Speed Code (or Clear))

The start sequence is always sent in slow CW up to the start of the lesson number, where the speed will change to that scheduled for the day, which increases in speed over the week.

Then will follow exercises in CW. Several lessons may be sent in one session.

Where Codé is sent this will consist mainly of 5 letter groups with some 5 figure groups and occasional punctuation characters mixed in. Ending AR

Where Clair is sent this will consist of French text, usually formal as from a text book (complete with accented letters). Ending AR.

At the end of the transmission (which may under or overrun the 30 min schedule by a few minutes), the following ID sequence is sent once;

CQ DE FAV22 VA

It does not appear that the output of FAV22 is of any interest to ENIGMA 2000 (except for the excellent Morse practise it provides - sharpen your pencils!). However the M51 output and any other transmissions, some of which are heard on these allocated frequencies, may be worth looking at more closely.

What is puzzling is that a station operating so formally should have such a wild and random sister station, apparently being operated by the same organisation, or at least from the same transmitters.

If you would like to know more about FAV22 and the history of the French networks I can highly recommend reading Fritz Nusser's page on his 'Fascinating Shortwaves' website.

$\underline{http://www.astrosol.ch/53790397a40a2bb01/53790397a40a33d07/index.html}\\$

Although I have arrived at the above by personal monitoring, the information on Fritz Nusser's page was of tremendous help in the compiling of this article. Thanks also to PLdn and GD for their help and logs on FAV22 that led to me taking a closer look at this station.

Brian Rogers - S.E. England

Morse Logs

All frequencies listed in kHz. Freqs are generally +- 1k

This is a representative sample of the logs received, giving an indication of station behaviour and the range of times/freqs heard. These need to be read in conjunction with any other articles/charts/comments appended to this issue.

A very good selection of logs have been received for this period - many thanks to all of you who have submitted logs and reports, these are very much appreciated.

Unidentified CW (UNID)

We start with a strange log from Marco (DLBB) heard late evening on Wednesday 15 Aug.

4807 2107z 15 Aug Unidentified CW Long Zero DLBB WED

-0000 00003 00006 40010 00005
00006 50014 00006 00006 40013
00102 00006 40010 00001 00612
40010 00002 00612 50011 00005
00612 60017 00006 00612 50016
00102 00612 50011 AR -

It was thought to be likely military Ops, possibly special forces. There was a similarity to several old and inactive ENIGMA designations, but given the lack of detail available it was difficult to pin this one down.

The station was heard again on Friday 17 Aug, and this time we were lucky enough to catch the identity of our mystery CW station.

4807 2138 (IP) – 2145z 17 Aug CW 5f grps Long Zero Weak into S.E. England BR FRI

2138z 5f grps consisting mainly zeros (long) Ending 2140z with AR

2142z RLO RLO RLO DE RIT RIT QTC 438 0133

Followed by type of 5f grps, ending 2145z with AR

RIT is the call-sign of the Russian Navy at Vaygach. So these msgs originate from them. Further monitoring appears to show that this is a regular broadcast from RIT starting at 2100z daily.

Another UNID signal, this time from Fritz (FN) heard on Fri evening, 24 August;

4900.2 1910z 24 Aug UNID CW [Repeating: vvv vvv test test de ANT ANT ANT k] FN FRI

(According to the International Call-sign Allocation List this sequence falls within a series allocated to Spain. However, there is no evidence that Spain has ever used this allocation - preferring the Exx set of letters. So most likely a strategic or bogus call-sign).

Regular Logs

M01/3 XIV MCW, hand (025 sched for May - Aug). Will change to M01/2 sched ID 463 for Sept - Oct. No repeat msgs sent.

July 2012:

4905	2000z	03 Jul	'025' 604 30 = =		LG $79329 = $ Strong, fast. Errors grps17 - 19	BR	TUE
	2000z	05 Jul	'025' 710 30 = =	78866	LG $29123 = $ Strong, med-fast	BR	THU
	2000z	10 Jul	'025' 820 30 = =	46815	LG $48089 = $ Good, med-fast	BR	TUE
	2000z	12 Jul	'025' 913 30 = =	95942	LG $31956 = $ Good, med-fast	BR	THU
	2000z	17 Jul	'025' 660 30 = =	60713	LG $56776 = $ Strong, fast. Error grp08	BR	TUE
	2000z	19 Jul	'025' 002 30 = =	44063	LG 05776 = = Good, fast. Excellent CW	BR	THU
	2000z	24 Jul	'025' 607 30 = =	68041	LG 00117 = = Strong, fast, (slow grps05 - 12). Error grp06	BR	TUE
	2000z	26 Jul	'025' 280 30 = =	45631	LG 07745 = = Strong, v.fast. Multiple errors. 32 grps sent	BR	THU
	2000z	31 Jul	'025' 713 30 = =	42275	LG 71087 = = Strong, fast. Starting DK sent as 713 513	BR	TUE
5280	1800z	03 Jul	'025' 305 30 = =		LG $42533 = $ Weak, fast. Poor copy	BR	TUE
	1800z	05 Jul	'025' 218 30 = =	10692	LG $71838 = $ Weak, med-fast	BR	THU
	1800z	10 Jul		NRH		BR	TUE
	1800z	12 Jul		NRH		BR	THU
	1800z	17 Jul	'025' 448 30 = =	81356	LG $30448 = $ Good, fast	BR	TUE
	1800z	19 Jul	'025' 513 30 = =		LG $15967 = $ Weak, fast. Poor copy	BR	THU
	1800z	24 Jul	'025' 793 30 = =	80797	LG $92826 = $ Good, fast. Error grp14	BR	TUE
	1800z	26 Jul	'025' 345 30 = =	91380	LG $03007 = $ Good, V.fast. Error grp18	BR	THU
	1800z	31 Jul	'025' 621 30 = =	83789	LG $91973 = Good$, fast.	BR	TUE

6435	1500z 1500z 1500z	07 Jul 14 Jul 28Jul	'025' '025' '025' 512 30 = =	Very weal	k sig. No useful copy k sig. No useful copy LG 22244 = = Weak, med-fast	BR BR BR	SAT SAT SAT
6780	0700z 0700z 0700z 0700z 0700z	46815 63 87713 86 43987 03 56756 22 12345 13 09864 16	'025' 117 30 = = '025' 411 30 = = '025' 999 30 = = '025' 990 30 = = '2000z 10 July12' 820 820 30 30 = : 1750 49879 93351 2 5864 02987 00590 30 1325 11112 47474 09 1112 44554 89897 00 112 4457 89897 00 11	2 (Paired gr = 1629 0198 9098 0009 6387	LG 5 . 755 == Weak, fast. Poor copyLG 48500 == Fair, fastLG 92114 Fair, fast. Error grp18, == missing at EOMLG 88377 == Nice solid signal, no mistakes ps)	BR BR BR BR RNGB	SUN SUN SUN SUN SUN

Courtesy BR

August 2012:

4905	2000z	02 Aug		NRH	BR	THU
	2000z	07 Aug	'025' 456 30 = =	01578LG $12801 = Strong$, med-fast. Numerous errors	BR	TUE
	2000z	09 Aug	'025' 713 30 = =	47248LG $27079 = $ Strong, fast but erratic with errors	BR	THU
	2000z	14 Aug	'025' 610 30 = =	05324LG $36663 = Strong$, V.fast. No errors	BR	TUE
	2000z	16 Aug	'025' 223 30 = =	26058LG $01214 = Strong$, fast	BR	THU
	2000z	21 Aug	'025' 576 30 = =	99797LG $08504 = $ Strong, slow. Multiple errors noted.	BR	TUE
	2000z	23 Aug	'025' 137 30 = =	47090LG $75559 = $ Strong, fast. Multiple errors noted.	BR	THU
	2000z	28 Aug	'025' 794 30 = =	79210LG $38595 = $ Strong, slow. With errors .	BR	TUE
5200	1000-	02 4	10251 150 20	V	BR	THE
5280	1800z	02 Aug	'025' 150 30 = =	Very weak sig. No useful copy		THU
	1800z	07 Aug	'025' 293 30 = =	88062 Weak sig, deteriorated to no copy by 1807z	BR	TUE
	1800z	09 Aug	'025' 515 30 = =	98196LG $38514 = $ Strong, fast but erratic. Error on grp21	BR	THU
	1800z	14 Aug	'025' 840 30 = =	08985LG 43366 = = Good, V.fast. Multiple errors noted.	BR	TUE
	1800z	16 Aug	'025' 119 30 = =	41998LG $21738 = $ Good with QSB, fast	BR	THU
	1800z	21 Aug	'025' 974 30 = =	90636LG $36356 = $ Strong. slow	BR	TUE
	1800z	23 Aug	'025' 748 30 = =	83336 LG $46441 = $ Strong, V.fast	BR	THU
	1800z	28 Aug	'025' 976 30 = =	66171LG $65762 = Good$, slow	BR	TUE
6435	1500z	11 Aug	'025' 459 30 = =	98863LG 97349 = = Fair, V.Fast. Poor copy	BR	SAT
	1500z	25 Aug		NRH	BR	SAT
6780	0700z	05 Aug	'025' 517 30 = =	40758 08506 41599 86603 8824499415. grp21 sent once only	RNGB	SUN
	0700z	12 Aug	'025' 381 30 = =	24695LG $18489 = Fair$, fast. Errors in grps $09 & 23$	BR	SUN
	0700z	19 Aug	'025' 395 30 = =	78697LG $00963 = $ Strong, fast. Restarted after six grps.	BR	SUN

We are used to errors on the M01 regular transmissions which are believed to be training msgs for the station, however, this one was unusual even by their standards. BR reports;

The 19 Aug Sunday transmission started with the (now common), alternative preamble (395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395 30 = 395

 $0700z \qquad 26 \text{ Aug} \quad '025' \ \ 212 \ \ 30 = = \qquad 85257... \quad ... \\ \text{LG} \ \ 12814 = = \ \ \text{Strong}, \\ \text{fast}. \ \ \text{Error on grp01} \qquad \qquad \text{BR} \qquad \qquad \text{SUN}$

 $\underline{\underline{M01a}}$ (formerly end of month TXs, now random) No Reports

<u>M01b</u>

July 2012:

5125	1830z (IP)	09 Jul	(In progress) 7980, 7310 30 27900 13399 29928 (BT)	Tillmann	MON
5475	1915z	23 Jul	'858' 326 326 30 30 = =	GD	MON
5735	1810z	23 Jul	'364 326 326 30 30 = =	GD	MON
August 2012:					
5075//5465	1903z	17 Aug	'467' 326 30 = 72964 42084 1919z Strong / (Used wrong ID !!)	Hans /RNGB	FRI
5095	1832z	09 Aug	'815' 326 326 30 30 = =	GD	THU
5096	1849z (IP)	16 Aug	Ends 326 326 30 30 000 Very strong signal in Herne, West Germany	Jeanmo	THU
5340	2010z	17 Aug	'467' 326 30 = 72964 42084 etc	RNGB	FRI
5465	1902z	17 Aug	'467' 326 30 = 62964 42084 15030 52381	RNGB	FRI

5805	19	942z		09 Aug	'936' 326 326 30 30 =	==			GD	THU
5940	1:	505z		16 Aug	'159' Rest U/R				GD	THU
M01c No reports										
<u>M03</u> III I	103 III ICW, some CW									
6524	1535z		03 Jul	798/00					HFD	TUE
	1535z 1535z		04 Aug 28 Aug	798/00 == 798/00 F					FN Hans	SAT TUE
7727	1320z 1320z		11 Jul 25 Jul	543/00 548/38 =	27863 24036				RNGB FN	WED WED
	1320z		27 Aug	540/34 = '	78895 37238 85819 93	3486			RNGB	MON
7837	1320z 1320z		05 Aug 26 Aug		Strong with fading 1323z Fair				DLBB Hans	SUN SUN
M03c (Stutter groups) No reports				M03d No reports	3	M03e No reports				

${\underline{M08a}}$ XVIII ICW / CW, some MCW

These are the frequencies logged during the period, to be read in conjunction with Mark Slaten's charts.

This time in addition to our regular contributors, new member Graydogs (Ggs) has supplied us with a good selection of the M08a logs that we just can't hear most of the time here in Europe. Thanks Graydogs, and welcome to E2k.

July 2012:

5398	0505z	23 Jul	QRN5 End ukn	Ggs	MON
5800	0600z	12 Jul	QRN4. End 0634z	Ggs	THU
	0600z	15 Jul	Fair cond. End 0632z	Ggs	SUN
	0600z	16 Jul	End ukn	Ggs	MON

Graydogs writes; Parked on 5898kHz @ 0450z waiting for M08a's 0500 xmit. At 0456z two characters were sent (CW) very clear and third distorted when xmit was stopped abruptly. They were AN? (123 perhaps?) Actual xmit didn't start until 0505z. During this time there was a loud and clear tone as if a transmitter was being tuned to the freq. I had to move down to 5.895kHz in order to copy the message. Therefore posting as follows;

5895	0500z	22 Jul	QRM5 End 0539z (M08a Abnormality)		Ggs	SUN
5898	0500z	02 Jul	[87871 01201 76141] Weak		PLdn	MON
	0500z	06 Jul	[65712 41651 52481] Strong signal but qrm5 splashed by Bro	o. Stair	Ggs	FRI
	0500z	08 Jul	ORM5 FN 0539z Severe ORM from Bro Stair		Ggs	SUN
	0505z	08 Jul	[73762 84402 07831] Fair, straight into msg, no call up AUT	ΓΟΙΝΤΕRCEPT	PLdn	SUN
	0500z	09 Jul	Fair, end 0534z First msg was garbled again by Bro. Stair's p	preaching.	Ggs	MON
		First msg	nded with WIUDA X5 (57431 x5). Second msg ended with RA	GWN x5.		
	0504z	09 Jul	[46701 57431 61852] Fair AUTOINTERCEPT		PLdn	MON
	0500z	10 Jul	NRH Band checked, condx good. Off watch 0515z		PLdn	TUE
	0500z	12 Jul	QRM5. End 0534 Religious program covered the signal.		Ggs	THU
	0500z	13 Jul	QRM5 End 0534z Again covered by religious programming	ng.	Ggs	SAT
	05??z	14 Jul	QRM5 End 0554z Religious programming again on 9858	made copy hard	Ggs	SUN
	0500z	14 Jul	[41022] 1st grp only, Weak, barely readable AUTOINTER	CEPT	PLdn	SAT
	0501z	16 Jul	[88252 08802 12222]		Ggs/PLdn	MON
	0500z	21 Jul	[50332 62172 75501] Weak		PLdn	SAT
	0505z	22 Jul	[33621 54451 67782] Fair		PLdn	SUN
	0504z	23 Jul	[Straight into groups; grps 1-3: 04762 75286 44686] Fair		PLdn	MON
	0500z	27 Jul	[62781 67890 12345] QRN5 End unk Note the sequent	ial numbers	Ggs	FRI
	0500z	28 Jul	[45672 56322 60641] QRM4 End 0534z Bro. Stair doing	his best to jam my spy.	Ggs	SAT
	0505z	29 Jul	[57452 68182 82521 LG not readable] ARARAR SK 0540z I	Fair, , QSB3 with LOS 0512 to 0513z	PLdn	SUN
	0500z	30 Jul	[23771 44412 57841] Fair, QSB2 End 0534z		Ggs/PLdn	MON
6785	1900z	18 Jul	QRN5 Very weak End uk		Ggs	WED
	1900z	19 Jul	QRN5 End 1933z		Ggs	THU
	1900z	30 Jul	Strong		kym	MON
6854	2200z	11 Jul	Weak, End 2233z		Ggs	WED
	2200z	18 Jul	QRN4 End 2234z		Ggs	WED
	2200z	19 Jul	[55161 72822 68481] QSA4 QRN4		HT	THU
	2200z	19 Jul	[55161 68841 72822] Good copy End 2234z		Ggs	THU
6932	2100z	19 Jul	QRN5 End 2133z		Ggs	THU
7226	2200z	10 Jul	QRN5 End ukn Deep in the dirt. Completely lost him 2	223z.	Ggs	TUE
	2200z	10 Jul	[04731 17152 21581] QRN3 End ukn		Ggs	TUE
7319	1000z	23 Jul	QRM3 End unk		Ggs	MON
	1000z	30 Jul	QRN5 End ukn		Ggs	MON
	1000z	30 Jul	QRN5 End ukn		Ggs	MON

7519	2159z	20 Jul	[87582 11821 24352] End 2227z	Ggs/HT	FRI
	2200z	23 Jul	[22852 ????? ?????] QRN4 End 2227z	Ggs	MON
	2200z	30 Jul	[72212 80632 13061] QRN3 End 2227z Repeated at 2300z	Ggs	MON
7526	2200z	31 Jul	[74682 87122 01441] QRN4 End 2227z Repeat at 2300 on 81	35kHz Ggs	TUE
7554	2000z	09 Jul	QRN4 End 2033z Very weak signal.	Ggs/kyn	
	2000z	11 Jul	Weak, End 2034z	Ggs	WED
	2020z (IP	*	End 2034z	Ggs	FRI
	2000z	19 Jul	[????? 23362 36601] QRN3 End 2033z	Ggs	THU
	2000z	19 Jul	[In progress, 34561] QSA 4	HT	THU
	2000z	26 Jul	Weak	kym	THU
7579	1300z	12 Jul	Strong. End 1334z	Ggs	THU
	1300z	19 Jul	[17711 21242 34561] QSA0 THU (Bird in background)	нт	THU
	1300z	20 Jul	[84471 15211 28532] QSA5	HT	FRI
	1300z	23 Jul	[48051 62481 73121] QRN3 End 1334z	Ggs	MON
	1300z	30 Jul	[28431 32752 45181] QRN4 End 1334z	Ggs	MON
	1300z	30 Jul	[28431 32752 45181] QRN3 End 1334z Repeated at 1400z	Ggs	MON
	1300z	31 Jul	[58721 72152 85471] QSA2	HT	TUE
8009	2300z	04 Jul	END 2327z	Ggs	WED
	2300z	09 Jul	WDUWA x 5 (53451) and RRGGN x 5 (66882). Weak End 2327		MON
			dition there was a series of data bursts that started about 15 secs. a	after end of msg followed by one long data	burst. the whole
	data burs	t event cau	ht me by surprise and I didn't count the bursts.		
	2200z	19 Jul	[73322 86641 60081] QSA4	HT	THU
	2200z	19 Jul	[60081 73322 86641] Good copy End 2227z	Ggs	THU
	2300z	23 Jul	QRN5 End?	Ggs	MON
8095	1400z	12Jul	Strong	kym	THU
8096	1400z	10 Jul	[81732 11161 23482] Fair	kym	TUE
	1400z	11 Jul	Fair. End 1434z	Ggs	WED
	1900z	11 Jul	[58281 72821 85242] Fair	kym	WED
	1400z	12 Jul	Fair, End 1434z	Ggs	THU
	1401z	16 Jul	QRN5 Lost Sig 1429z	Ggs	MON
	1400z	17 Jul	QRN5 End uk	Ggs	TUE
	1400z	18 Jul	QRN3 End 1432z	Ggs	WED
	1400z	20 Jul	[84471 15211 28532] QSA4	HT	FRI
	1400z	23 Jul	[48051 62481 73121] QRN5 End 1434z (Rpt of 7579kHz 1300z)	Ggs	MON
	1400z	31 Jul	[58721 72152 85471] QSA1 QSB3	НТ	TUE
8097	1800z	09 Jul	Very Weak. End UKN	Ggs	MON
	1800z	13 Jul	Not scheduled but test carrier is on	kym	FRI
	1900z	13 Jul	Fair	kym	FRI
	1400z	19 Jul	[17711 21242 34561] QSA0 QSB4	ЙТ	THU
	1800z	20 Jul	[72361 85682 08121] QSA1, QSB4	HT	FRI
	1900z	20 Jul	[63202 86531 50871] QSA1, QSB4	HT	FRI
	1900z	23 Jul	[60322 73642 56081] QRN4	Ggs	MON
	1900z	30 Jul	Weak	kym	MON
8135	2300z	12 Jul	Good / Strong. End 2327z	Ggs/kyn	n THU
	2300z	19 Jul	[60081 73322 86641] Good copy End 2327z (Rpt of 8009kHz 22		THU
	2259z	20 Jul	[87582 11821 24352] End 2327z (Rpt of 7519kHz 22	200z) Ggs/HT	FRI
9097	1900z	18 Jul	QRN4 Very weak End uk	Ggs	WED
9112	0959z	22 Jul	[68572 72801 85230] QSA1	НТ	SUN
				_	
10432	0900z 0900z	06 Jul 08 Jul	Weak QRN1 In progress QRM4 End 0934z Sharing freq. with RTTY station. RTTY en	Ggs ded 4mins after M8a Ggs	FRI SUN
10445	0300z	12 Jul	Strong. End 0334z	Ggs	THU
	0300z	26 Jul	[24462 37781 41222] End 0334z	Ggs	THU
11565	0400z	12 Jul	QRN5. End 0434Z Bad QRN and QRM over a weak signal	Ggs	THU
August 2	012:				
	<u>-</u>				
5800	0600z	05 Aug	[00231 01071 24302] QRN2 End 0634	Ggs	SUN
	0600z	16 Aug	[66342 53021 31271] End 0634z	Ggs	THU
	0600z	21 Aug	[00601 11431 24762] Sudden stop in Transmission for 60secs at 0	0615z End 0634z Ggs	TUE
5898	0505z	03 Aug	[40221 62061 75381] Fair	PLdn	FRI
			•		

PLdn writes; Checking my autofiles I find there is a five minute break between message one and message two; this is the second time this has happened except the first seen on 29 July lasted just a minute.

0505z 03 Aug

Entire spectral image of transmission showing 5min gap between msgs

Courtesy PLdn

0503z 04 Aug [03813 5144n (76220)] Unsure of last group. Weak and noisy in UK, started just before message Ggs/PLdn SAT Graydogs reports; Came on late in full stride already in message. At 0522z suddenly drops off air. Remains quite for one min and reappears at 0523z.

	0503z	05 Aug	[ANDUWRIGMT 1234567890] Fair, QRM2 QSB2 Poor Condx	PLdn	SUN
	0500z	06 Aug	[12732 44462 57881] QRN4 End 0534z	Ggs	MON
	0532z	06 Aug	[Last grp: 76473 ARARAR SK] Fair. (Start missed due to power failure at remote autosystem)	PLdn	MON
	0500z	09 Aug	[40561 51301 64632] QRN4 / Fair, QSB2 End 0534z	Ggs/PLdn	THU
	0500z	11 Aug	[78512 50342 02072] Fair,QSB2	Ggs/PLdn	SAT
	0505z	12 Aug	[44532 64662 77802] Fair, QRM2 QSB2	PLdn	SUN
	0501z	13 Aug	[63712 83751 87772] Fair, QSB3	PLdn	MON
	0507z	16 Aug	[98 45666 6E 55457 06134 42125] late start, uknwn lttr values-meteo METAR? Then into msg	g? PLdn	THU
	0500z	16 Aug	[????? 53021 66342] Heavy QRM first 5 min. then clear. End 0534z	Ggs	THU
	0502z	17 Aug	[12345 67890 12345] Fair	PLdn	FRI
	0500z	18 Aug	[40711 50742 71582] End unk / Fair	Ggs/PLdn	SAT
	0505z	19 Aug	[38111 58152 61581] End 0539z / Fair	Ggs/PLdn	SUN
	0500z	20 Aug	[45531 66261 70482] Fair	PLdn	MON
	0500z	23 Aug	[41182 62722 75641] Fair, QSB3	PLdn	THU
	0504z	24 Aug	[15561 26301 30632] Came on early, sent 12345 67890 then silent until 0504z. End 0539z	Ggs	FRI
	0502z	25 Aug	[73502 04232 17652 LG34038 ARARAR SK] 0534z Strong, QSB2	Ggs/PLdn	SAT
	0500z	27 Aug	[67461 70201 83532 LG00367 ARARAR SK] 0534z Fair, QRM2 QSB2 (34m22s)	Ggs/PLdn	MON
	0500z	30 Aug	[08002 35751 48182] End 0534z Dropped out during intro & in and out during all three messages	Ggs	THU
			Transmitter would suddenly drop out for up to three minutes before reappearing as if nothing happ	pened.	
			At 0518z suddenly stopped and reappeared at 0522z. Lately this has happened every other day or	SO.	
6785	1900z	03 Aug	QRN5 End ukn	Ggs	FRI
	1900z	06 Aug	QRN5 End ukn Buried in QRN.	Ggs	MON
	1900z	15 Aug	QRN5 End 1934z	Ggs	WED
6854	2200z	01 Aug	[25112 31132 14372] QRN4 / QRN4 End 2226z (Simulcast on 7519kHz)	Ggs	WED
	2215z*	15 Aug	Switched from 6932kHz until 2234z	Ggs	WED
	2200z	22 Aug	QRN5 End 2234z	Ggs	WED
	2200z	29 Aug	End 2227z	Ggs	WED
6932	2100z	01 Aug	[40122 26232 30562] QRN3 End 2134z	Ggs	WED
	2100z	02 Aug	[08271 22602 35031] QRN3 End 2134z	Ggs	THU
	2200z*	15 Aug	From 2200z - 2215z then switches to 6854kHz	Ggs	WED

^{*} Graydogs writes; Strange happenings again today. Didn't show up for the 2100z session on 6932kHz. Not much odd about that.

However at 2200z when he should have been on 6854kHz he popped up on the 2100z frequency instead. (I had left one of the radios on the old freq. so caught him by accident). But, as if he finally realized he was on the wrong freq., at 2215z after he finished the first of the three messages he stopped and went over to the correct freq. of 6854kHz where he finished the last two messages.

At 2304z he pops up on correct freq. of 8009kHz, starts late, and sends just one message ending at 2311z which I believe was the first message he sent on the wrong freq. by accident at 2200z

7320	1000z 1000z	06 Aug 20 Aug	[35772 48111 52532] MCW, QSA5, QRM5 China R [47832 51261 63582] QSA4 MCW	adio International.	HT HT	MON MON
7519	2200z 2216z** 2200z 2200z 2200z	01 Aug 03 Aug 08 Aug 24 Aug 29 Aug	[25112 31132 14372] QRN4 / QRN4 End 2226z (In mid-session) QRN3 end 2227z [18122 22441 35772] QRN5 End ukn [50282 63521 76842] End 2226z [56142 60461 72701] End 2234z	(Simulcast on 6845kHz)	Ggs Ggs Ggs Ggs Ggs	WED FRI WED FRI WED
7526	2200z 2200z	07 Aug 14 Aug	[26231 30662 43081] QRN4 End 2227z [83451 05772 18112] QRN5 End 2227z		Ggs Ggs	TUE TUE
7554	2000z 2015z**	01 Aug 03 Aug	[68251 72572 85011] QRN4 End ukn (In mid-session) QRN4 End 2034z		Ggs Ggs	WED FRI

^{**}Graydogs writes; M08a did not show up on 7554kHz for the 2000z (03 Aug) session. Didn't think much of it but left radios on in case it started late. Around 2015z he popped on the air in the middle of the session. I would have blamed it on my radio except I had two radios parked on that frequency.

There was no 2100z session but when it came time for the 2200z session the same thing happened. This time he popped up at 2216z in full swing. Again two radios and two decoders (Fldigi & Digital Master) copied the same thing. Back to normal with the 2300z session.

2000z	07 Aug	[66621 01251 ?1562] OSA1 OSB5	HT	TUE
2000z	15 Aug	QRN4 End 2034z	Ggs	WED
2000z	17 Aug	QRN5 End ukn	Ggs	FRI
2000z	24 Aug	End 2034z	Ggs	FRI

7579	1300z 1300z 1300z 1300z 1300z 1300z 1300z 1300z	01 Aug 03 Aug 06 Aug 07 Aug 21 Aug 24 Aug 29 Aug 29 Aug	[07372 11612 34031] QRN3 End 1334z Rpt at 1400z [03561 37621 47661] QRN3 End 1334z [38372 42601 64031] QSA5 [70181 83422 06841] QSA5 [????? 50521 63042] (session repeated at 1400z) QRN5 End 1334z End 1334z [87261 01582 14821] QSA5	Ggs Ggs HT HT Ggs Ggs Ggs HT	WED FRI MON TUE TUE FRI WED WED
8009	2300z 2300z 2200z 2304z 2200z 2300z	01 Aug 01 Aug 02 Aug 15 Aug 16 Aug 27 Aug	[14372 25112 31132] QSA 4, QRM 4 [25112 31132 14372] QRN2 End 2326z (Rpt of 6854kHz, 2200z) [08271 22602 35031] QRN4 End 2234z (Rpt of 6932kHz, 2100z) End 2311z (* See notes for 6932kHz 15 Aug) End ukn [62032 74361 07682] End 2334z	HT Ggs Ggs Ggs Ggs	WED WED THU WED THU MON
8096	1400z 1400z 1400z 1400z 1359z	03 Aug 06 Aug 07 Aug 08Aug 20 Aug	[03561 37621 47661] QRN3 End 1434z (Rpt of 7579kHz, 1300z) [38372 42601 64031] QRN5 End 1434z Buried in QRN / QSA4 [70181 83422 06841] QSA4 QSB3 QRN5 End 1434z [22182 35421 47744] End 1433z	Ggs Ggs/HT HT Ggs Ggs	FRI MON TUE WED MON
8097	1759z 1900z 1800z	06 Aug 22 Aug 24 Aug	[37331 41652 54181] QSA1 QSB4 QRN5 End 1934z	HT Ggs Ggs	MON WED FRI
8135	2200z 2300z 2303z	03 Aug 10 Aug 17 Aug	[41631 54052 66782] QRN3 End 2327z Good copy End 2327z xmitter problems end or dropped out at 2327z	Ggs Ggs Ggs	FRI FRI FRI
9112	1000z	12 Aug	End 1034z	Ggs	SUN
9120	1000z	03 Aug	QRN5 End ukn	Ggs	FRI
10445	0300z	02 Aug	QRN4 End 0305z	Ggs	THU

Graydogs notes; M08a started on time but then stopped suddenly after only a few groups. After about 90 sec. transmission picked up again but suddenly stopped at 03:05:32z and never returned. Entire session below.

*2345 67890 1234\$7282 <VE>1511 04042 77282 815E ****

(SUDDEN STOP. NO CODE FOR ABOUT 90 SEC.)

282 *** ** ***77282 77282 77282 77282 77282 <BT> <BT> E *

 $8276\ 84605\ 38531\ 33124\ 43801\ 58584\ 18307\ 14601\ 74232\ 87270\ 61185\ 74523$ $82628\ 83325\ 28050\ 18522\ 04804\ 01614\ 61773\ 40206\ 12528\ 03460\ 81147\ 85S02$ $25263\ 30452\ 00686\ 40E31\ 73600\ 4468S\ 17815\ 13201\ 07556\ 06565\ 73807\ L29$

(SUDDEN STOP @ 03:05:32z)

0300z 30 Aug [????? 20511 33042] End 0234z Ggs THU

11565 0400z 01 Aug QRN3 End 0434z Ggs THU

M08cM08dNo reportsNo reports

 $\underline{\textbf{M12}} \;\; \textbf{IB} \;\; \textbf{ICW}, \, \text{some MCW} \, / \, \textbf{CW}, \, \text{short 0.} \; \text{Reuses many freqs year on year.}$

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

Fritz (FN) has supplied us with an almost complete set of logs for M12 for this period - Thanks Fritz

July 2012:

6857/7557/	0430/0450/0510z	02 Jul	850 000	FN	MON
	0430/0450/0510z	09 Jul	850 000 (0450z weak signal, QRM dig. station)	FN	MON
	0430/0450/0510z	16 Jul	850 000 (0450z weak signal)	FN	MON
	0430/0450/0510z	23 Jul	850 000	FN	MON
7984/9184/	0630/0650/0710z	05 Jul	911 000	FN	THU
	0630/0650/0710z	12 Jul	911 000	FN	THU
	0630/0650/0710z	26 Jul	911 000	FN	THU
8047/6802/5788	1700/20/40z	04 Jul	463 1 (2226 41) 49639	FN	WED
	1700/20/40z	11 Jul	463 1 (2538 92) 57888	FN/RNGB	WED
	1700/20/40z	18 Jul	463 1 (8462 56) 44223	FN	WED
	1700/20/40z	25 Jul	463 1 (1997 73) 55458	FN	WED

9176/7931/6904	1700/20/40z 1800/20/40z	02 Jul 02 Jul	257 1 (4236 70) 43644 257 1 (7569 66) 30029 (weak signal)	FN/HFD FN	MON MON
	1900/20/40z	02 Jul	257 1 (1076 81) 25174 (1940z V. strong)	FN	MON
	1700/20/40z	05 Jul	257 1 (1070 61) 25174 (15402 V. shong) 257 1 (4894 79) 96455	FN	THU
	1900/20/40z	05 Jul	257 1 (4894 79) 90455 257 1 (7811 53) 81435	FN	THU
		09 Jul		FN	
	1700/20/40z		257 1 (9300 72) 54084		MON
	1800/20/40z	09 Jul	257 1 (8316 69) 28755	FN	MON
	1900/20/40z	09 Jul	257 1 (6915 46) 72571	FN	MON
	1900/20/40z	12 Jul	257 1 (4340 60) 44729	FN	THU
	1700/20/40z	16 Jul	257 1 (5683 79) 77615	FN	MON
	1800/20/40z	16 Jul	257 1 (1109 40) 33249 (1840z weak signal, strong QRM)	FN	MON
	1900/20/40z	16 Jul	257 1 (5188 94) 00261	FN	MON
	1700/20/40z	19 Jul	257 1 (4960 60) 77011 (1740z Vy weak signal and QRM	FN	THU
	1900/20/40z	19 Jul	257 1 (5000 54) 64959	FN	THU
	1700/20/40z	23 Jul	257 1 (1929 80) 00381 (1740z Weak signal, QRM)	FN	MON
	1800/20/40z	23 Jul	257 1 (5556 44) 44971 (1840z Weak signal, QRM)	FN	MON
	1900/20/40z	23 Jul	257 1 (9668 50) 38865	FN	MON
	1700/20/40z	26 Jul	257 1 (8670 54) 71856	FN	THU
	1900/20/40z	26 Jul	257 1 (6575 51) 44000 Stops 1905z, repeats intro and then finishes txt	FN	THU
9379/7979/	2100/20/40z	04 Jul	398 000	FN/HFD	WED
	2100/20/40z	11 Jul	398 000	FN/RNGB	WED
9379/7979/(6879)	2100/20/40z	18 Jul	398 1 (946 119) 84581	FN	WED
	2100/20/40z	25 Jul	398 000	FN	WED
10343/9264/8116	1830/1850/1910z	04 Jul	124 1 (1733 55) 95573	FN	WED
	1700/20/40z	05 Jul	124 1 (3865 80) 22353	FN/HFD	THU
	1800/20/40z	05 Jul	124 1 (2775 72) 12854	FN	THU
	1800/20/40z	06 Jul	124 1 (9296 77) 55688	FN	FRI
	1830/1850/1910z	10 Jul	124 1 (4842 64) 62716 (1840z faulty keying after minute 2)	FN	TUE
	1700/20/40z	12 Jul	124 1 (2615 77) 55343	FN	THU
	1800/20/40z	12 Jul	124 1 (9824 100) 93914	FN	THU
	1800/20/40z	13 Jul	124 1 (7621 91) 45726	FN	FRI
	1830/1850/1910z	17 Jul	124 1 (3829 69) 90996	FN	TUE
	1700/20/40z	19 Jul	124 1 (5132 71) 37190	FN	THU
	1800/20/40z	19 Jul	124 1 (4698 62) 34584	FN	THU
	1800/20/40z	20 Jul	124 1 (2566 88) 32194	FN	FRI
	1700/20/40z	26 Jul	124 1 (3112 73) 95825	FN	THU
	1800/20/40z	26 Jul	124 1 (2068 55) 87246	FN	THU
	1000/20/102	20041	12.11 (2000 00) 072.10111		1110
10843/9243/	1830/1850/1910z	01 Jul	828 000	FN	SUN
10843/9243/7843	1830/1850/1910z	04 Jul	828 1 (634 195) 74425	FN	WED
100 13/72 13/70 13	1830/1850/1910z	06 Jul	828 1 (634 195) 74425 (Repeat of 4 Jul. 1830z)	FN/RNGB	SUN
	1830/1850/1910z	11 Jul	828 000	FN	WED
	1830/1850/1910z	15 Jul	828 000 828 000	FN	SUN
		18 Jul	828 1 (366 163) 41943 (1830z & 1850z weak signal)	FN	WED
	1830/1850/1910z				SUN
	1830/1850/1910z	22 Jul	828 1 (366 163) 41943 (Repeat of 18 Jul 1830z)	FN FN	
	1830/1850/1910z	25 Jul	828 1 (876 139) 72327	FIN	WED
11435/10598/9327	1830/1850/1910z	04 Jul	938 1 (5713 52) 20709	FN	WED
11433/10396/9321	1830/1850/1910z	11 Jul	· · · · · · · · · · · · · · · · · · ·	FN	WED
			938 1 (4137 70) 98781 038 1 (2267 51) 51366 (1010 strang OPM PC)		
	1830/1850/1910z	18 Jul	938 1 (2267 51) 51366 (1910z strong QRM BC)	FN	WED
	1830/1850/1910z	25 Jul	938 1 (5823 59) 27750	FN	WED
12162/11566/10711	1600/20/40z	02 Jul	546 1 (1347 73) 59468	FN/HFD	MON
12102/11300/10/11	1600/20/40z	02 Jul	546 1 (7033 84) 62829	FN	MON
	1600/20/40z	16 Jul	546 1 (3272 80) 89965	FN	MON
	1600/20/40z	23 Jul	546 1 (3053 95) 57905	FN	MON
	1000/20/402	23 Jul	340 I (3033 93) 37903	ΓIN	MON
13926/12126/	1310/30/50z	05 Jul	919 000	HFD	THU
13920/12120/	1310/30/50z	21Jul	919 000 (1330z Weak sig)	FN	SAT
	1310/30/302	21341	717 000 (13302 Weak sig)	111	SAI
13972/13472/11472	1300/20/407	02 Jul	944 1 (673 89) 90152	FN/HFD	MON
137/2/134/2/114/2	1300/20/402	02 Jul	944 1 (794 103) 67616	FN/HFD	MON
	1300/20/402			111/11111	
	1300/20/40z			EN	
	1300/20/40z	16 Jul	944 1 (810 167) 16751 (1340z weak signal)	FN FN	MON MON
				FN FN	MON
14492/13392/11092	1300/20/40z 1300/20/40z	16 Jul 23 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889	FN	MON
14492/13392/11092	1300/20/40z 1300/20/40z 1500/20/40z	16 Jul 23 Jul 04 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z)	FN FN	MON WED
14492/13392/11092	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z	16 Jul 23 Jul 04 Jul 11 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z)	FN FN FN/RNGB	MON WED WED
14492/13392/11092	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z)	FN FN FN/RNGB FN	MON WED WED WED
14492/13392/11092	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z	16 Jul 23 Jul 04 Jul 11 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z)	FN FN FN/RNGB	MON WED WED
	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul 25 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z) 944 1 (232 309) 61889 (2nd & 3rd sending start time offset)	FN FN/RNGB FN FN	MON WED WED WED WED
14492/13392/11092 14869/13569/12169	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 2110/30/50z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul 25 Jul 04 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z) 944 1 (232 309) 61889 (2nd & 3rd sending start time offset) 851 1 (189 167) 28657	FN FN/RNGB FN FN FN	MON WED WED WED WED WED
	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 2110/30/50z 2110/30/50z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul 25 Jul 04 Jul 11 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z) 944 1 (232 309) 61889 (2nd & 3rd sending start time offset) 851 1 (189 167) 28657 851 000	FN FN/RNGB FN FN FN FN FN FN/RNGB	MON WED WED WED WED WED WED
	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 2110/30/50z 2110/30/50z 2110/30/50z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul 25 Jul 04 Jul 11 Jul 14 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z) 944 1 (232 309) 61889 (2nd & 3rd sending start time offset) 851 1 (189 167) 28657 851 000 851 000	FN FN/RNGB FN FN FN FN/RNGB FN FN/RNGB	MON WED WED WED WED WED WED SAT
	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 2110/30/50z 2110/30/50z 2110/30/50z 2110/30/50z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul 25 Jul 04 Jul 11 Jul 14 Jul 18 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z) 944 1 (232 309) 61889 (2nd & 3rd sending start time offset) 851 1 (189 167) 28657 851 000 851 000 851 000	FN FN/RNGB FN FN FN FN/RNGB FN FN/RNGB FN	MON WED WED WED WED WED SAT WED
	1300/20/40z 1300/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z 2110/30/50z 2110/30/50z 2110/30/50z	16 Jul 23 Jul 04 Jul 11 Jul 18 Jul 25 Jul 04 Jul 11 Jul 14 Jul	944 1 (810 167) 16751 (1340z weak signal) 944 1 (372 309) 61889 944 1 (673 89) 90152 (Repeat of 02 Jul 1300z) 944 1 (794 103) 67616 05090 (Repeat of 09 Jul 1300z) 944 1 (810 167) 16751 (Repeat of 16 Jul 1300z) 944 1 (232 309) 61889 (2nd & 3rd sending start time offset) 851 1 (189 167) 28657 851 000 851 000	FN FN/RNGB FN FN FN FN/RNGB FN FN/RNGB	MON WED WED WED WED WED SAT

August 2012:

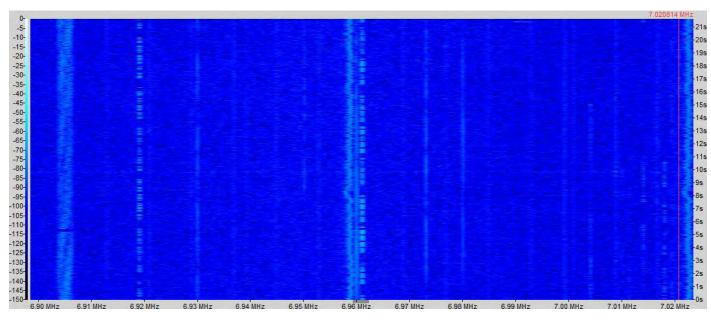
rugust 2012.					
5792/6992/	0430/0450/0510z 0430/0450/0510z	06 Aug 20 Aug	796 000 796 000	BR FN	MON MON
7484/8184/	0630/0650/0710z 0630/0650/0710z	02 Aug 23 Aug	402 000 402 000	BR RNGB	THU THU
8047/6802/5788	1700/20/40z 1700/20/40z 1700/20/40z	08 Aug 15 Aug 29 Aug	463 1 (9376 89) 15799 463 1 (8535 49) 06075 463 1 (1082 60) 10734	FN FN FN	WED WED WED
8123/6923/	2100/20/40z 2100/20/40z 2100/20/40z	08 Aug 15 Aug 22 Aug	198 000 198 000 198 000	FN FN/RNGB FN	WED WED WED
9176/7931/6904	1700/20/40z 1800/20/40z 1900/20/40z 1700/20/40z 1700/20/40z 1700/20/40z 1800/20/40z 1700/20/40z 1700/20/40z 1900/20/40z 1700/20/40z 1800/20/40z 1900/20/40z 1900/20/40z 1900/20/40z 1700/20/40z 1800/20/40z 1800/20/40z 1800/20/40z 1900/20/40z 1900/20/40z	06 Aug 06 Aug 06 Aug 09 Aug 09 Aug 13 Aug 13 Aug 16 Aug 20 Aug 20 Aug 21 Aug 21 Aug 22 Aug 23 Aug 24 Aug 25 Aug 27 Aug 27 Aug 27 Aug	257 1 (9894 76) 04192 257 1 (3979 46) 37654 257 1 (1258 60) 80168 257 1 (7161 66) 10701 (1740z heavy QRM dig. station) 257 1 (4829 50) 17094 257 1 (1946 72) 90024 257 1 (7834 54) 17016 257 1 (9144 87) 31480 257 1 (1757 46) 08779 257 1 (8690 38) 71565 257 1 (3584 74) 91076 257 1 (5969 60) 96137 257 1 (4096 81) 25821 257 1 (7216 66) 29298 257 1 (2616 77) 55656 (1700z call up garbled) 257 1 (7056 63) 01877 257 1 (9714 48) 93071	FN FN FN FN FN FN FN/Jeanmo FN	MON MON THU THU MON MON THU THU MON MON THU MON MON MON MON THU MON MON MON
10343/9264/8116	1800/20/40z 1830/1850/1910z 1700/20/40z 1800/20/40z 1800/20/40z 1700/20/40z 1800/20/40z 1800/20/40z 1830/1850/1910z 1800/20/40z 1800/20/40z 1800/20/40z 1830/20/40z 1830/20/40z	03 Aug 07 Aug 09 Aug 09 Aug 10 Aug 16 Aug 17 Aug 21 Aug 23 Aug 24 Aug 28/8	124 1 (2287 85) 83970 124 1 (9488 70) 13946 124 1 (3738 72) 34286 124 1 (3782 75) 25863 124 1 (5676 900 73051 124 1 (2051 77) 63253 124 1 (9731 54) 79654 124 1 (3168 88) 35915 56697 82964 1847z Strong 124 1 (2433 57) 89086 124 1 (3821 55) 34467 124 1 (1677 84) 59779 124 1 (1708 54) 41253 15237 1835z Strong	FN FN FN FN FN FN/Jeanmo FN/Hans FN FN FN FN FN FN FN FN Hans	FRI TUE THU THU FRI THU FRI TUE THU FRI TUE THU FRI TUE
11435/10598/9327	1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z	08 Aug 15 Aug 22 Aug 29 Aug	938 1 (2959 55) 77901 938 1 (1730 68) 67268 1830z all is repeated after an interruption 938 1 (9047 64) 78014 938 1 (4284 60) 70860	FN FN FN FN	WED WED WED
12162/11566/10711	1600/20/40z 1600/20/40z 1600/20/40z 1600/20/40z	06 Aug 13 Aug 20 Aug 27 Aug	546 1 (6225 81) 54784 546 1 (7972 83) 15452 546 1 (6678 80) 71552 546 1 (9074 86) 75241	FN FN FN FN	MON MON MON MON
13369/12179/	2110/30/50z 2110/30/50z 2110/30/50z 2110/30/50z 2110/30/50z 2110/30/50z	04 Aug 08 Aug 11 Aug 15 Aug 22 Aug 25 Aug	314 000 314 1 (992 133) 09506 314 1 (992 133) 09506 (Repeat of 08 Aug 2110z) 314 000 314 1 (428 59) 89725 314 1 (428 59) 89725 (Repeat of 22 Aug 2110z)	FN FN FN/RNGB FN/RNGB FN	SAT WED SAT WED WED SAT
13918/12218/10818	1500/20/40z 1500/20/40z 1500/20/40z 1500/20/40z	08 Aug 15 Aug 22 Aug 29 Aug	991 1 991 1 (181 141) 80745 (Repeat of 13 Aug 1300z) 991 000 991 1 (696 77) 61014	FN FN FN/RNGB FN	WED WED WED
13984/12184/10384	1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z 1830/1850/1910z	05 Aug 08 Aug 12 Aug 15 Aug 19 Aug 22 Aug 26 Aug 29 Aug	913 1 (210 85) 44692 (1830z Vy strong signal) 913 1 (269 157) 25403 913 1 (269 157) 25403 (Repeat of 08 Aug 1830z) 913 000 913 000 913 000 913 000 913 000 913 1 (453 219) 95566	FN FN FN FN RNGB FN FN FN	SUN WED SUN WED SUN WED SUN WED
14468/13568/	1310/30/50z 1310/30/50z 1310/30/50z 1310/30/50z	04 Aug 09 Aug 11 Aug 16 Aug	451 000 451 000 451 000 451 000	FN FN FN FN	SAT THU SAT THU

	1310/30/50z	18 Aug	451 000	FN	SAT
	1310/30/50z	23 Aug	451 1 (796 99) 50258 7116156314	FN/RNGB	THU
	1310/30/50z	25 Aug	451 1 (796 99) 50258 (Repeat of 23 Aug 1310z)) FN	SAT
14964/13972/1216	4 1300/20/40z	06 Aug	991 1 (154 185) 75403	FN	MON
	1300/20/40z	13 Aug	991 1 (181 141) 80745	FN	MON
	1300/20/40z	27 Aug	991 1 (696 77) 61014	FN	MON
M12a (two messa No Reports	ge variant)				
<u>M14</u> IA MCW / I	CW / MCWCC, short	0			
6856	1820z	10 Jul	163 (968 15) = 53728 53920 15272 76987 29436	37286 RNGB	TUE
	1820z	14 Aug	163 (803 15) =	GD	TUE
	1820z	28 Aug	163 (803 15) = 83920 43829 51839 283053925	3 MCW Hans/RNGB	TUE
9085/9395	0700/0800z	10 Jul	576 00000	RNGB	TUE
M14a (two messa No reports	ge variant)				
M18 IC Time stri	ngs, UTC+4				
4503 2037 - 2	2039z (IP) 09 Jul	0001 (In	rogress - sending Time strings - Long zero) (GlobalT	Cuners Hong Kong) JPL	MON
	2059z (IP) 10 Jul	0403 (In	rogress - sending Time strings - Long zero) (GlobalT		TUE
1942z	08 Jul	0042 004	2 0042 (for once a good signal)	FN	SUN
<u>M23</u> O ICW					
Just as the last Nev	vsletter was going to p	ress, RNGB	ound this sched on 26 June;		
5440 // 7437	0701 - 0716z (IP)	26 Jun	[555] No message	RNGB	TUE
	1500 -	26 Jun	[555] No message	RNGB	TUE
	0654 - 0716z	28 Jun	[555]	RNGB	THU
5438kHz	0701 - 0716z	28 Jun	[555] Fair	DoK, PLdn	THU
7436kHz	0654 - 0716z	28 Jun	[555] Weak until 0701z then Very s		THU
			[Tx left in tune up mode] Ton	es 2m30s after end.	

Unfortunately, that was the last that was heard of this sched. Either short-lived or found late, it failed to continue into July.

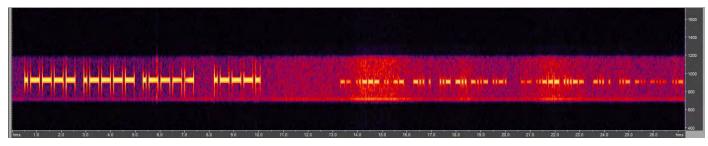
August 2012:

6961	1925z (IP) 1923 - 1942z	06 Aug 08 Aug	[111 111 111] [111 111 111] Strong	FN BR/DoK	MON WED
	AB reported the st	ation on the air duri	ng the past 4 days on both 6961 and 9886kHz from ca 1920 - 19	43 UTC. Sending nothing but	111 111
6961//9886	1923 - 1942z	09 Aug	[111 111 111] Strong on 6961, fair on 9886	AB/BR/Dok/PLdn	THU



09 Aug12 M23 in progress on 6961kHz . Courtesy PLdn

Immediately following the end of the 6961kHz transmission some weak CW was heard briefly. A recording by PLdn showed this to read 'M23 DE UDXF' sent twice. PLdn comments that it was good that no E2k personnel saw fit to send this.



09 Aug12 Ending of 6961kHz 1942z of which PLdn stated, "M23 de UDXF" is not the sort of 'professionalism' I'd like to see from E2k" Courtesy PLdn

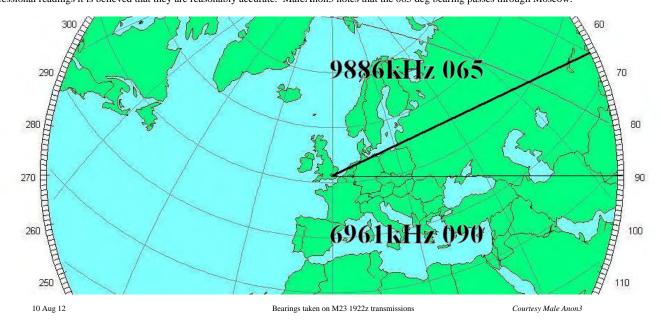
961//9886 1922 - 1942z

10 Aug

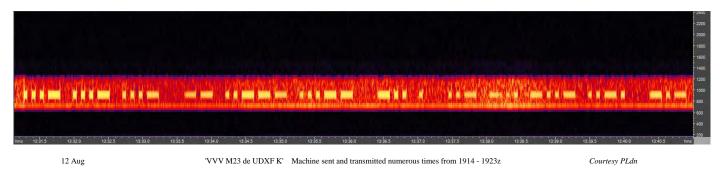
[111 111 111 ...] Strong on 6961, fair on 9886

AB/BR/DoK/PLdn

We have received a set of bearings on the 10 Aug transmissions for both frequencies from Male Anon in the UK. It should be noted that whilst these are not professional readings it is believed that they are reasonably accurate. MaleAnon3 notes that the 065 deg bearing passes through Moscow.



And just as we were all starting to get into monitoring mode for M23 - it disappeared once again. The station failing to appear on Sat 11 & Sun 12 leaving us all listening to the sound of dead air, static and the blank carrier just LF of 6961kHz... ... at least it would have been, but for the poor individual with a tuned-down amateur transceiver sending "VVV M23 DE UDXF K" repeatedly from 1914 - 1923z with a very weak signal, ending finally with a QRU K.



Even IF M23 were listening, and IF they could even hear him (they most likely couldn't), does he really think that they are going to reply! It is fairly certain that other agencies were listening though and they probably already have a good idea where he is...

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

8167	1800z	02 Jul	??? (146 230)	Speed some 25 wpm.	Gert	MON
Possible	repeat of the 17.00z C	W sending on 10423kH	z, but not sure of that.			
9073 9073	1900z 1900z	10 Jul 19 Jul	975 (340 112) = 975 (268 115) =	6627708108 62161 77412	RNGB Gert	TUE THU

77094 77094 14048 14048 51904 51904 25906 25906 40823 40822 71499 71499 88215 88215 27619 27619 24679 24679 39811 39811 37697 37697 28624 28624 67521 67521 92242 92242 36557 36557 34454 34454 94457 94457 16515 16515 09305 09305 72215 72215 38835 38835 43507 43507 06019 06019 45703 45703 61599 61599 62783 62783 73710 73710 60933 60933 22696 22696 98363 98363 28942 28942 58025 58025 84215 84215 43192 43192 23915 23915 10362 10362 49961 49961 75735 75735 23194 23194 76975 76975 71131 71131 07140 07140 33270 33270 19099 19099 72804 72804 32398 32398 52133 52133 16806 16806 80908 80908 83959 83959 31067 31067 46690 46690 54369 54369 11213 11213 65818 65818 06520 06520 52120 52120 34292 34292 59371 59371 97798 97798 89664 89664 45627 45627 23470 23470 02177 02177 64874 64874 57698 57698 11112 11112 12645 12645 57715 57715 20410 20410 97179 97179 05451 05451 33586 33586 56531 56531 49409 49409 63679 63679 04959 04959 88647 88647 56872 56872 88428 88428 31003 31003 56046 56046 08171 08171 58517 58517 59894 59894 44986 44986 36519 36519 24671 24671 43476 43476 80776 80776 73919 73919 49114 49114 78981 78981 55122 55122 81593 81593 26512 26512 57485 57485 87143 87143 48883 48883 47197 47197 23789 23789 41545 41545 77787 77787 88617 88617 77412 77412 == 268 268 115 115 00000 Courtesy Gert 10423 1700z + (IP)02 Jul Ended with a DK and GC, followed by 00000 (TTTTT). Gert MON (I think it was M24 as sending was pretty fast - like 25 wpm). Possible starting time 17.00z. 10755 1700z 11 Jul 975 (706 23) =93548 09654 46048 20688.....54247 **RNGB** WED M24a as M24 with 2nd addressee hand keyed, rarely intercepted. No reports M45/3 XIV (May/Aug) MCW, slow, hand, paired grps Will change to M45/2 sched ID 555 at 1802z for Sept - Oct 5874//5474 1700z Carrier heard several times on both freqs. No other transmission heard AB TUE 07 Aug AB wondered if M45 had some problems. He reports; While waiting for M45 I heard on 5074 kHz a carrier being switched on and off several times and some chirps between 1655 and 1713 UTC but nothing else. Nothing on 5474 kHz. A carrier was then heard on 5474 kHz from 1716 to 1722 UTC. No other transmissions were heard. 5075 1703z (IP) 16 Aug Very strong signal in Herne, Germany Jeanmo THU 5074 1702z 16 Aug 074 (702 31) GD THU 1702-1707z 5074 28 Aug carriers off and on TUE AB 5474 1704z A couple of figures. I think 702 00 Problems again? TUE 28 Aug AB M50 XIV MCW No reports M51 5895 19477 NR 24 A 08 21:47:32 1984. Still sending 09 Aug, ended 0800z mid message GD WED 08 Aug (New designation - see article at start of Morse Round-up) M51a 6825 0715z (IP) - 0726z 05 Aug BR Plain French text, (text book transcript?) Ending CQ DE FAV22 VA SUN 3881//6825 0655 - 0725z Call-up followed by French text mixed with numbers Weak BR/GD SUN 12 Aug VVV VVV DE FAV22 FAV22 FAV22 Q . . 3881/6825KHz 06557 0700zPlain French text mixed with numbers - Slow CW Ends text with AR CQ DE FAV22 VA 0725z Signal started very weak, improving towards the end of transmission. <u>M55</u> O No reports M62 O No reports

Message details (full message, 0 send as T):

268 268 115 115 ==

62161 62161 29928 29928 22951 22951 83938 83938 17875 17875 05718 05718 26575 26575 18323 18323 35472 35472 43873 43874

9073kHz1900z19 July

975 975 975 (R5)

M76 O No reports July 2012

GT = Global Tuners (Online remotely controlled receivers)

JPL

JPL

JPL

JPL

JPL

JPL

JPL

JPL

MON

WED

WED

WED

WED

THU

THU

FRI

JPL has	managed	to log more	two-way CW	Op. chat.	This time on 8013kHz - not a regular M89 frequency.		
8013	0040 -	0055z	26 Jul	(In chat	- msg sent) (GT Hong Kong)	JPL	TH
				(Both st	ations on the same freq!)		
			(0040z)	7G NR 1 Y K R .5DU 7U 4NUD E 546U 53 AR QS R RPT 2 VV (005	GAK R GA R R AS R R R R R R R GA R R 233 CK 30 42 0726 2043 RMKS 4553 TO 432 SY K (0043z) R RR 7G G R GA R R BT BT IDT 57U3 AD5D 475N 634U 5A6T 5UA6 A5UN 6AN5 45T TNA5 UD34 UNN3 ANDU AT6D N5TD 6TUN 5A3N U7 4A63 AD4T A6TD 7U64 43UN 7364 UAD3 3465 IL ? K R RPT 26W K R R RPT 26W BT K BT 198IO. AEEEE RPT 26W K R R RPT 26W BT 7U64 K R RPT 26W K 8z) V V UH (0059z) QSL ? K R RPT 26W K R R GA RPT 01z) (Silent) (Monitored until 0119z)		
3013	0014 -	0100z	27 Jul	(In chat	msg sent) (GT Hong Kong)	JPL	FR
					en checking this freq on and off since 0007z)		
			(0014z)	*MSG N	R 1042* CK 75 42 0827 0815 BT (X2)		
					U356 (Cont'd) (Machine sent) AR (0018z) 6Z) 74 (0039z)		
			(0040z)	,	6 AU34 56 (Hand sent) 456 (0040z) (Monitored until 0100z)		
8013	0211 -	0242z	27 Jul	(In chat	msg sent) (GT Hong Kong)	JPL	FR
			(0210z) (0222z)	*MSG N 73.T A.I	d) BT V (Cont'd) (0213z) 4. O8.71 (As luck would have it, lost the sound just before msg s R 1043* CK 75 .27 1015 (0219z) MSG NR 1043 CK 75 42 072 DT TU4N 46TA N755 UD6D 4AND 6DT. D.35 75NU 34 AN47 T5N7 75AT (Cont'd) AR AR (0222z) (Silent - monit	7 101. BT	
3013	1217 -	1240z	(In chat -	msg sent)	(GT Hong Kong)	JPL	FR
				(In msg	- 1217Z)(Both stations on the same frequency again!)		
			(1217z) (1232z)	OK QSA GA 7C NR 1243 7AAN E OK QSL K OK 6NA5 D U6DU 4	HA15 DE JFSQ* K R R MRR VVV *YUVQ DE 61BO* K K 2 K R HR WK NR 404 K OK HR WK NR 72 K R AS HR 15 NR 1243* CK 30 42 0720 EEE NR 1243 CK 30 42 0727 2040 F CK 30 42 0727 2040 RR OK GA R BT BT NA 1.73D7 U436 5UD6 D7NA UN74 .TNT T3.U TT (Cont'd) A 2043 QSL 2043 K R MSG NR GA K MSG *NR 0623* NR 06 MSG BT 7AAN DN46 73D7 U436 5UD6 A7NA UN74 EEE T33 T37 AD3N U755 545D 37DN N35U T737 76T5 NTUT 7AT 45AU DA5T N 6DNA N544 63DU AN63 AR AR QSL ? KMEB GB (1232z) (Monitored until 1240z)	MSĞ GA K K RPT (1226z) JR 623 CK 30 42 .727 2043 B' U TTUT A675	
The regi	ular M89 l	ogs continu	e below;		GT = Global Tuners	(Online remotely controlle	d receivers
3297// N	NRH	1318 -	1319z	07 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SA
		1558 - 1232 -	1559z	07 Jul 08 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL JPL	SA SU
		1439 -	14407	08 Jul	(In tfc - 4 fig cut nr - very weak - to R/S 1257z) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SU
		2043 -		08 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont.d) (G1 Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont.d) (GT Hong Kong)	JPL JPL	SU
		1200 -		10 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TU
		1715 -		10 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TU
		2056 -		10 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TU
		1513 -	1514z	11 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	W
		1620 -		12 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TH
		1817 -		15 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SU
		2053 -		15 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL IDI	SU
		1427 - 2030 -		16 Jul 16 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL ipi	M(

V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)

V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)

V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)

V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)

V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)

2030 - 2031z

1143 - 1144z

1556 - 1557z

1854 - 1855z

1952 - 1953z

1347 - 1348z

2129 - 2130z

1246 - 1247z

16 Jul

18 Jul

18 Jul

18 Jul

18 Jul

19 Jul

19 Jul

20 Jul

```
1827 - 1828z
                                       21 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SAT
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                   2129 - 2130z
                                       21 Jul
                                                                                                                     JPL
                                                                                                                                         SAT
                                                 (In tfc -4 fig cut nr) AR V GKVZ (x3) DE Q7NW (x2) (Cont'd)
                   1241 - 1242z
                                       22 Jul
                                                                                                                                         SUN
                                                                                                                     JPL
                   2027 - 2028z
                                       22 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         SUN
                   1936 - 1937z
                                       23 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         MON
                   2058 - 2059z
                                       23 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         MON
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                   1842 - 1843z
                                       24 Jul
                                                                                                                     JPL.
                                                                                                                                         TUE
                   2029 - 2030z
                                       24 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         TUE
                   1212 - 1213z
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                       26 Jul
                                                                                                                     JPL
                                                                                                                                         THU
                   1333 - 1334z
                                       26 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         THU
                                       26 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                   1738 - 1739z
                                                                                                                     IPI.
                                                                                                                                         THU
                   2049 - 2050z
                                       26 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         THU
                   1151 - 1152z
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                       27 Jul
                                                                                                                     JPL
                                                                                                                                         FRI
                   1441 - 1442z
                                       27 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         FRI
                   2126 - 2127z
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                       28 Jul
                                                                                                                     JPL.
                                                                                                                                         SAT
                   1430 - 1431z
                                       29 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                                         SUN
                                                                                                                     JPL
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                   1743 - 1744z
                                       29 Jul
                                                                                                                     JPL
                                                                                                                                         SUN
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                   1541 - 1542z
                                       30 Jul
                                                                                                                     IPI.
                                                                                                                                         MON
                   1739 - 1740z
                                       30 Jul
                                                 V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         MON
                   0950 - 1019z
                                       30 Jul
                                                 (In chat) (GT Hong Kong)
                                                                                                                      JPL
                                                                                                                                         MON
                                       (0950z)
                                                MSG GA KKKKK FM 5M E QIE QSL .1111 K R HR HR MSG k K
                                                 DU7U HILHRGHRHR M HR ME 7.A FM 7A FM AI. NU4 NU4 DU5E ////////////////////(Cont'd (0951z)
                                                 U 'e eh c//1N . . E AADADADU3U3U3 BT 33 DE PE WPPPPP.PPPP. AR AR AR AR AR AR AR AR
                                                 ..TU DF N. K K WWKKWWKKWKKWK EE BT E E 13UD63AD6DE
                                                 EITN AA N AANANANA..ANNANNANNANPPXE 5 NRE7UE 5 E HR NR 124 K
                                                 HR NR 124 TT TT .. DDEDE DE BBBBN QSL QSL QSL 1234 K GA GA GA GA GA GA GA (0954z)
                                                 UUMU MU U U MSG GA UMSG . 73 FM A E U MSG AGA UMSG A K U MS A GA K
                                                 US UMS E 7U MSG GA U MSG GA U MSG GA K RR U 120 MGA K 124 M GA RE
                                                 X X QS. N QSY 80 NR 182 K RRKKRAIRR HHDHRNR 124 K RRUMSG GA K
                                       (1001z)
                                                 R R U 120 GR GA K (0958z) BT (1001z) (Silent – Monitored until 1019z)
3797//4512
                   1301 - 1302z
                                       08 Jul
                                                 V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SUN
                    1442 - 1443z
                                       08 Jul
                                                 V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SUN
                   1202 - 1203z
 (4512 only)
                                       10 Jul
                                                 V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         TUE
                                       11 Jul
                                                 V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                                         WED
 (4512 only)
                   1515 - 1516z
                                                                                                                     IPI.
 (4512 only)
                   1559 - 1600z
                                       18 Jul
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         WED
                   1855 - 1856z
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
 (4512 only)
                                       18 Jul
                                                                                                                     JPL
                                                                                                                                         WED
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
                   1954 - 1955z
 (4512 only)
                                       18 Jul
                                                                                                                     JPL
                                                                                                                                         WED
                   1830 - 1831z
                                       21 Jul
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         SAT
 (4512 only)
                   1216 - 1217z
                                       26 Jul
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         THU
 (4512 only)
                   1428 - 1429z
                                       29 Jul
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SUN
                   1746 - 1747z
                                       29 Jul
 (4512 only)
                                                 V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         SUN
4225//5500
                   1314 - 1317z
                                       07 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SAT
 (5500 only)
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
 (5500 only)
                   1556 - 1557z
                                       07 Jul
                                                                                                                     JPL
                                                                                                                                         SAT
                   1235 - 1236z
                                       08 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SUN
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                   1435 - 1436z
                                       08 Jul
                                                                                                                     JPL.
                                                                                                                                         SUN
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                   2039 - 2040z
                                       08 Jul
                                                                                                                     JPL.
                                                                                                                                         SUN
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                   1147 - 1148z
                                       10 Jul
                                                                                                                     JPL
                                                                                                                                         TUE
                    1709 - 1710z
                                       10 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                                         TUE
                                                                                                                      JPL
                   2051 - 2052z
                                       10 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GTs Hong Kong)
                                                                                                                     JPL
                                                                                                                                         TUE
 (4225 only)
                   1117 - 1119z
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                       11 Jul
                                                                                                                     JPL.
                                                                                                                                         WED
                   1511 - 1512z
                                       11 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         WED
                   2125 - 2126z
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                       11 Jul
                                                                                                                     JPL.
                                                                                                                                         WED
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
 (5500 only)
                   1107 - 1108z
                                       12 Jul
                                                                                                                     JPL
                                                                                                                                         THU
 (5500 only)
                   1351 - 1352z
                                       12 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         THU
                   1049 - 1050z
                                       13 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         FRI
                   2249 - 2250z
                                       13 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         FRI
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                   1815 - 1816z
                                       15 Jul
                                                                                                                     JPL.
                                                                                                                                         SUN
                   2049 - 2050z
                                       15 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         SUN
                   2109 - 2119z
                                       15 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (Msg sent at 2113z)(GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SUN
                                       (2113z)
                                                VVV UGT COMM BT 9450/0540/G65/4319 AR (Hand sent) V UGT COMM BT 9450/0540/G65/4319
AR (Return to R/S 2114z)
                   1425 - 1426z
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                       16 Jul
                                                                                                                                         MON
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                                         MON
                   2026 - 2027z
                                       16 Jul
                                                                                                                     JPL.
 (5500 only)
                   1140 - 1141z
                                       18 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         WED
                   1552 - 1553z
                                       18 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                                         WED
 (5500 only)
                                                                                                                     JPL
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
 (5500 only)
                   1850 - 1851z
                                       18 Jul
                                                                                                                     JPL.
                                                                                                                                         WED
 (5500 only)
                   1949 - 1950z
                                       18 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         WED
                   1143 - 1144z
                                       19 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
 (5500 only)
                                                                                                                     JPL.
                                                                                                                                         THU
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
 (5500 only)
                   1343 - 1344z
                                       19 Jul
                                                                                                                     JPL.
                                                                                                                                         THU
                   2125 - 2126z
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                       19 Jul
 (5500 only)
                                                                                                                     JPL.
                                                                                                                                         THU
 (5500 only)
                   2309 - 2310z
                                       19 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         THU
 (5500 only)
                   2212 - 2213z
                                       20 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         FRI
 (5500 only)
                   0939 - 0940z
                                       21 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         SAT
 (5500 only)
                   1107 - 1108z
                                       21 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL.
                                                                                                                                         SAT
 (5500 only)
                   1253 - 1254z
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                       21 Jul
                                                                                                                     JPL.
                                                                                                                                         SAT
 (5500 only)
                   1825 - 1826z
                                       21 Jul
                                                 V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)
                                                                                                                     JPL
                                                                                                                                         SAT
```

V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)

1250 - 1251z

21 Jul

JPL

SAT

(5500 only)	2126 - 2127z	21 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	1042 - 1043z	22 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1235 - 1236z	22 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	2018 - 2019z	22 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	2211 - 2212z	22 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1025 - 1026z	23 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
$(5500 \ only)$	1931 - 1932z	23 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	2054 - 2055z	23 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	2251 - 2252z	23 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1053 - 1054z	24 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	1225 - 1226z	24 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	1352 - 1353z	24 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	1835 - 1836z	24 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	2025 - 2026z	24 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	2117 - 2118z	24 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	1012 - 1013z	25 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
$(5500 \ only)$	2142 - 2143z	25 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
$(4225 \ only)$	0939 - 0940z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4225 only)	1210 - 1211z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4225 only)	1329 - 1330z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4225 only)	1734 - 1735z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
,		26 Jul		JPL	THU
(4225 only)	2045 - 2046z		V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)		
(4225 only)	2154 - 2155z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5500 only)	1145 - 1146z	27 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
$(5500 \ only)$	1437 - 1438z	27 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
$(5500 \ only)$	2241 - 2242z	27 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1037 - 1038z	28 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1117 - 1118z	28 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1257 - 1258z	28 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1947 - 1948z	28 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2117 - 2118z	28 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(1005 1)					
(4225 only)	1406 - 1407z	29 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1524 - 1525z	29 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1739 - 1740z	29 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1537 - 1538z	30 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1735 - 1736z	30 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
,					
4590//7607	1320 - 1322z	07 Jul	V WITN (x3) D E GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
1000111001	1602 - 1603z	07 Jul	V WITN (x3) D E GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1310 - 1319z	08 Jul	V WITN (x3) DE GNXG (x2)(Cont'd) (GT Hong Kong) (In tfc)	JPL	SUN
	1310 - 13172		V WITH (AS) DE GIVAG (AZ)(Contu) (GI Hong Rong) (In ije)		BUIL
					D WW
ND 4 (T. D)(0.12	10.)	(1310z)	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5.		R WK
NR .4 (To R/S 13	12z)				R WK
NR .4 (To R/S 13	•	(1310z)	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5.	3.25497 AR QSL? HI	
NR .4 (To R/S 13	1437 - 1438z	(1310z) 08 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	3.25497 AR QSL? HI	SUN
NR .4 (To R/S 13	•	(1310z) 08 Jul 08 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	3.25497 AR QSL? HI JPL JPL	SUN SUN
NR .4 (To R/S 13	1437 - 1438z	(1310z) 08 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	3.25497 AR QSL? HI	SUN
NR .4 (To R/S 13	1437 - 1438z 2041 - 2042z	(1310z) 08 Jul 08 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	3.25497 AR QSL? HI JPL JPL	SUN SUN
NR .4 (To R/S 13	1437 - 1438z 2041 - 2042z	(1310z) 08 Jul 08 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	3.25497 AR QSL? HI JPL JPL JPL	SUN SUN TUE
, ,	1437 - 1438z 2041 - 2042z 1150 - 1159z	(1310z) 08 Jul 08 Jul 10 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong)	3.25497 AR QSL? HI JPL JPL JPL	SUN SUN TUE
NR .4 (To R/S 13	1437 - 1438z 2041 - 2042z 1150 - 1159z	(1310z) 08 Jul 08 Jul 10 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong)	3.25497 AR QSL? HI JPL JPL JPL	SUN SUN TUE
, ,	1437 - 1438z 2041 - 2042z 1150 - 1159z	(1310z) 08 Jul 08 Jul 10 Jul (1151z)	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54	3.25497 AR QSL? HI JPL JPL JPL 83 AR QSL ? HRWK	SUN SUN TUE
36 VHV R HRC C	1437 - 1438z 2041 - 2042z 1150 - 1159z	(1310z) 08 Jul 08 Jul 10 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong)	3.25497 AR QSL? HI JPL JPL JPL 83 AR QSL ? HRWK	SUN SUN TUE
, ,	1437 - 1438z 2041 - 2042z 1150 - 1159z	(1310z) 08 Jul 08 Jul 10 Jul (1151z)	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54	3.25497 AR QSL? HI JPL JPL JPL 83 AR QSL ? HRWK	SUN SUN TUE
36 VHV R HRC C	1437 - 1438z 2041 - 2042z 1150 - 1159z GA	(1310z) 08 Jul 08 Jul 10 Jul (1151z)	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55	3.25497 AR QSL? HI JPL JPL JPL 83 AR QSL ? HRWK	SUN SUN TUE I NR GA
36 VHV R HRC C	1437 - 1438z 2041 - 2042z 1150 - 1159z GA n to R/S)	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z)	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL S3 AR QSL ? HRWK S97 AR QSL ?HRWK	SUN SUN TUE I NR GA K NR GA
36 VHV R HRC 0	1437 - 1438z 2041 - 2042z 1150 - 1159z GA n to R/S) 1713 - 1714z 2054 - 2055z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) 10 Jul 10 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54 NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL 83 AR QSL ? HRWK JPT AR QSL ? HRWK JPL JPL JPL JPL	SUN SUN TUE I NR GA K NR GA TUE TUE
36 VHV R HRC C	1437 - 1438z 2041 - 2042z 1150 - 1159z GA n to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) 10 Jul 10 Jul 11 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL 83 AR QSL ? HRWK 597 AR QSL ?HRWK JPL JPL JPL JPL JPL JPL	SUN SUN TUE I NR GA K NR GA TUE TUE WED
36 VHV R HRC 0	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) 10 Jul 10 Jul 11 Jul 11 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL 83 AR QSL ? HRWK 597 AR QSL ?HRWK JPL JPL JPL JPL JPL JPL JPL JPL	SUN SUN TUE NR GA K NR GA TUE TUE WED WED
36 VHV R HRC 0	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 11 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL S3 AR QSL ? HRWK 597 AR QSL ?HRWK JPL	SUN SUN TUE NR GA K NR GA TUE TUE WED WED WED
36 VHV R HRC 0	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) 10 Jul 10 Jul 11 Jul 11 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL 83 AR QSL ? HRWK 597 AR QSL ?HRWK JPL JPL JPL JPL JPL JPL JPL JPL	SUN SUN TUE NR GA K NR GA TUE TUE WED WED
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36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 12 Jul 13 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MI0 .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL JPL 83 AR QSL ? HRWK 597 AR QSL ?HRWK JPL	SUN SUN TUE I NR GA K NR GA TUE WED WED WED THU FRI
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36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z	08 Jul 08 Jul 10 Jul (1151z) (1151z) (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 12 Jul 13 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL S3 AR QSL ? HRWK 597 AR QSL ? HRWK 597 AR QSL ?HR WI JPL	SUN SUN TUE I NR GA TUE TUE WED WED THU FRI SUN MON MON MON MON WED WED WED WED WED
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36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 13 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul 19 Jul 19 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL S97 AR QSL? HRWK 597 AR QSL? HRWK 597 AR QSL? HRWK JPL	SUN SUN TUE I NR GA TUE TUE WED WED THU FRI SUN SUN MON MON MON WED WED WED THU THU THU
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 12 Jul 13 Jul 15 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL S97 AR QSL? HRWK S97 AR QSL? HRWK JPL	SUN SUN TUE I NR GA K NR GA TUE TUE WED WED THU FRI SUN SUN MON MON MON WED WED WED WED WED THU THU THU
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z	08 Jul 08 Jul 10 Jul (1151z) (1151z) (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 11 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul 20 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/543 NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./553 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL SS AR QSL ? HRWK JPL SS AR QSL ? HRWK SS AR QSL ? HRWK SS AR QSL ? HRWK SS AR QSL ? HR WI JPL	SUN SUN TUE I NR GA K NR GA TUE TUE WED WED THU FRI SUN MON MON MON WED WED WED THU THU THU THU FRI
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1855z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z	08 Jul 08 Jul 10 Jul 1151z) (1151z) (1	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./53 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd)	JPL JPL SS AR QSL ? HRWK JPL JPL SS AR QSL ? HRWK JPL	SUN SUN TUE I NR GA K NR GA TUE TUE WED WED THU FRI SUN MON MON MON WED WED WED THU THU THU THU FRI FRI FRI
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z	08 Jul 08 Jul 10 Jul (1151z) (1151z) (1151z) (1151z) 10 Jul 10 Jul 11 Jul 11 Jul 11 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul 20 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd)	JPL JPL SS AR QSL ? HRWK JPL	SUN SUN TUE I NR GA K NR GA TUE TUE WED WED THU FRI SUN MON MON MON WED WED WED THU THU THU THU FRI
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1855z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z	08 Jul 08 Jul 10 Jul 1151z) (1151z) (1	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./53 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd)	JPL JPL SS AR QSL ? HRWK JPL JPL SS AR QSL ? HRWK JPL	SUN SUN TUE I NR GA K NR GA TUE TUE WED WED THU FRI SUN MON MON MON WED WED WED THU THU THU THU FRI FRI FRI
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z 2214 - 2215z 1108 - 1109z	08 Jul 08 Jul 10 Jul 1151z) (1151z) (1	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54: NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd)	JPL JPL SS AR QSL ? HRWK JPL	SUN SUN TUE I NR GA TUE TUE WED WED THU FRI SUN MON MON MON WED WED THU THU THU THU THU FRI FRI FRI FRI FRI FRI SAT
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z 2214 - 2215z 1108 - 1109z 1254 - 1255z	08 Jul 08 Jul 10 Jul 10 Jul (1151z) (1151z) (1151z) 10 Jul 11 Jul 11 Jul 11 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul 20 Jul 20 Jul 20 Jul 21 Jul 21 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (JPL JPL S97 AR QSL? HRWK JPL	SUN SUN TUE I NR GA TUE TUE WED WED WED THU FRI SUN MON MON WED WED WED THU THU THU THU THU FRI FRI FRI FRI FRI SAT SAT SAT
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z 2214 - 2215z 1108 - 1109z 1254 - 1255z 1826 - 1827z	08 Jul 08 Jul 10 Jul 1151z) (1151z) (1151z) (1151z) 10 Jul 11 Jul 11 Jul 11 Jul 12 Jul 13 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul 20 Jul 20 Jul 20 Jul 21 Jul 21 Jul 21 Jul 21 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (JPL JPL SSTAR QSL? HRWK JPL	SUN SUN TUE I NR GA TUE TUE WED WED WED THU FRI SUN MON MON MON WED WED THU THU THU THU THU FRI FRI FRI FRI FRI FRI FRI SAT SAT
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z 2214 - 2215z 1108 - 1109z 1254 - 1255z 1826 - 1827z 2128 - 2129z	(1310z) 08 Jul 08 Jul 10 Jul (1151z) (1151z) (1151z) 10 Jul 11 Jul 11 Jul 13 Jul 15 Jul 16 Jul 16 Jul 18 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul 20 Jul 20 Jul 21 Jul 21 Jul 21 Jul 21 Jul 21 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (JPL JPL S97 AR QSL? HRWK JPL	SUN SUN TUE I NR GA TUE TUE WED WED WED THU FRI SUN MON MON MON WED WED WED THU THU THU THU THU FRI FRI FRI FRI FRI FRI SAT SAT SAT
36 VHV R HRC (16 (1153z - Return (7607 only)	1437 - 1438z 2041 - 2042z 1150 - 1159z GA In to R/S) 1713 - 1714z 2054 - 2055z 1127 - 1128z 1512 - 1513z 2127 - 2128z 1109 - 1110z 2252 - 2253z 1825 - 1826z 2051 - 2052z 1426 - 1427z 1612 - 1613z 2028 - 2029z 1142 - 1143z 1554 - 1555z 1852 - 1853z 1951 - 1952z 1145 - 1146z 1345 - 1346z 2127 - 2128z 1244 - 1245z 1925z 2214 - 2215z 1108 - 1109z 1254 - 1255z 1826 - 1827z	08 Jul 08 Jul 10 Jul 1151z) (1151z) (1151z) (1151z) 10 Jul 11 Jul 11 Jul 11 Jul 12 Jul 13 Jul 15 Jul 16 Jul 16 Jul 16 Jul 18 Jul 18 Jul 19 Jul 19 Jul 19 Jul 20 Jul 20 Jul 20 Jul 21 Jul 21 Jul 21 Jul 21 Jul	NR 32 221. RMKS 5312 TO 5497 BT 5342 BT COMM. /2.00/NZ2MIO .2/5. V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (2 Msg at 1151z) (GT Hong Kong) NR 040 1945 RMKS 5312/5483/5343 BT COMM/2030/LZ22 M62/5312/54. NR 59 2000 RMKS 5312 TO 5597/5342 BT COMM/2045/LZ22 .A2/531./55 V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (JPL JPL SSTAR QSL? HRWK JPL	SUN SUN TUE I NR GA TUE TUE WED WED WED THU FRI SUN MON MON MON WED WED THU THU THU THU THU FRI FRI FRI FRI FRI FRI FRI SAT SAT

(7607 only)	2212 - 2213z	22 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(70070111))	1102 - 1103z	23 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1934 - 1935z	23 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2056 - 2057z	23 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	2253 - 2254z	23 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1355 - 1356z	24 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
					TUE
(7607 only)	1837 - 1838z	24 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	
(7607 only)	2027 - 2028z	24 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	2125 - 2126z	24 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	2144 - 2145z	25 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1218 - 1219z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1331 - 1332z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1736 - 1737z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2047 - 2048z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2155 - 2156z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1147 - 1148z	27 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1439 - 1440z	27 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	2243 - 2244z	27 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1130 - 1131z	28 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1259 - 1316z	28 Jul	(In tfc - 4 fig cut nr) V WITN (x3) DE GNXG (x2) (Cont'd)	JPL	SAT
		(1259z)	(In tfc - very poor copy)		
			NT3D AT53 N.4D 7A64 F.3N ND64 .5D3 UT36 573N N6U AR QS	L ? HR WK NR	
			28 21.5 RMkS 3WAUM TO 6678 6298 53.8 5.68 BT		
			QRW 6Z02 6292 5342 QRW L16 1200 .P 531ND C		
			QSL ? HR WK NR GA 16 VVV		
			HR SVC GA NR .1 1.5 RMKS 5312 TO 6904/.42 BT		
			COMM/2200/L.220.2/.312/6904 AR QSL ? HR WK NR GA16		
		(1312z)	V WITN DE GNXG (1312z) (Cont'd)		
		(- /	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	1459 - 1500z	28 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1949 - 1950z	28 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2118 - 2119z	28 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1408 - 1409z	29 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
, ,,	1526 - 1527z	29 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1741 - 1742z	29 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1539 - 1540z	30 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1737 - 1738z	30 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
4860// 6840	1320 - 1325z	08 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1719 - 1724z	10 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1520 - 1525z	11 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1820 - 1825z	15 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	2120 - 2125z	15 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1420 - 1425z	16 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	2220 - 2225z	20 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
(6840 0nly)	1825z	21 Jul	VVV Q2M Q2M Q2M de NYZ NYZ NYZ]	FN	FRI
	2120 - 2125z	21 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2019 - 2024z	22 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	2220 - 2225z	22 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1419 - 1424z	24 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2019 - 2024z	24 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2119 - 2124z	24 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2220 - 2225z	26 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1320 - 1325z	27 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1520 - 1525z	27 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	2120 - 2125z	28 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2120 21232	20 341	VVV (AD) Q2M D2 IVI2 (A2) Q5/1 : K (RD) (G1 Hong Kong)	JIL	5711
5230//NRH	1600 - 1601z	07 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1441 - 1442z	08 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1142 - 1227z	18 Jul	(In 4 fig cut nr cipher tfc) (GT Hong Kong)	JPL	WED
		(1142z)	(In tfc - Hand Sent – Tends to run groups together - 1142z)		
			743U5 .4U7N 3D5DA7U5U347T6NAD7U543T6N45 T3N6 5D3N 6T		
			AR 3: AN43 6UT5 6TN3 A7D4 57A4 6TD5 47N3 U3N7 DA6T 457U		
			A4N3 6D3N 6NT5 U34A D5N7 6TDA 43 54 534T 6NDA 7U6A TI		
			DA6N 54U7 T6DA T5U7 436N DA3N 7U5TA 46U 7N3D 6T43 43T5		

BT BT (This is a second station – much louder – Does not seem to be working this station- 1148z)

D56T 7N6U D6UA UT75 A..3 34AN N7AD 6UAD 5T34 6T5D 3N47 DA7N 6TU5 NA4 D3TA 7U45 6N74 N7DA U7T5 ST? 436U 3T54 6N54 6N3T DAU7

 $45\mathrm{TA}$ 6D3N AD.. 6U3.. D7N ...

44TU 3456 MIDNT T36N (1149z) VV BT *T36N* 7UAD 5? VV BT *T36N* 7U

 $VV \; BT \; *T36N* \; 7UAD \; 546N \; U7DA \; T345 \; 6NT7 \; 43U5 \; D.T6 \; 4AU7 \; T3D5 \; DA.U \; 3? \; 5U.4 \; 7T6N \quad AD7U$

543T 6N45 (1150z)

3T 6N V5T3 N65D 3N6. (1152z)

VV B T *T36N* 7UAD 546N U7DA T345 6NT7 43U5 DAT6 4AU7N3D5 DA7U 5U34 7T6N AD7U V?

AD7U

(1154z)

VV BT *T36N* 7UAD 546N U7DA T345 6NT7 43U5 DAT6 4A (1155z)
VV BT *T36N* 7UAD 546N U7DA T445 6NT7 43U5 DAT6 4AU7 N3D5 DA7U 5U (1156z)
VVV BT VV BT *T36N* 7UAD 546N U7DA T345 6NT7 43U5 DAT6 4AU7 N3D5 ? DA7U 5U34
7.6N AD7U 5.? 543T .N45 T3N6 ? D3N6 .7UA4 TA45 6NAD 7N3U 3D74 5D6T 4A7U
AN43 6UT5 6TN3 U7D5 57A. BT D547 N3U3 NGD. 6T45 7U5D TA5T DEUA ..N3 6D3N
NINT 5U34 AD5N 7TST DA43 7U53 4T6N DA,... TDN3 ? 457U DA6N 54U7 T5DA T5U7
436N DA3N 7U5T T46U 7N3D 6T43 4.? 43T5 3.? 34N7 D56T 7N6U D.UA UT75
34AN 6UT5 N7AD 6.AD 5T34 6T5D 3N47 DA7N 6TU5 NA43 D3TA 7.45 6N7.EEEEE (1201z)

AD7N 5T7U D3N6 A.54 IIII (1203z)

4 4 4 4 (VERY SLOW) N7DA U7T5 4VT V36U.. T546 N53D 6N.T NU74 5TA6 D3NA D7U 6U34

345 67DNT AU34 567D N... .345 67DN TA.. 67D NT
VV BT *T36N* 7UAD 546N U7DA T345 6NT7 43U5 DAT. 4AU7 N3D5 DA7U 5U34 7T6N AD7U
543T 6N45 T3N6 5D3N 6TAD 7AA4 TA45 6NAD 7N3U 3D74 5D6T 4A7U AN43 6UT5 DTN.
U7D5 57A. .TD5 47N3 U3N7 DA6T 457U 5DTA 5T6U A.N3 6D3N 6NT5 U34A D5N7 6TD.
437U 534T 6NDA 7U6A TDN. 457U DA6. 54UN T6DA T5U7 .36N DA3N 7U5T A46U 7N3D
NIT.343T634 N7 D5DT 7N6. 6? D6UA UT75 A43D 34.6 .T5N7A. ? N7A. 6UAD5 .W4 6T.D
3N47 DA7T 6TU5 NA43 D.TA 7U45 .N74 N7DA U7T5 .? 436W 3T54 6N54 6N3T DA.7 45..
6D3N AD7U 6U34. D7N 5T7? D3NT AT54 IIIII (1210z) VV BT (1213z)

VV BTT VV BT VV BT *T36N* 7A ??? VV BT *T36N* A (1214z)

T36N 7UAD 546N U7DA T345 6NT7 43U5 DAT6 4AU7 N3D5 DA7U 5U34 7T6N
AD7U 5.3T 6N45 T3N6 5D3N 6TA. 7UA.? 7UA4 TA45 6NAD 7N3U 3.74 5D..
VV BT *T36N* 7UAD 546 NU7D A..456NT7 43U5. DAT6 4AU7 N3D5 DA7U 5U34 7T6N
A.7U EE 43T6 N45T 3N65 D3N 6TAD 7UA4 TA45 6NAD 7.3U 3D74 5D6T 4A7U A.43
6.T5 6TN3 U7D5 57A4 6TD5 .7N3 U3N7 DA6T 457U 5DTA 5T6. A4N3 6D3N .NT5
U34A D5N7 6TDA 437U 53.T 6NDA 7U6A TDN3 457U DADE? DA6N 5EE 4U7 T5DA
T4U7 436N DA3N 7U5T A46. 7N.T ? 7N3D 6T43 43T5 34N7 D56T 7NDU 6? D6UA UT75 A43D UU

(1220z)

 $(1227z) \qquad ... XQ\ DE\ F6.. QSA\ ?\ QSA\ 3\ K\ (This\ seems\ to\ be\ yet\ a\ 3rd\ station-weaker-(1222z) \\ OK\ (1224z)\ (Silent)$

		(1227z)	XQ DE F6QSA? QSA 3 K (This seems to be yet a 3rd station – v	veaker – (1222z)	OK (1224z) (Silent)
(1227z)			(Started at group T36N a total of 8 times!)		
	1740 - 1741z	26 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	THU
	1456 - 1457z	28 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
5230//3642	1647 - 1648z	15 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT South Africa)	JPL	SUN
(5230 only)	1819 - 1819z	15 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	SUN
(5230 only)	2055 - 2056z	15 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	SUN
	1429 - 1430z	16 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	MON
	1558 - 1559z	18 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	WED
$(5230 \ only)$	1952 - 1953z	18 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	WED
	2130 - 2131z	21 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd)(GT Hong Kong)	JPL	SAT
$(5230 \ only)$	1938 - 1939z	23 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1951 - 1952z	28 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
$(5230 \ only)$	1432 - 1433z	29 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
$(5230 \ only)$	1745 - 1746z	29 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
$(5230 \ only)$	1544 - 1545z	30 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1741 - 1742z	30 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
5278// NRH	1451 - 1452z	28 Jul	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
5801//10180					
(5801 only)	1711 - 1712z	10 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5801 only)	1349 - 1350z	19 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1401 - 1402z	19 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1248 - 1249z	20 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
$(10180 \ only)$	1111 - 1112z	21 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5801 only)	1829 - 1830z	21 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
$(10180 \ only)$	1048 - 1049z	22 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1239 - 1240z	22 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
$(10180 \ only)$	0226 - 0227z	23 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
$(10180 \ only)$	1028 - 1030z	23 Jul	(UGT COMM msg sent - mostly U/R) (GT Hong Kong)	JPL	MON
$(10180 \ only)$	1059 - 1101z	23 Jul	(UGT COMM msg sent - mostly U/R) (GT Hong Kong)	JPL	MON
(10180 only)	1057 - 1058z	24 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10180 only)	1229 - 1230z	24 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10180 only)	1006 - 1007z	25 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
$(10180 \ only)$	1214 - 1215z	26 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1335 - 1336z	26 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(10180 only)	0208 - 0209z	27 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	1149 - 1150z	27 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	1443 - 1444z	27 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	1042 - 1043z	28 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10180 only)	1118 - 1119z	28 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1318 - 1319z	28 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
6773//4512	1129 - 1130z	11 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
6773//8040	0944 - 0945z	21 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT

	1109 - 1110z	21 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(6773 only)	1051 - 1052z	22 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2215 - 2216z	22 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2159 - 2200z	26 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(6773 only)	1153 - 1154z	27 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
$(6773 \ only)$	1045 - 1046z	28 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
$(6773 \ only)$	1126 - 1127z	28 Jul	(UGT COMM msg sent - mostly U/R) (GT Hong Kong)	JPL	SAT
(6773 only)	1045 - 1046z	30 Jul	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
6840//10640	0020 - 0025z	08 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	SUN
	1220 - 1225z	10 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	TUE
	1120 - 1125z	11 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	WED
	1120 - 1125z	12 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	THU
	2320 - 2325z	13 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	FRI
	2320 - 2325z	19 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	THU
	2330 - 2342z	19 Jul	6840kHz (In chat) (GT Hong Kong)	JPL	THU
		(2330z)	(Hand sent - very poor copy) 416. HR NR 416 R7 K DR NI DE V.X K K R 416 K K (2331z)	R.16 K R IV2R K	LG
			DE V.A K K 410 K K (25512)		
			R R R QNR QRW 9 ZU9 D K QRW ZRW 9 MDE K R GBG6	R R R I VOR DE VI	E.X
			R NR 416 K R R OSW 0 SCZ K RW SCZ K R R AS R		
			Q.W Z 83CO HK 0 SK ZX K (2336z)	10 70. 3011111 III	
			Q 2 6500 THE 6 SE 21 II (25562)		
		(2337z)	Z 0 VV. K QSA 3 R (2337z) (Silent)		
(6810 ant-1	0220 - 0225z	21 1-1	VVV (v2) O2M DE NVZ (v2) OS & 9 V (D5) (CT Hand Vand)	IDI	CAT
(6840 only)		21 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
(6040 1)	1120 - 1125z	21 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
(6840 only)	0320 - 0325z	22 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	0420 - 0425z	22 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	SUN
	1120 - 1125z	22 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	0219 - 0224z	23 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1020 - 1025z	25 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	0120 - 0125z	26 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	0919 - 0924z	26 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1120 - 1125z	28 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1420 - 1425z	29 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
			rted at1420z but had tx problems which were resolved at 1422z.		
	1020 - 1025z	30 Jul	VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL	MON
7502//0110					
7582//8110	0015 0017	00.1.1	WINDE (2) DE OUED (2) (C. (1) (CELL. W.)	IDI	CLINI
(7582 only)	0015 - 0017z	08 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0536 - 0537z	08 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0240 - 0241z	13 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7582 only)	2342 - 2343z	14 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(8110 only)	1234 - 1243z	20 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(8110 only)	0206 - 0207z	21 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
$(8110 \ only)$	0415 - 0416z	22 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(8110 only)	0032 - 0033z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
$(8110 \ only)$	0925 - 0926z	26 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
$(8110 \ only)$	0007 - 0008z	27 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
$(8110 \ only)$	0204 - 0205z	27 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	0943 - 0944z	30 Jul	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
7602//NDU	1514 1515	11 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	IDI	WED
7602//NRH	1514 - 1515z	11 Jul		JPL	WED
	2128 - 2129z	11 Jul	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
8040//NRH	1111 - 1112z	12 Jul	V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1054 - 1055z	13 Jul	V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
8789//10779	0018 - 0019z	08 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0534 - 0535z	08 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1238 - 1239z	08 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1305 - 1310z	08 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (Silent 1010z - To night freq)	JPL	SUN
(10779 only)	0242 - 0243z	13 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1051 - 1052z	13 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2255 - 2256z	13 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2344 - 2345z	14 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
$(10779 \ only)$	0155 - 0156z	19 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
**	2311 - 2312z	19 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	0208 - 0209z	21 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	0941 - 0942z	21 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	0312 - 0313z	22 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0413 - 0414z	22 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1045 - 1046z	22 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0228 - 0229z	23 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1027 - 1028z	23 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1055 - 1056z	24 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1227 - 1228z	24 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	1002 - 1003z	25 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(/	0029 - 0030z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	0927 - 0928z	26 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	0009 - 0010z	27 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
			(- / (- · / (- · · · ·) (- · · · · · · ·))	· 	

	0206 - 0207z	27 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1040 - 1041z	28 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1115 - 1116z	28 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(8789 only)	0946 - 0947z	30 Jul	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
August 2012			· / · / · / · / · / · / · / · / · / · /	s (Online remotely controlled r	
			<u> </u>	s (omme remoter) commencer	<u> </u>
3297// NRH	1859 - 1900z	11 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
<u>527111 TURIT</u>	1355 - 1356z	17 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1604 - 1605z	19 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
		_			
	1936 - 1937z	19 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1148 - 1149z	20 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1629 - 1630z	23 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd)(GT Hong Kong)	JPL	THU
	1917 - 1918z	23 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd)(GT Hong Kong)	JPL	THU
	1133 - 1134z	25 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1216 - 1217z	25 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1703 - 1704z	25 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2030 - 2031z	25 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1142 - 1143z	26 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1533 - 1534z	26 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1609 - 1610z	_		JPL	SUN
		26 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)		
	1832 - 1833z	26 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1932 - 1933z	26 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1144 - 1145z	27 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1302 - 1303z	27 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1507 - 1508z	27 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2027 - 2028z	28 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1248 - 1249z	29 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
3797//4512	1903 - 1904z	11 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1408 - 1409z	16 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
, ,,	1649 - 1650z	17 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	1608 - 1609z	19 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1938 - 1939z	19 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)		20 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1151 - 1152z	_			
(4512 only)	1603 - 1604z	21 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	1913 - 1914z	21 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
$(4512 \ only)$	1616 - 1617z	22 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1137- 1138z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(3797 only)	1534- 1535z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(3797 only)	1611- 1612z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(3797 only)	1836- 1837z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(3797 only)	1936- 1937z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(3797 only)	1305- 1306z	27 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(3797 only)	1509- 1510z	27 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(3797 only)	2029- 2030z	28 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(3797 only)	1252- 1253z	29 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong) V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(3777 Only)	1232 1233E	2) / 146	V 1121 E (X3) DE DR VO (X2) (Cont d) (G1 Hong Rong)	JIL	WED
4225//5500					
	1519 15102	01 Ang	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	IDI	WED
(5500 only)	1518 - 1519z	01 Aug		JPL	WED
	2009 - 2010z	01 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1852 - 1853z	11 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	1707 - 1708z	13 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1403 - 1404z	16 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
$(4225 \ only)$	1910z	16 Aug	V 7NPE 7NPE 7NPE de QV5B QV5B	FN	THU
	2143 - 2150z	16 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1026 - 1027z	17 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1600 - 1601z	19 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1141 - 1142z	20 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1026 - 1027z	21Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1556 - 1557z	21 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1910 - 1911z	21 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	1612 - 1613z	22 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1045 - 1119z	22 Aug 23 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5500 only)		-		JPL	THU
(5500 only)	1618 - 1619z	23 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1913 - 1914z	23 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL JPL	
(5500 only)	1925 - 2036z	23 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)		THU
(5500 only)	1025 - 1026z	24 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
/5500 · · ·	1040 - 1043z	25 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	1142 - 1143z	25 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	1659 - 1700z	25 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	2026 - 2027z	25 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	2204 - 2205z	25 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4225 only)	1101 - 1102z	26 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4225 only)	1134 - 1135z	26 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4225 only)	1529 - 1530z	26 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4225 only)	1605 - 1606z	26 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1828 - 1829z	26 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1929 - 1930z	26 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1929 - 19302 1138 - 1139z	_		JPL JPL	MON
		27 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)		
	1147 - 1157z	27 Aug	(Msg sent - Probably QV5B) (GT Hong Kong)	JPL	MON

		(1147z)	(In tfc – 1147z - 4225 kHz) NR 013 1945 RMKS 9549 TO 3978 (Silent – switched to //5500kHz) VV VV EE NR 013 1945 RMKS 9549 TO 3978/9543 BT BT UGT COMM 3978/0900/G17/9543 AR AR (1150z) EE NR 0EEEE (The 2 EE before NR are Barred) VV V UGT COMM BT 3978 TO EEEE VV UGT COMM BT 3978 /0900/G17/9543 AR		
		(1152z)	VV UGT COMM BT 3978/0900/G17/9543 AR AR (1152z) (Silent on	• 1	ŕ
	1257 - 1259z 1329 - 1340z	27 Aug 27 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong) (In tfc) V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL JPL	MON MON
		(1329z) (1332z)	(In tfc – 1329z) VV VV UGT COMM BT 3068/2200/G17/9543 AR VV VV UGT COMM BT 3EEEEE VV VV UGT COMM BT 3068/2200/G17/9543 AR VV VV UGT COMM BT 3068/2200/G1G EEE VV VV UGT COMM BT 3068/2200/G17/9543 AR AR AR (1332z)/R	Return to R/S 1333z)	
	1503 - 1504z	27 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1916 - 1917z	27 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(2222 0)	1244 - 1245z	29 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
4590//7607	1526 - 1527z	01 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2011 - 2012z	01 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
.=	1855 - 1856z	11 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1709 - 1710z	13Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1405 - 1406z	16 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	2151 - 2152z	16 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1353 - 1354z	17 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL	FRI
(7607 only)	1647 - 1648z 1602 - 1603z	17 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL	FRI SUN
(7607 only)	1558 - 1559z	19 Aug 21 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL	TUE
	1912 - 1913z	21 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1614 - 1615z	22 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1627 - 1628z	23 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1915 - 1916z	23 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1830z	24 Aug	V WITN WITN WE GNXG GNXG]	FN	FRI
(7607 only)	1109 - 1111z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1701 - 1702z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2028 - 2029z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	2206 - 2207z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1129 - 1130z	26 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1531 - 1532z	26 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1607 - 1608z	26 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1830 - 1831z	26 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1931 - 1932z	26 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1140 - 1141z 1300 - 1301z	27 Aug 27 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong) V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL JPL	MON MON
	1505 - 1506z	27 Aug 27 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1918 - 1919z	27 Aug 27 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2025 - 2026z	28 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1246 - 1247z	29 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
4860// 6840	1520 - 1525z	01 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2020 - 2025z	01 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1920 - 1925z	11 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1719 - 1724z	13 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1420 - 1425z	16 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1620 - 1625z	19 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN TUE
	1620 - 1625z	21 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	
	1920 - 1925z 1620 - 1625z	21 Aug 22 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong) VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL JPL	TUE WED
	1619 - 1624z	_	VVV (x3) Q2M DE NYZ (x2) QSA ? K (x3) (GT Hong Kong) VVV (x3) Q2M DE NYZ (x2) QSA ? K(R5) (GT Hong Kong)	JPL JPL	THU
	1919 - 1924z 1919 - 1924z	23 Aug 23 Aug	VVV (x3) Q2M DE NYZ (x2) QSA? K(R5) (G1 Hong Kong) VVV (x3) Q2M DE NYZ (x2) QSA? K (R5) (GT Hong Kong)	JPL JPL	THU
	1719 - 1724z	25 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2020 - 2025z	25 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2219 - 2224z	25 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1620 - 1625z	26 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1320 - 1324z	27 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1520 - 1525z	27 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1919 - 1924z	27 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
(6840 only)	2020 - 2025z	28 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
5230//NRH	1606 - 1607z	19 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1705 - 1706z	25 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2208 - 2209z	25 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1535 - 1536z	26 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1613 - 1614z	26 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1834 - 1835z	26 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1934 - 1935z	26 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN

5230//3642					
(5230 only)	1857 - 1858z	11 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	1507 - 1508z	27 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Mon) (GT Hong Kong)	JPL	MON
(5230 only)	1925 - 1926z	27 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Mon) (GT Hong Kong)	JPL	MON
5278// NRH	1037 - 1119z	17 Aug	In tfc - 4 fig cut nrs - mostly U/R) DE Q7NW (1107z) (Silent)	JPL	FRI
3276// INKII	1034 - 1035z	21 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1041 - 1042z	21 Aug 23 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL JPL	THU
	1033 - 1034z	24 Aug	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1108 - 1121z	24 Aug 26 Aug	(In tfc) V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1100 11212	201146	(in the) + GIT / Z (int) Z Z Q (Tr) (in Z) (County) (GT Trong Trong)	V1 2	2011
			(1108z) (In tfc -4 fig cut nrs $-1108z$)		
			AR NR 227 CK 301 44 0826 1900 BT (1111z) (Probably repeat of msg)		
			A7D5 6UA5 4ADT (Cont'd)		
		(1121z)	AR (Back to R/S – 1121z)		
<u>5801//10180</u>	1136 - 1137z	25 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1304 - 1305z	27 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1311 - 1315z	27 Aug	(In tfc) V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
		(1311z)	(In tfc) CK 199 19 0827 2 RMKS CQ BT BT 6AND 4NA 4T7U UNT(Cont'd) AR (Retur	rn to R/S
1320z)		(10112)	(11.10) 011 133 13 0027 211 1111115 0 Q 21 21 011 12 1111 1170 0111111	cont a) The (Helli)	
	1250 - 1251z	29 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
6773//8040	1035 - 1036z	17 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
$\frac{677378040}{(6773 \text{ only})}$	1032 - 1033z	21 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(07,2 0111))	1043- 1044z	23 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(8040 only)	1031- 1032z	24 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
, , ,	1048- 1049z	25 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1112- 1119z	25 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1125- 1130z	25 Aug	(Msg sent) V H2FL (x3) DE DRV8 (x2)(Cont'd) (GT Hong Kong)	JPL	SAT
			(In progress - 1125z) 1955/220//20/08 AR (Return to R/S - 1126z)		
	2210- 2211z	25 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1107- 1108z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1127- 1128z	26 Aug	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
6840//10640	1119 - 1124z	17 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
0040//10040	1120 - 1625z	23 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1019 - 1024z	24 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	0320 - 0325z	25 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1119 - 1124z	25 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1219 - 1224z	25 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1121 - 1126z	26 Aug	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
7500//0110	0220 0221	17. 4	MENDE (A) DE ONED (A) (C. 41) (CEU M. M.	IDI	EDI
7582//8110 (7582 only)	0230 - 0231z	17 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(8110 only)	2352 - 2353z 0302 - 0303z	19 Aug 25 Aug	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong) V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL JPL	SUN SAT
(0110 omy)	0302 0303E	23 / 146	V / IVI E (X3) DE Q V3D (X2) (Colle d) (G1 Hong Kong)	31 L	5711
7602//NRH	1651 - 1652z	17 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
8789//10779	1029 - 1030z	17 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
0.07/110/17	1125 - 1126z	17 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10779 Only)	2354 - 2355z	19 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
, , , , , , , , , , , , , , , , , , , ,	1143 - 1144z	20 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1028 - 1029z	21 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 0nly)	0256 - 0257z	23 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1027 - 1028z	24 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10779 0nly)	0206 - 0207z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 0nly)	0304 - 0305z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10770 0 1)	1044 - 1045z	25 Aug	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 Only)	2319 - 2320z	29 Aug	V WITN (x3) DE GNXG (x2) (Cont'd)	JPL	WED
			Note: This was a surprise being able to hear GNXG direct in Canada!		
10180//NRH	1032 - 1033z	17 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1127 - 1128z	17 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1145 - 1146z	20 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1030 - 1031z	21 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1126 - 1127z	23 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1046 - 1047z	25 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1105 - 1106z	26 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1132 - 1133z	26 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1142 - 1143z	27 Aug	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON

 $\underline{\textbf{M94}}$ CW, MCW, partner station to V24 Virtually unheard in Europe so we rely on our Americas monitors No Reports

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

First log of July heard on Thu 05 with a repeat of the 50 group message first sent on Thu 28 June. BR & GD listened carefully to a broken msg due to intermittent audio from the online receiver, and by analysing recording made came up with the full transcript.

10375 1500 - 1519z 05 Jul Msg So Dien:72 (Via GlobalTuners Johannesburg)

This message gives a new insight into the station, with changes to the headers. Previously messages were headed SDxx & SNxx for the msg number and group count respectively. With this message the headers have been sent in full giving **So Dien:** & **So Nhom:** .

Google translation (which is the best we can do at the moment), gives us the following;

So Dien: Performers This is the msg number that increases by one with every new msg.

So Nhom: Comparison Group. This is the Group Count - The actual number of grps in the msg.

If anyone with Vietnamese language skills is able to give us a better translation of these titles, then please let us know.

10375 1500 - 1519z 08 Jul - 12 Jul Msg So Dien:72 reported on 9, 10 July. All other days NRH. BR/GD/JPL

This msg didn't last long however, being sent only three times, for on Fri 13 Jul a new 85 grp msg appeared. This time the headers had returned to the previously used abbreviations. Usually there is a longer pause after every five grps, this was present but noticeably missing between grps65 - 66.

10375 1500 - 1528z 13 Jul Msg SD73 SN85 New Msg Copied via GlobalTuners Hong Kong BR FRI 1500 - 1548z 16 Jul Msg SD73 SN85* Copied via GlobalTuners Johannesburg BR MON

Msg is usually sent three times with a 1min pause between sendings. Today the msg was sent six times, in sets of two. The msg was sent twice with no pause between, followed by a 1min pause. This sequence was repeated again twice.

*Given the Monday timing is exactly the same as Wednesday's transmission I believe it is more likely that this was also an SD74 / SD73 transmission - BR

10375 1500 - 15**48**z 18 Jul Msg SD74 SN65 / SD73 SN85 New Msg via GlobalTuners Hong Kong BR/JPL WED

New msg SD74, 65 grps followed immediately by SD73, 85 grps. This sequence was repeated twice more with a 1min pause between each of the sendings.

10375 1500 - 1548z 19 Jul Msg SD74 SN65 / SD73 SN85 Copied via GlobalTuners Johannesburg BR THU

On 20 July the SD73 msg was dropped with only SD74 being sent.

10375 20 - 31Jul Msg SD74 SN65 reported on 20,23 July. BR 1500 - 1522z All other days NRH 1458 - 1521z Msg SD74 SN65 reported on 16 Aug. BR/GD THU 16 Aug Msg SD75 SN80 10375 1500 - 1525z 23 Aug New Msg Copied via GlobalTuners Hong Kong BR THU 1458 - 1525z 24 - 29 Aug Msg SD75 SN80 reported on 24,25, 28, 29 Aug. All other days NRH BR

Due to the poor reception of this signal in both the UK and Canada, GlobalTuners receivers in Hong Kong, Johannesburg & Sydney were used frequently to confirm the msg detail.

SO DIEN: 72KKK SO DIEN: 72KKK SO DIEN: 72 KKK DK: HT HT HT

SO NHOM: 50 SO NHOM: 50 SO NHOM: 50

30583 15899 28504 11668 77425 32367 24453 85914 89556 94799

46299 40212 36007 13956 55002 24759 05685 55745 63480 59114 50457 55012 39400 97369 97048 51032 87644 58194 73239 29626 84594 90681 22269 59396 14768 67840 62671 56873 66279 41289

50920 56461 92061 50769 90957 56618 62072 87254 62884 35405

 SD 73KKK SD 73KKK SD 73KKK HT HT HT SN85 SN85 SN85

AAAAAAAAAAAAAAAAAAAAAAAA

30217 60317 95691 91971 16183 49417 07530 60286 32201 31103 71659 27466 96659 23299 89226 37959 03195 04948 25978 06684

3/939 03193 03194 2397/8 00084 49472 76698 44620 01504 74402 70612 27965 10030 66784 82105 97774 41724 12627 86969 20922 88503 76402 62332 32329 49231 38463 85573 24779 01645 68577

38463 85573 24779 01645 68577 21771 95859 58804 57402 42279 58420 83311 13331 69314 00674 37958 64573 67038 60948 59725 79638 16770 46308 59143 46668

72022 06985 65965 77471 19453 46842 63364 29910 18482 42521 64190 77812 79672 37058 94356

Courtesy BR

SD 74KKK SD 74KKK SD 74KKK HT HT HT

BR/GD

THU

SN65 SN65 SN65

AAAAAAAAAAAAAAAAAA

03644 83008 93162 79448 22017 36494 26794 92897 81736 62739

36494 26794 92897 81736 62739 36843 89493 59435 50070 54424 98427 89527 08800 38215 03488

73749 95384 87681 40804 26758 98289 41341 52239 54871 28189 32610 05778 64050 92756 02426

32610 05778 64050 92756 02426 52304 98903 24296 82789 93175 81905 21398 26924 77819 28712

06164 82417 07359 61332 74041 95701 46073 25332 39814 42537 57596 08415 17495 17102 00558 61288 20560 14876 78679 47382

KKKKKKKKKKKKKKK

Courtesy BR

SK01 (Data Mode generic classification, Cuban TX's) See Control List & comments in Issue 49 which still apply, also piece after logs describing the new SK01 transmission format

RDFT system (Redundant Digital File Transfer)

July	2012:

5898 0500z 20 Jul Clear End 0547z Ggs 6768 1601z 19 Jul QRM4 End ?1651z? Ggs 8009 2300z 09 Jul Series of data bursts that started about 15 secs. after end of msg followed by one long data burst Ggs 9063 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 9124 0600z 15 Jul Good reception. End 0631z. Noise at 0601z. First data burst at 0605z. one every 5 mins. total of 6 Ggs 11433 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 080dz 04 Aug End ukn Ggs 9063 0900z 07 Aug End ukn Ggs 9063 0900z 08 Aug End ukn Ggs 9064 0900z 08 Aug Data bursts every 5 minutes Ggs 9240 1000z 29 Aug Data unknown type QSA5 What was						
6768 1601z 19 Jul QRM4 End ?1651z? Ggs 8009 2300z 09 Jul Series of data bursts that started about 15 secs. after end of msg followed by one long data burst Ggs 9063 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 9124 0600z 15 Jul Good reception. End 0631z. Noise at 0601z. First data burst at 0605z. one every 5 mins. total of 6 Ggs 11433 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 1000z 07 Aug 0800z 11 Aug End ukn Ggs 9063 0900z 07 Aug 0800z 07 Aug	5880	0802z	17 Jul	QRN5 End uk	Ggs	TUE
8009 2300z 09 Jul Series of data bursts that started about 15 secs. after end of msg followed by one long data burst Ggs 9063 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 9124 0600z 15 Jul Good reception. End 0631z. Noise at 0601z. First data burst at 0605z. one every 5 mins. total of 6 Ggs 11433 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 5898 075 cz 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 1000z 04 Aug 1000z 07 Aug 07 Aug 080z 11 Aug End ukn Ggs 9063 0900z 07930z 08 Aug 07	5898	0500z	20 Jul	Clear End 0547z	Ggs	FRI
9063 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs 9124 0600z 15 Jul Good reception. End 0631z. Noise at 0601z. First data burst at 0605z. one every 5 mins. total of 6 Ggs 11433 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs August 2012: 5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 1000z 07 Aug 07 Aug 070 Au	6768	1601z	19 Jul	QRM4 End ?1651z?	Ggs	THU
9124 0600z 15 Jul Good reception. End 0631z. Noise at 0601z. First data burst at 0605z. one every 5 mins. total of 6 Ggs 11433 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs August 2012: 5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 04 Aug End ukn Ggs 9063 0900z 07 Aug End ukn Ggs 9063 0900z 08 Aug Ggs 0930z 27 Aug Data bursts every 5 minutes Ggs 9240 1000z 29 Aug Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes. HT	8009	2300z	09 Jul	Series of data bursts that started about 15 secs. after end of msg followed by one long data burst	Ggs	MON
11433 0615z 18 Jul QRN5/QRM4 (Caught in progress) End ukn Ggs August 2012: 5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 1000z 07 Aug 07 Aug 08 Aug 0900z 11 Aug End ukn Ggs Ggs Ggs Ggs 9063 0900z 0930z 27 Aug Data bursts every 5 minutes Ggs 9240 1000z 29 Aug Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes. HT	9063	0615z	18 Jul	QRN5/QRM4 (Caught in progress) End ukn	Ggs	WED
August 2012: 5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 1000z 07 Aug 0800z 11 Aug End ukn Ggs Ggs Ggs 9063 0900z 0930z 27 Aug Data bursts every 5 minutes Ggs 9240 1000z 29 Aug Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes. HT	9124	0600z	15 Jul	Good reception. End 0631z. Noise at 0601z. First data burst at 0605z. one every 5 mins. total of 6	Ggs	SUN
5898 0756z 28 Aug SK01 - brief transmission DanAR 5930 0930z 16 Aug End ukn Ggs 8186 0804z 04 Aug 1000z 07 Aug 0800z 11 Aug End ukn Ggs Gg	11433	0615z	18 Jul	QRN5/QRM4 (Caught in progress) End ukn	Ggs	WED
5930 0930z 16 Aug End ukn Ggs 8186 0804z 1000z 07 Aug 0800z 11 Aug End ukn Ggs Ggs Ggs Ggs 9063 0900z 0930z 27 Aug Data bursts every 5 minutes Ggs Ggs 9240 1000z 29 Aug Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes. HT	August	<u> 2012:</u>				
8186 0804z 04 Aug 1000z 07 Aug 0800z 11 Aug End ukn Ggs 0800z 11 Aug Ggs 0800z 11 Aug Ggs 0800z 11 Aug Ggs 0800z 127 Aug Data bursts every 5 minutes Ggs 0930z 27 Aug Data bursts every 5 minutes HT	5898	0756z	28 Aug	SK01 - brief transmission	DanAR	TUE
1000z 07 Aug Ggs 0800z 11 Aug 9063 0900z 08 Aug Ggs 0930z 27 Aug Data bursts every 5 minutes Ggs 09240 1000z 29 Aug Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes. HT	5930	0930z	16 Aug	End ukn	Ggs	THU
0930z 27 Aug Data bursts every 5 minutes 9240 1000z 29 Aug Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes. HT	8186	1000z	07 Aug	End ukn	Ggs	SAT TUE SAT
	9063		U	Data bursts every 5 minutes	Ggs	WED
11435 0600z 27 Aug Ggs	9240	1000z	29 Aug I	Data unknown type QSA5 What was supposed to be V02a at 1000z is now a data burst every few minutes.	HT	WED
	11435	0600z	27 Aug		Ggs	MON

New SK01 Transmission Format!

On Sunday June 24th at 1000z on 9112kHz a new transmission format was seen in what is normally an M8a slot. The standard format transmissions repeat the same message at 5 minute intervals.

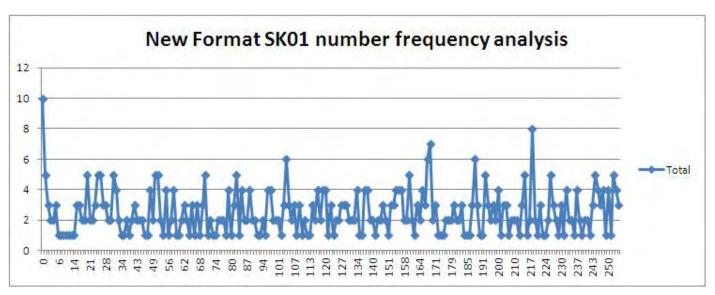
The new TX format consisted of 3 sets of lead in tones (30 seconds followed by a data transmission with no file extension followed immediately by a 10 second lead in tone and another data transmission then another 10 second lead in tone followed by a 3rd data transmission (each data burst was 18 seconds in length). The cycle immediately began repeating with another 3 sets of lead in tones.

The signal was fairly weak but one of the three transmitted messages was identified as 10243321 a 552 byte file with no file extension. The numbers when converted from Hex give the values of 0 to 255.

Frequency analysis of the numbers showed that all were present between 1 and 8 times although 0 appeared 10 times and all of 6 to 14 appeared once only which looks odd in the frequency analysis graph hopefully included.

The sequence of numbers shows some pattern at the start with eight of the 10 zeros appearing in the first 20 of the total 552 characters!

See below.



This transmission format was seen again on July 12th at 1600z on 6768kHz unfortunately with no decode. On this day the transmission continued looping for a full 15 minutes before stopping.

Much different to the full hour or half hour transmissions normally seen.

 $80\ 81\ 1138\ 0137\ 0\ 0109\ 012\ 0\ 119\ 2\ 0\ 0\ 5\ 10\ 027\ 230\ 149\ 101\ 235\ 22\ 124\ 169\ 225\ 227\ 165\ 104$ 16 109 102 238 189 17 155 212 27 87 241 34 195 250 248 176 255 227 23 194 119 28 188 169 118 126 220 21 78 23 121 98 $243\ 68\ 113\ 195\ 63\ 244\ 131\ 126\ 47\ 187\ 79\ 179\ 209\ 231\ 200\ 218\ 169\ 69\ 85\ 117\ 235\ 171\ 24\ 200\ 105\ 64\ 184\ 215\ 202\ 117\ 168\ 197$ 75 189 192 20 42 131 210 116 74 48 251 21 169 24 107 50 58 65 144 17 130 175 146 19 133 27 250 31 79 20 105 200 165 192 239 246 53 38 26 147 210 160 57 187 115 204 116 9 90 101 76 165 170 157 230 70 178 120 85 119 29 159 82 16 $188\ 26\ 156\ 178\ 80\ 88\ 5\ 197\ 1\ 4\ 247\ 232\ 91\ 226\ 104\ 82\ 87\ 238\ 166\ 255\ 153\ 38\ 83\ 108\ 236\ 54\ 53\ 58\ 247\ 123\ 226\ 104$ $33\ 89\ 106\ 65\ 133\ 193\ 100\ 117\ 50\ 41\ 155\ 86\ 160\ 168\ 99\ 234\ 100\ 50\ 254\ 44\ 30\ 67\ 232\ 70\ 2\ 227\ 160\ 219\ 42\ 244\ 115\ 97$ $215\ 213\ 156\ 20\ 120\ 31\ 224\ 50\ 85\ 174\ 163\ 192\ 17\ 97\ 31\ 253\ 39\ 188\ 137\ 165\ 188\ 24\ 128\ 139\ 240\ 46\ 168\ 11\ 228\ 202\ 218\ 79$ 180 32 148 221 43 75 182 138 55 69 243 128 109 26 3 200 99 163 219 98 221 148 228 169 130 250 28 212 60 14 86 148 136 193 28 94 201 157 49 20 248 181 98 49 55 162 164 70 221 244 193 157 216 242 93 88 247 55 192 147 179 168 140 1 117 69 66 215 138 67 187 214 52 169 254 157 32 214 26 79 237 32 171 208 111 18 20 41 18 255 155 120 97 32 134 159 24 26 160 61 120 215 48 104 62 103 134 154 166 89 45 24 61 171 218 48 122 58 254 140 151 183 103 234 177 177 85 129 $182\ 52\ 229\ 241\ 72\ 106\ 119\ 88\ 70\ 232\ 218\ 240\ 57\ 58\ 183\ 226\ 56\ 253\ 237\ 22\ 107\ 129\ 138\ 183\ 82\ 214\ 137\ 127\ 77\ 112\ 185\ 188$ $44\ 163\ 50\ 55\ 127\ 190\ 134\ 244\ 90\ 149\ 246\ 209\ 81\ 180\ 94\ 156\ 181\ 62\ 248\ 59\ 189\ 225\ 248\ 103\ 217\ 31\ 215\ 139\ 194\ 135\ 127\ 62$ $82\ 115\ 204\ 160\ 218\ 249\ 52\ \ 1\ \ 72\ 168\ 154\ 164\ \ 65\ 128\ \ 71\ 129\ 105\ 244\ \ 0\ 134\ \ 3\ \ 98\ 161\ \ 8\ \ 30\ \ 45\ \ 36\ 246\ \ 73\ 218\ 222\ 180$ 76 23 97 16 243 232 169 155 67 111 246 82 153 6 88 170 31 33 237 202 254 250 192 154 104 52 191 168 158 43 0 5 $104\ 253\ 42\ 122\ 124\ 217\ 230\ 188\ 52\ 253\ 166\ 226\ 146\ 122\ 137\ 110\ 63\ 156\ 186\ 218\ 153\ \ 4\ 195\ 237\ 107\ \ 29\ 158\ 226\ \ 81\ \ 96\ \ 77\ \ 48$ 253 204 218 118 2 70 161 119

On to the logs. May/June

```
SK01 8180kHz 0800z 1/5 sent 84254711.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 1/5 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 8/5 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 9/5 sent 45920229.txt 230 bytes at 5 minute intervals
SK01 5930kHz 0930z 8/5 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 12/5 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 15/5 sent 54551228.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 15/5 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1658z 15/5 sent 18737188.txt 1024 bytes at 5 minute intervals. First and only decode on this frequency since 23/2 due to poor modulation
SK01 5800kHz 0700z 16/5 sent 82538258.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1658z 16/5 sent 18737188.txt 1024 bytes at 5 minute intervals.
SK01 8180kHz 0600z 17/5 sent 11222144.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 17/5 sent 11222144.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 17/5 sent 18737188.txt 1024 bytes at 5 minute intervals.
SK01 12120kHz 0530z 18/5 sent 54551228.txt 1024 bytes at 5 minute intervals.
SK01 5930kHz 0900z 19/5 sent 86166653.txt 1024 bytes at 5 minute intervals. Note full hour on this frequency instead of expected 0930 onward
SK01 9063kHz 0600z 20/5 sent 11222144.txt 1024 bytes at 5 minute intervals until 0630
SK01 8180kHz 0800z 22/5 sent 12577888.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 23/5 sent 62323873.txt 1024 bytes at 5 minute intervals
SK01 9063kHz 0600z 23/5 sent 26721844.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 23/5 sent 18737188.txt 1024 bytes at 5 minute intervals.
SK01 9124kHz 0600z 24/5 sent 11222144.txt 1024 bytes at 5 minute intervals until 0630z
SK01 6768kHz 1600z 24/5 sent 18737188.txt 1024 bytes at 5 minute intervals
SK01 8186kHz 0800z 26/5 sent 26721844.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 26/5 sent 62323873.txt 1024 bytes at 5 minute intervals.
SK01 11435kHz 0600z 28/5 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 8186kHz 0600z 28/5 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 30/5 sent 82538258.txt 1024 bytes at 5 minute intervals
SK01 9124kHz 0600z 31/5 sent 11874857.txt 1024 bytes at 5 minute intervals until 0630z
SK01 8180kHz 0800z 31/5 sent 12577888.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 31/5 sent 18737188.txt 1024 bytes at 5 minute intervals
SK01 8186kHz 0800z 2/6 sent 86166653.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 2/6 sent 38367263.txt 1024 bytes at 5 minute intervals.
SK01 9063kHz 0600z 3/6 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 4/6 sent 18737188.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 5/6 sent 54551228.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 5/6 sent 38367263.txt 1024 bytes at 5 minute intervals then 54551228.txt at 0956
SK01 6768kHz 1600z 5/6 sent 18737188.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 6/6 sent 78515726.txt 1024 bytes at 5 minute intervals
SK01 9063kHz 0600z 10/6 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 11/6 sent 78515726.txt 1024 bytes at 5 minute intervals
SK01 13380kHz 0530z 12/6 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 12/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 12/6 sent 61535647.txt 1024 bytes at 5 minute intervals.
SK01 5800kHz 0700z 13/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 8186kHz 0600z 13/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 14/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 14/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 16/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 19/6 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 19/6 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0500z 20/6 sent 82682225.txt 1024 bytes at 5 minute intervals until 0530
SK01 5800kHz 0700z 20/6 sent 78515726.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 20/6 sent 18737188.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 21/6 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 21/6 sent 18737188.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 23/6 sent 61535647.txt 1024 bytes at 5 minute intervals
```

SK01 9112kHz 1030z 24/6 sent 10243321 552 bytes See notes on new format SK01.

July/August

```
SK01 5930kHz 0930z 3/7 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 11435kHz 0625z 4/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 5/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 5/7 sent 74227815.txt 1024 bytes at 5 minute intervals.
SK01 8186kHz 0800z 7/7 sent 86166653.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 7/7 sent 61535647.txt 1024 bytes at 5 minute intervals.
SK01 9063kHz 0630z 8/7 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 10/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 9063kHz 0630z 12/7 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 12/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 6768kHz 1600z 12/7 sent New format 3 X Lead ins followed by 3 messages repeated continuously for 15 minutes. No Decode.
SK01 8186kHz 0800z 14/7 sent 86166653.txt 1024 bytes at 5 minute intervals
SK01 9063kHz 0630z 15/7 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 8180kHz 0800z 17/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 8186kHz 1000z 17/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 12120kHz 0500z 18/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 18/7 sent 78515726.txt 1024 bytes at 5 minute intervals
SK01 9063kHz 0630z 19/7 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5898kHz 0500z 20/7 sent 78515726.txt 1024 bytes at 5 minute intervals
SK01 9063kHz 0630z 22/7 sent 11874857.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 24/7 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 1/8 sent 78515726.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 4/8 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 11/8 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 14/8 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 15/8 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 16/8 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 23/8 sent 82682225.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 25/8 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5930kHz 0930z 28/8 sent 61535647.txt 1024 bytes at 5 minute intervals
SK01 5800kHz 0700z 29/8 sent 78515726.txt 1024 bytes at 5 minute intervals
```

A lot of the transmissions have been characterized by poor modulation especiallly it seem the 1600z TX on 6768kHz. The carrier is up most weekdays but the transmission is often barely audible. In the July/August timeframe only 6 different text file names were seen as follows. All being 1024 byte files.

11874857.txt

61535647.txt

74227815.txt

78515726.txt

82682225.txt

86166653.txt

Thanks MaleAnon

Contributors

AB, BR, DanAR, DLBB, DoK, FN, GD, GE, Gert, Ggs, Hans, HFD, HT, JeanmoE2Kde, JPL, kd4kym, Male Anon, PLdn, RNGB, TillmanE2Kde. Thank you all for your logs.

VOICE STATIONS

E06 [1A]

PoSW's logs and analysis:

First + Third Thursdays in the Month 2030 UTC Schedule:-

5-July-12:- 5,948 kHz, severe interference from an S9+ broadcast station on 5,950. E06 unreadable.

2-Aug-12:- $5,948\,kHz$, the broadcaster a much weaker signal than on the last occasion, E06 good signal, call "724", DK/GC "716 716 15 15"

16-Aug-12:- 5,948 kHz, E06 unreadable due to French language broadcaster on 5,950 which was S9+ - and then some!

Friday Following the First + Third Thursdays in the Month 2130 UTC Schedule:-

6-July-12:- 5,731 kHz, calling "315", DK/GC "521 521 15 15". Came complete with the rasping noise on the speech noted from time to time in the past on these evening E06 schedules.

20-July-12:- 5,731 kHz, S9 carrier but no voice heard. Was still up at 2148 UTC.

3-Aug-12:- 5,731 kHz, no problems this evening, call "315", DK/GC "540 540 15 15". S9 signal with good audio.

17-Aug-12:- 5,731 kHz, started approx. 50 seconds before the half hour, "315" and "540 540 15 15" as on the 3rd. Strong signal with no distortion but there was a low-pitched audio tone of perhaps a couple of hundred Hz, thought it might be a heterodyne from a carrier close to 5,731 but when E06 went QRT there was no sign of one so presumably the tone was on the E06 transmission.

Second Wednesday in the Month 1920 + 2020 UTC Schedule:-

11-July-12:- 1920 UTC, 5,769 kHz, "154 154 154 00000". Carrier was up on 5,769 half an hour earlier at 1850z. 2020 UTC, 4,783 kHz, second sending. Same pair of frequencies as in June.

8-Aug-12:- 1920 UTC, actually started about 20 seconds early, 5,769 kHz, "154 154 00000". S9 signal. After the four minute sending had finished carrier stayed on and E06 OM heard calling "1-2-3-4-5-7-8-9" - no "6" or "0" several times before going off.

2020 UTC, 4,783 kHz, second sending, also started early, was in progress when tuned in 25 seconds before 2020z. No change of frequencies in August.

Sunday Following the Second Wednesday in the Month 1120 + 1220 UTC Schedule:-

15-July-12:- 1120 UTC, although started the best part of a minute early. 8,025 kHz, "154 154 00000", very weak signal but surprisingly clear copy with the receiver in USB mode and the carrier tuned for zero beat. Carrier was noted on 8,025 just before 1100z, same frequency as in June. 1220 UTC, 7,482 kHz, second sending, also very weak. Couldn't find this one in June but no doubt was on the same frequency.

<u>First + Third Thursdays in the Month 0500 + 0600 UTC Schedule:</u> 5-July-12:- 0500 UTC, 14,580 kHz, call "679", DK/GC "528 528 104 104", close to a strong "XJT".

0600 UTC, 16,090 kHz, second sending, good signal peaking over S9.

6-July-12, Friday:- 0500 UTC, 14,580 kHz first sending of "next day repeat" complete with "XJT".

0600 UTC, 16,090 kHz, second sending, much weaker than yesterday, S5 to S6.

19-July-12:- 0500 UTC, 14,580 kHz, "679" and "528 528 104 104", weak signal with "XJT".

0600 UTC, 16,090 kHz, second sending, weak signal.

20-July-12, Friday:- 0500 UTC, 14,580 kHz, next day repeat, very weak signal and "XJT".

However, was much stronger when checked again at 0515z. Ended 0522z with, "528 528 104 104 00000".

0600 UTC, 16,090 kHz, second sending, very weak, didn't have time to hang around to see if it improved!

2-Aug-12:- 0500 UTC, 13,930 kHz, calling "210", DK/GC "975 975 104 104". S8 signal on a clear frequency

0600 UTC, 15,890 kHz, second sending, also a strong signal on a clear frequency.

3-Aug-12, Friday:- 0500 UTC, 13,930 kHz, next day repeat, first sending, weaker than yesterday, S5.

0600 UTC, 15,890 kHz, second sending, and in contrast with earlier this was stronger than yesterday peaking over S9 although with QSB.

16-Aug-12:- 0510 UTC, 13,930 kHz, missed the 0500z start, transmission in progress, ended just before 0525z with, "975 975 104 104 00000".

Strength S7 to S8.

0600 UTC, 15,890 kHz, second sending.

17-Aug-12, Friday:- 0500 UTC, 13,930 kHz, next day repeat, much weaker than yesterday, only just detectable.

0600 UTC, 15,890 kHz, also much weaker than yesterday.

From RNGB:

E06	log:	
Tuly	/ 4 110	met

July/Aug	ust			
Sunday	15/07	11:20	8025	'154' 00000
Sunday	15/07	12:20	7482	'154' 00000
Thurs	19/07	05:00	14580	'679' 528 104 94994 75783 52762 21035 95430
Thurs	19/07	20:30	5948	'724' 926 15 1953?
Thurs	02/08	05:00	13930	'210' 975 104 41611 50002 13244 90351 7787732541
Thurs	02/08	06:00	15890	'210' 975 104 41611 50002 13244 90351 7787732541
Thurs	02/08	20:30	5948	'724' 716 15 64930 16374 98201 36472 7394937284
Friday	03/08	21:30	5731	'315' 540 15 42516 78016 48291 93027 9302628493
Thurs	16/08	05:00	13930	'210' 975 104 41611 50002 13244 90351 7787732541
Friday	17/08	21:30	5731	'315' 540 15 42516 78016 48291 93027 9302628493

Onto others' logs:

July:

5731kHz2036z	06/07[Test Count] 2037z Fair QRN3 QSB3		Spectre	FRI
2130z	06/07[315 521 15 91284 10362 521 15 00000(s)]	(7m06s)	PLdn, Spectre	FRI

E06 5731kHz 2129z 06/07 Transcript: 315 521 15 91284 63920 35278 54910 53728 49210 34256 73829 18302 17382 26382 19372 37481 35283 10362 521 15 00000 Courtesy Spectre

AUTOINTERCEPT THU 5948kHz2030z 05/07 BCQRM5, odd characters audible PI.dn

THU

FRI

Spectre

FR

14580kHz 0500z 05/07[679 508 104 Difficult To Copy] Weak QRN4 QSB4

06/07[679 528 104 94994 ... 73964 528 104 00000] Strong signal, strong noise 0500z

> 679 528 104 94994 78783 52762 21035 95430 38322 60741 04865 71674 91966 $\begin{array}{c} 26151\ 93125\ 95492\ 05971\ 82352\ 63139\ 81126\ 64599\ 90980\ 99622\\ 09846\ 37655\ 93307\ 45237\ 51476\ 31861\ 85917\ 72726\ 93837\ 81800 \end{array}$ 94140 45827 16029 60089 41676 61127 66496 11476 39838 88077 31829 40555 44884 49332 07209 07786 56826 08611 04461 13487 58203 58261 58645 74522 16215 23723 19105 23340 96690 27073 35946 84064 63291 76837 77842 05326 60421 76259 42147 54522 03259 67218 43209 03182 23353 51974 89862 58139 43232 59933 88002 18193 78444 51624 29209 60939 90480 77062 51333 89470 39019 30704 81993 93624 06916 70160 00931 05472 96388 90879 82134 53727 19836 73964 00000

August:

5731kHz2130z 2130z	03/08[315 540 15 42516 28493 540 15 00000(s)] 2137z Strong 17/08[315 540 15 42516 78016 28493] 2136z Strong	(6m57s)	PLdn Hans	FRI FRI
5948kHz1944z 2029z	02/08[1 2 3 4 5 6 7 8 9 (R)] 1945z Strong 02/08[724 716 15 64930 37284 716 15 00000(s)] Strong, started 67s early		PLdn PLdn	THU THU
15890kHz0600z 0600z 0600z	02/08Weak, odd characters, '10' 03/08[210 975 104 41611] QSB to nil in places, ran in excess of 20m. 16/08[210] Faded into background, Very weak		PLdn PLdn PLdn	THU FRI THU

E07 [1B]

PoSW's logs and analysis:

Continues to use the same frequencies as in the same month in previous years, so no problem to find!

Sunday + Wednesday Schedule, 1700 UTC Start:-

1-July-12, Sunday:- 1700 UTC, 13,468 kHz, "441 441 441 000", S9 signal with good audio.

1720 UTC, 11,454 kHz, second sending, weaker signal than first sending with a strong "XJT" on a close frequency.

8-July-12, Sunday:- 1700 UTC, 13,468 kHz, "441 441 441 000".

1720 UTC, 11,454 kHz, second sending, the "XJT" is on the HF side and can be suppressed by using the receiver in LSB mode since E07 uses oldschool amplitude modulation with a carrier and two side-bands!

11-July-12, Wednesday:- 1720 UTC, 11,454 kHz, "441 441 441 000" with "XJT" for company.

22-July-12, Sunday:- 1700 UTC, 13,468 kHz, "441 441 441 000", strong carrier but audio low.

1720 UTC, 11,454 kHz, second sending, low audio.

29-July-12, Sunday:- 1700 UTC, 13,468 kHz "441 441 441 000" - not much trade for agent 441 in July, then! S9+ with good audio.

1720 UTC, 11,454 kHz, second sending, strong signal over-riding that pesky "XJT"!

1-Aug-12, Wednesday:- 1700 UTC, 13,388 kHz, change of frequencies for August, "305 305 305 000". Strong signal with, by Jove, excellent audio!

1720 UTC, 12,088 kHz, second sending, over-riding broadcast stations inside 25 metre band.

12-Aug-12, Sunday:- 1700 UTC, 13,388 kHz, "305 305 305 000", S9 with good audio.

1720 UTC, 12,088 kHz, second sending, flattening all opposition.

Monday + Wednesday Schedule, 1900 UTC Start:-

2-July-12, Monday:- 1904 UTC, 14,812 kHz, "full message" transmission in progress, missed the start. S9+ with good audio.

1920 UTC, 13,412 kHz, "845 845 845 1", DK/GC "538 142" x 2. Strong "XJT" on the same frequency - not slightly off to one side so using receiver in USB or LSB mode to make use of Mr Murata's filter made no improvement.

1940 UTC, 11,512 kHz, third sending, S9 but with deep QSB.

11-July-12, Wednesday:- 1900 UTC, 14,812 kHz, "845 845 845 000", S9+ with good audio.

23-July-12, Monday:- 1900 UTC, 14,812 kHz, "845 845 845 1", DK/GC "841 131" x 2. Strong signal with reasonable audio.

1920 UTC, 13,412 kHz, second sending, flattened by "XJT", best of luck with that, agent 845!.

1940 UTC, 11,512 kHz, third sending, S9+ with good audio, best sending of the three.

1-Aug-12, Wednesday:- 1900 UTC, 14,378 kHz, "349 349 349 000", with a strong "XJT" close by - seems to come free with at least one out of three E07s!

1920 UTC, 13,458 kHz, second sending, good signal, reasonable audio.

6-Aug-12, Monday:- 1900 UTC, 14,378 kHz, "349 349 349 000", with "XJT".

Thursday Schedule, 2010 UTC Start:5-July-12:- 2010 UTC, 11,539 kHz, "553 553 553 1", low audio and broadcast station interference making for difficult copy for DK/GC and 5Fs.

2030 UTC, 10,547 kHz, second sending, DK/GC "931 52" x 2. S9+ carrier, seemed to have a rapid flutter as though from some kind of low frequency instability in the transmitter.

2050 UTC, 9,388 kHz, third sending, audio low but readable.

12-July-12:- 2010 UTC, 11,539 kHz, "553" and "931 52", as last time. Reception best with receiver in LSB mode to remove broadcaster on HF side. 2030 UTC, 10,547 kHz and 2050 UTC, 9,388 kHz, repeats.

19-July-12:- 2010 UTC, 11,539 kHz, "553 553 553 000"

2-Aug-12:- 2010 UTC, 10,753 kHz, "716 716 716 000", strong signal with good audio.

2030 UTC, 9,147 kHz, second sending, good signal.

9-Aug-12:- 2010 UTC, 10,753 kHz, "716 716 716 1", DK/GC "425 43" x 2. S9+ with good audio.

2033 UTC, 9,147 kHz, second sending in progress, missed the start. S9 with QSB.

2050 UTC, 7,637 kHz, third sending, S9+.

16-Aug-12:- 2010 UTC, 10,753 kHz, "716 716 716 1", DK/GC "425 43" x 2, same as last week.

2030 UTC, 9,147 kHz, second sending, vanished with carrier for about one second during the call-up routine, came back, went off again just as the 5Fs started. Carrier returned, short

burst of tone, call-up started again after 2033 UTC, DK/GC again 2034 and 25s UTC and into 5Fs without further incident.

2050 UTC, 7,637 kHz, third sending, S9 with good audio.

Wednesday E07a SSB Schedule, 2000 UTC Start:-4-July-12:- 2000 UTC, 8,173 kHz, "147 147 147 000", S9+ SSB signal.

2020 UTC, 7,473 kHz, second sending, strong signal, heterodyne from BC station on 7,475.

11-July-12:- 2020 UTC, 7,473 kHz, missed first sending, "147 147 147 1 30704", DK/GC "538 77" x 2, strong signal with usual broadcaster on HF side.

2040 UTC, 5,773 kHz, third sending, strong signal.

25-July-12:- 2000 UTC, 8,173 kHz, "147 147 147 000", S9+.

1-Aug-12:- 2000 UTC, 8,173 kHz, "147 147 147 000", S9+ as usual.

15-Aug-12:- 2000 UTC, 8,173 kHz, "147 147 147 000", S9+.

2020 UTC, 7,473 kHz, second sending, very strong signal over-riding broadcast opposition.

RNGB's logs:

E07 log:					
July/Aug	ust				
Sunday	08/07	17:00	13468	'441' 000	
Wedn	11/07	19:00	14812	'845' 000	
Thursd	12/07	20:10	11539	'553' 1 931 52 14828 00063 84629 35272	
Wedn	18/07	19:00	14812	'845' 000	
Wedn	25/07	19:00	14812	'845' 1 841 131 06728 65141 87627 67545	
Wedn	01/08	19:20	13458	'349' 000	
Monday	06/08	19:00	14378	'349' 000	
Thurs	09/08	20:30	9147	'716' 1 425 43 00758 62950 24763 6718161350	
Wedn	15/08	19:00	14378	'349' 1 411 54 83724 88725 62158 35088	
Wedn	15/08	19:20	13458	'349' 1 411 54 83724 88725 62158 35088	
Thurs	16/08	20:10	10753	'716' 1 425 43 00758 62950 24763 6718161350	
Sunday	19/08	17:40	10504	'305' 1 192 124 15140 93344 29185 96541	
Wedn	22/08	17:00	13388	'305' 1 192 124 15140 93344	
Wedn	22/08	19:20	13458	'349' 000	
Wedn	22/08	20:00	8173	'147' 000	
Thurs	23/08	20:10	10753	'716' 000	

Onto others' logs:

11512kHz1930z

1940z 1940z

July:

				
9388kHz2040z	05/07[553 1 931 52 14828 000000 000]2057 S2 fading		M8, FR	THU
10126kHz1740z	$18/07[441\ 1\ 341\ 55\ 14428\\ 51014\ 000\ 000]\ Strong\ signal,\ strong\ noise,\ fading$		FR	WED
10547kHz2030z	05/07[553 1 931 52 14828 000000 000]2037 S4 fading		M8, FR	THU
	553 1 931 52 14828 00063 84629 35272 01327 29682 67799 35991 53928 91075 66007 12183 85540 72554 *9294 *2443 69415 59675 04048 74030 29090 *8210 44185 88772 32200 **424 57396 50745 90090 *1879 62267 13304 35269 18*45 42951 99729 5*40* 55*94 *4914 *8400 64801 594** 384*0 98417 *0144 63569 996*7 712** 80799 5757* 59*** 79895 000 000			
2030z	26/07 QRM5		PLdn	THU
11454kHz1720z 1720z 1720z 1720z 1720z	01/07[441 000]Strong 04/07[441 441 441 000] 1722z Fair QRN3 QSB3 11/07[441 441 441 000] 1722z Weak QRN4 QSB4 18/07[441 1 341 55 14428 51014 000 000] Barely audible		FR Spectre Spectre FR	SUN WED WED WED
1720z	25/07[441 000] Fair	(2m13s)	PLdn,M8	WED

Spectre, PLdn

(16m45s) PLdn

(15m45s) PLdn, HJH

MON

WED

MON

02/07[845 1 538 142 82936 ... 16102 000 000] 1957z Fair QRN3 QSB4

23/07[845 1 841 131 06728 ... 91795 000 000]Strong carrier, fair audio

04/07[845 1 538 142 82936 ... 16102 000 000] Strong

11512kHz 1940z	25/07[845 1 841	131 06728	91795 000 0001	Very strong
11J1ZK11Z 174UZ	23/0/1043 1 041	131 00/20	71/75 000 000	very sublig

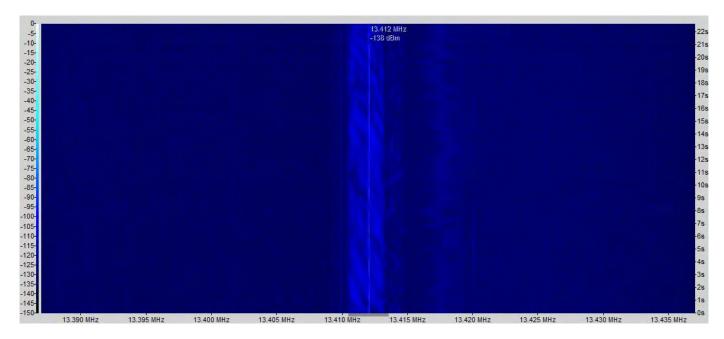
(15m45s) PLdn,M8

WED

845 1 841 131
06728 65141 87627 67545 98801 10143 66376 28375 89489 94991
25320 91999 86853 51216 12025 38002 40541 42012 75438 95586
54479 53549 61979 52732 40799 08362 75189 46978 32919 42050
14052 63930 06934 17136 24017 67333 02014 11660 22729 83796
77716 13414 18305 39446 87738 53457 36877 50327 69697 37100
07466 09413 74164 05407 38169 85479 58459 05947 24774 38237
09931 98554 26717 00857 80172 31613 51674 73901 99659 02421
34211 03465 97098 89574 33753 91443 47716 23226 20851 83793
34799 85995 95987 30393 18358 52509 66076 92506 54318 81539
54435 56166 58484 26962 83636 77713 80450 95966 18452 55890
84730 76344 29859 84656 87969 94928 05544 32348 89903 65274
66432 28039 12202 76948 49473 23686 42080 55423 57213 20429
57831 71188 16499 17733 36330 84908 02703 61300 00338 68922
91795 000 000

Courtesy FR

11539kHz2010z 2010z	05/07[-] Bleeding from Voice of Korea (11535kHz) too strong to make anything out 26/07[553 000] Weak	(2m13s)	FR, HJH PLdn	THU THU
12141kHz1720z	08/07[414 000] Veryweak		PLdn	SUN
13412kHz1920z	02/07[845 1 538 142 82936 16102 000 000] 1937z Fair STANAGQRM3 QSB3		Spectre, PLdn	MON
1920z	04/07[845 1 538 142 82936 16102 000 000] XJTQRM4/5	(16m45s)	PLdn	WED
1920z	11/07[845 845 845 000] 1922z Fair QRN3 QSB3 Spectre WED			
1920z	23/07 XJTQRM5		PLdn, HJH	MON
1920z	25/07 NRH		PLdn	WED
1920z	30/07 XJTQRM5, with carrier, see below		PLdn	MON



13412kHz 1920z 30/07 XJTQRM5, with carrier

13468kHz1700z	01/07[441 000] Weak, QRM3	(2m13s)	PLdn	SUN
1700z	04/07[441 441 441 000] 1702z Fair QRN3 QSB3		Spectre	WED
1700z	08/07[414 000] Very weak		PLdn	SUN
1700z	11/07[441 000] Weak		Spectre,PLdn	WED
1700z	18/07[441 1 341 55 14428 51014 000 000] Strong signal, moderate noise	(8m03s)	FR, PLdn	WED
	441 1 341 55 14428 45017 05355 79111 95581 44221 23422 50085 66025 48300 85699 17740 94025 15368 09202 97485 82645 60861 81757 37829 15489 32948 67387 48806 85274 45289 18978 32804 65851 20835 34121 67467 15766 09430 58045 13620 17034 36931 10503 06615 81850 34732 63287 17767 35355 51890 42934 76446 96142 16243 95690 87056 02024 64690 51014 000 000			
1700z	22/07[441 000] 1702z Weak	(2m13s)	PLdn	SUN
1700z	25/07[441 000] Strong	(2m13s)	PLdn,M8	WED

SUN

WED

Hans

PLdn

(2m14s)

E07 14812/13412/11512kHz 02/07 Transcript:

845 I 538 I 42
82936 60983 32221 11949 71537 05463 50799 50701 07777 73233
57795 01310 67688 78121 94157 22626 22078 24598 88878 12750
47358 42197 29745 62762 27460 43547 42120 17796 70830 91460
31317 83062 08263 53791 33942 92325 08837 94973 98384 92742
59070 26340 03814 22635 43287 22087 53745 52112 34805 27198
99284 91167 04427 31248 49988 26434 90531 03854 18334 14486
26434 90531 03854 18334 14486 67119 30237 34392 16844 55170
71754 08673 95324 72870 96764 53027 86496 04102 34003 86351
36381 40895 16402 33940 83692 90489 57972 69486 84616 53000
94363 22865 64645 84013 46435 70109 43531 81289 83793 83279
16300 74165 04258 25585 80879 25386 28822 02843 41151 02820
72309 86584 50641 18323 23942 36435 33037 81392 31955 38435
39340 99177 07910 20090 00348 99963 57475 63702 83274 65115
73708 65044 48279 91246 80060 99382 15368 70451 86170 61574
61206 85688 94476 93440 61510 42334 16102

Spectre notes that the group count was supposed to be 142, but there are 157 five fig groups in the message.

1900z 1900z 1900z 1900z 1900z	04/07[845 1 538 142 82936 16102 000 000] Strong 11/07[845 845 845 000] 1902z Fair QRN3 QSB3 18/07[845 000] Strong signal, moderate noise 23/07[845 1 841 131 06728 91795 000 000] Strong, QRM2 QSB2 25/07[845 1 841 131 06728 91795 000 000] Fair	(15m45s)	Spectre FR, DanAr, PLdn	WED WED MON WED
August:				
9147kHz2030z	09/08[716 1 425 43 00758000 000]2038z S9		M8	THU
10505kHz1740z	08/08[305 1 404 45 74585 77553 000 000] Strong NEW FREQ [was 10118kH	Iz] (7m06s)	M8,PLdn	WED
	305 1 404 45 74985 67387 04333 27590 43024 79932 87441 40270 25102 97601 18085 55378 05910 27275 90098 03333 00465 68216 62015 36144 76489 52856 80038 43824 40650 93508 96101 50745 59372 60552 93310 18764 84964 69735 05223 70157 16529 50914 02879 62563 22356 20161 83406 38987 77553 000 000 Courtesy M8			
1740z 1740z	19/08[305 1 192 124 15140 94640 000 000] Fair 22/08[3051 192 124 15140 93344 39185 96541] 1755z Strong QRN3 QSB3	(14m46s)	PLdn, FR, MP MP	SUN WED
10753kHz2010z	09/08 [716 1 425 43 00758 61350 000 000]2017 S9+10		M8	THU
	716 1 425 43 00758 62950 24763 67181 45148 47061 33034 65797 18438 51343 87055 60580 25036 50412 81147 86320 11422 28601 12666 63862 98565 62613 62213 82489 68679 95339 98764 40530 49519 00747 50483 87156 13892 74647 52003 71507 97023 49810 95986 79181 87402 61350 000 000 Courtesy M8			
10958kHz1940z 1940z	13/08[349 1 411 54 83724 99937 000 000] Fair, Break in transmission at call-up 15/08[349 1 411 54 83724 99937 000 000] Strong, buzz on carrier. Faulty Tx?	(8m00s) (8m00s)	PLdn, M8 PLdn, FR	MON MON
	349 1 411 54 83724 88725 62158 35088 67193 29337 83846 21295 83628 87728 43602 58391 29089 17162 7998682989 83288 80955 73101 38976 32870 18075 48783 33379 5846533918 73724 00059 68371 14552 66046 97170 16546 66455 8369642350 07077 61876 41178 29831 55365 59554 65903 62197 7023059927 06876 85163 26346 84974 07545 01148 51624 99937 000 000 Courtesy FR			
12088kHz1720z 1720z 1720z 1720z 1720z 1720z	01/08[305 000] Strong 05/08[305 1 404 45 74585 77553 000 000] Fair, QRM3 08/08[305 1 404 45 74585 77553 000 000] Strong 12/08[305 000] Weak 15/08[305 000] Strong, QRM2 19/08[305 1 192 124 15140 94640 000 000] Fair 305 192 124 15140 93344 09185 96541 31130 44051 92227 66081 61837 12743 05491 78790 08567 55664 19456 43390 74361 56480 61401 89891 61229 04532 64496 52545 36809 00571 75822 6***1 01017 45770 28429 82699 22618 39844 30686 12567 21808 79471 89895 48340 89676 89979 97515 12507 31705 27439 84138 91065 31668 65106 03017 86189 20304 72512 65971 *1709 00875 95334 *7780 86093 02997 78659 26272 9403* 79946 61186 59104 *8770 36901 48673 *1952 21562 10475 56691 68945 49530 83831 55227 86519 18231 01040 62969 81165 6*484 97387 403** 77085 54890 50513 29769 98440 06385 76699 73995 18677 09528 19000 89767 77414 66657 45451 31879 30659 6*008 798** *6818 80458 5486* ***** *49** 788*3 87446 *8087 64257 03825 95063 80931 13350 *543* 58138 10311 43220 58694 94640 000 000 Courtesy FR	(2m13s) (7m06s) (7m06s) (2m13s) (2m13s)	PLdn PLdn M8,PLdn PLdn PLdn, FR FR, MP	WED SUN WED SUN WED SUN

26/08[305 000] 1722z Strong

29/08[305 000] Very strong

1720z

1720z

13388kHz1700z 1700z 1700z 1700z 1700z 1700z 1700z 1700z 1700z	01/08[305 000] Fair 05/08[305 1 404 45 74585 77553 000 000] Strong 08/08[305 1 404 45 74585 77553 000 000] Strong 12/08[305 000] Weak 15/08[305 000] Strong 19/08[305 1 192 124 15140 94640 000 000] Fair 26/08[305 000] 1702z Strong 29/08[305 000] Weak, noisy, PULSEQRM3		(2m13s) (7m06s) (7m06s) (2m13s) (2m13s) (14m46s) (2m14s)	PLdn PLdn, DLBB M8,PLdn PLdn PLdn, FR PLdn, FR, MP Hans PLdn	WED SUN WED SUN WED SUN SUN WED
13458kHz1920z 1920z 1920z 1920z 1920z 1920z 1920z 1920z	01/08[349 000] Good 1923z QRM3 QSB3 06/08[349 000] Good 1923z QRM2 QSB3 08/08[349 000] 1902z Strong, XJTQRM2 13/08[349 1 411 54 83724 99937 000 000] Very strong 15/08[349 1 411 54 83724 99937 000 000] Weak, XJTQRM3/4 20/08[349 000] Fair 27/08[349 000] Fair 29/08[349 000] Strong		(2m13s) (8m00s) (8m00s) (2m13s) (2m13s) (2m13s)	MP MP, HJH PLdn PLdn, M8 PLdn, FR M8, PLdn PLdn PLdn	WED MON WED MON MON MON MON WED
14378kHz1900z 1900z 1900z 1900z 1900z 1900z 1900z <u>E07a</u> July:	01/08[349 000] Strong, QRM 08/08[349 000] 1902z Strong, XJTQRM2 13/08[349 1 411 54 83724 99937 000 000] Weak, XJTQRM3/4 15/08[349 1 411 54 83724 99937 000 000] Strong 20/08[349 000] Weak, XJTQRM3 27/08[349 000] XJTQRM5 29/08[349 000] Strong, XJTQRM2		(2m13s) (8m00s) (8m00s) (2m13s) (2m13s)	FR PLdn PLdn, M8 PLdn, FR M8, PLdn PLdn PLdn	WED WED MON MON MON MON WED
5773kHz2040z 2040z	11/07[147 1 30704 53877 12210 17664 000 000] Very strong 18/07[147 1 68986 423 46 44743 05563 000 000] Strong signal, moderate noise	[previously	20/06]	Spectre,PLdn FR, PLdn, Spectre	WED WED
7437kHz0430z 0430z 0430z 0430z	05/07[411 411 411 000] 0432z Fair QRN3 QSB2 12/07[411 1 30704 538 77, repeat from 21/06] Strong signal, moderate noise, fading 19/07[411 1 68986 4263 46 44743 05563 000 000] Very strong 26/07[411 000] Very strong		(6m23s) (2m13s)	Spectre FR, PLdn, Spectre Spectre, PLdn PLdn	THU THU THU THU
7473kHz2020z 2020z 2020z 2020z 2020z	04/07[147 000] Very strong 11/07[147 1 30704 53877 12210 17664 000 000] Very strong, BCQRM2 18/07[147 1 68986 423 46 44743 05563 000 000] Strong signal, pause during 22nd gro 25/07[147 000] Very strong	[<i>previousl</i> y oup (5909		Spectre, PLdn Spectre, PLdn FR, PLdn, Spectre PLdn	WED WED WED
8137kHz0450z 0450z 0450z 0450z	05/07[411 411 411 000] 0452z Fair QRN3 QSB2 12/07[411 1 30704 538 77 12210 17664 000 000] 0458z Fair QRN3 QSB2 19/07[411 1 68986 4263 46 44743 05563 000 000] Very strong 26/07[411 000] Very strong		(6m23s) (2m13s)	Spectre Spectre Spectre,PLdn PLdn	THU THU THU THU
8173kHz2000z 2000z	04/07[147 000] Very strong, XJTQRM2 11/07[147 1 30704 53877 12210 17664 000 000] Very strong	[previously	(2m13s) (20/06]	Spectre, GD PLdn, Spectre	WED WED
	E07a 8173/7473/5773kHz 11/07 2000/2020/2040z Transcript: 147 1 30704 538 77 12210 81091 59779 07174 42412 60082 46623 30222 45906 04138 75869 17605 11041 52019 89082 92905 34810 63544 65837 04682 96652 78311 81891 08498 21528 08360 52539 54420 21303 43559 90592 50572 80471 74685 87241 08467 39159 29334 70327 24315 93592 35295 68516 46874 09665 36697 27653 54199 02077 50010 98241 64691 58628 93607 87556 83438 72126 53340 91579 74757 74757 71328 07992 52499 59871 39442 63329 90974 57428 94169 63774 43956 61291 81089 93475 91788 32068 17664 000 000 Courtesy Spectre				
2000z	18/07[147 1 68986 4263 46 44743 05563 000 000] Very strong 147 1 68986 423 46 44743 66059 30530 51812 58621 86826 87954 92946 27406 51164 95705 27856 73407 20846 63862 17905 11989 67292 09677 44909 47789 59092 05578 46178 30990 32348 94491 24004 17198 07620 62829 02616 94697 02308 29480 86013 64561 28039 62155 78028 13053 51429 62871 34643 13160 05563 000 000		(6m23s)	PLdn, Spectre	WED
2000z	25/07[147 000] Very strong, XJTQRM2		(2m13s)	PLdn,M8	WED
9137kHz0510z	12/07[411 1 30704 538 77 12210 17664 000 000] Strong, QRM2 AUTOINTERCEPT		(8m45s)	PLdn	THU
	E07a 7437/8137/9137kHz 12/07 0430/0450/0510z Transcript: 411 1 30704 538 77 12210 81091 59779 07174 42412 60082 46623 30222 45906 04138 75869 17605 11041 52019 89082 92905 34810 63544 65837 04682 96652 78311 81891 08498 21528 08360 52539 54420 21303 43559 90592 50572 80471 74685 87241 08467 39139 29334 70327 24315 93592 35295 68516 46874 09665 36697 27653 54199 02077 50010 98241 64691 58628 93607 87556 83438 72126 53340 91579 74757 74757 71328 07992 52499 59871 39442 63329 90974 57428 94169 63774 43956 61291 81089 93475 91788 32068 17664 000 000 Courtesy Spectre				
0510z	19/07[411 1 68986 4263 46 44743 05563 000 000] Very strong		(6m23s)	PLdn	THU

12173kHz0800z 0800z 0800z	14/07[198 1 31916 918 48 21458 18594 21/07[198 000] Weak 28/07[198 000] Very strong	.25431]	(2m13s) (2m13s)	RNGB PLdn GD,PLdn	SAT SAT SAT
13973kHz0820z 0820z 0820z	14/07[198 1 31916 918 48 21458 18594 21/07[198 000] Strong 28/07[198 000] Very strong	.25431]	(2m13s) (2m13s)	RNGB PLdn PLdn	SAT SAT SAT
14873kHz0840z	14/07[198 1 31916 918 48 21458 18594	.25431]		RNGB	SAT
August:					
7437kHz0430z 0430z 0430z 0430z 0430z	02/08[411 000] Very strong 09/08[411 000] Very strong 16/08[411 000] Very strong 23/08[411 000] Very strong 30/08[411 000] Very strong		(2m13s) (2m13s) (2m13s) (2m13s) (2m13s)	PLdn PLdn PLdn PLdn PLdn	THU THU THU THU THU
7473kHz2020z 2020z 2020z 2020z 2020z 2020z	01/08[147 000] Very strong 08/08[147 000] Very strong 15/08[147 000] Strong, BCQRM2 22/08[147 000] Strong 29/08[147 000] Strong, BCQRM2		(2m13s) (2m13s) (2m13s) (2m13s) (2m13s)	PLdn PLdn PLdn PLdn PLdn	WED WED WED WED WED
8137kHz0450z 0450z 0450z 0450z 0450z 0450z	02/08[411 000] Very strong 09/08[411 000] Very strong 16/08[411 000] Very strong, ttyQRM2 23/08[411 000] Very strong 30/08[411 000] Very strong, TTYQRM2		(2m13s) (2m13s) (2m13s) (2m13s) (2m13s)	PLdn PLdn PLdn PLdn PLdn	THU THU THU THU THU
8173kHz2000z 2000z 2000z 2000z 2000z 2000z	01/08[147 000] Very strong 08/08[147 000] Strong, XJTQRM2 15/08[147 000] Strong 22/08[147 000] Strong 29/08[147 000] Very strong		(2m13s) (2m13s) (2m13s) (2m13s) (2m13s)	PLdn, FR PLdn PLdn, FR PLdn PLdn	WED WED WED WED WED
12177kHz0800z 0800z 0800z	04/08[148 000]Weak 18/08[148 000]Weak 25/08[148 000]Very strong		(2m13s) (2m13s) (2m13s)	PLdn, GD PLdn, GD PLdn	SAT SAT SAT
13477kHz0820z 0820z 0820z 0820z 0820z	04/08[148 000] Fair 04/08[148 000] Fair 18/08[148 000] Fair 25/08[148 000] Strong, QRM2	(Using May freqs 12177/13477/14877)	(2m13s) (2m13s) (2m13s)	PLdn PLdn PLdn PLdn	SAT SAT SAT SAT
16138kHz0745z	28/08 in prog, ending 000 000			MP	TUE

***85 33199 89584 59912 33743 62294 57571 71751 61061 25120 94354 13304 28637 03907 07531 20838 41352 48348 14201 75374 54398 10445 42546 11124 93563 63929 16481 73521 86194 35976 78205 33739 75785 80347 67483 64585 55995 55984 23742 87235 98424 28817 38854 25708 05354 97154 92162 18796 55716 08304 94384 10333 78898 32429 49073 05352 000 000 Courtesy MP

PoSW's logs and analysis of Saturday transmission:

Saturday E07a SSB Schedule, 0800 UTC Start:-

28-July-12:- 0800 UTC, 12,173 kHz, "198 198 198 000", strong SSB signal.

0820 UTC, 13,973 kHz, second sending, weaker, S5 to S6. Unaware of this schedule until seeing it in the E2K Newsletter, managed to forget to search for it until today.

4-Aug-12:- 0800 UTC, 12,177 kHz, "148 148 148 000". Change of frequency for August then, so this schedule does not use two blocks of frequencies, one for spring and summer and one for autumn and winter as the Wednesday E07a does.
0820 UTC, 13,477 kHz, second sending.

11-Aug-12:- 0800 UTC, 12,177 kHz and 0820 UTC, 13,477 kHz:- "148 148 148 000".

18-Aug-12:- 0800 UTC, 12,177 kHz and 0820 UTC, 13,477 kHz, still "no message".

25-Aug-12:- 0800 UTC, 12,177 kHz and 0820 UTC, 13,477 kHz, "148 148 148 000", both transmissions S9 to S9+, strongest signals so far from this 9 o'clock Saturday schedule.

E11[III]

July/August 4909KHz 0900z	23/08 [248/00] 0903z Scarcely Perceptible	Marco	THU
6280kHz 0820z	02/07 [438/00] 0823z Very Weak QRN3 QSB3	Spectre	MON
0820z	05/07 [438/00] Out 0823z Very weak	Malc	THU
0820z	12/07 [438/00] 0823z Fair QRN2 QSB2	Spectre	THU
0820z	16/07 [438/00]	RNGB	MON
0820z	30/07 [438/00]	RNGB	MON
0820z	09/08 [438/00] Out 0823z S1	Malc	THU
0820z	20/08 [438/00] Out 0823z S1	Malc	MON
0820z	27/08 [438/00] Fair	RNGB	MON

8088kHz				
8088KHZ	1720-	26/07 [416/00]	DNCD	THE
		26/07 [416/00]	RNGB	THU
	1730z	02/08 [416/00] Good	RNGB	THU
	1730z	23/08 [416/00] Good	RNGB	THU
9150kHz	2000z	13/07 [576/00] Good	RNGB	FRI
) I S O KI I Z	2000z	03/08 [576/00] Strong	RNGB	FRI
	2000z	10/08 [576/00]	IanW	FRI
9610kHz	1045z	10/07 [469/00] 1048z Weak QRN3 QSB4	Spectre	TUE
	1045z	17/07 [469/00] 1048z Fair QRN4 QSB3	Spectre	TUE
	1045z	24/07 [469/00] Out 1048z S5	Malc	TUE
	1045z	· ·		
		01/08 [469/00] Strong signal, moderate noise	Fox	WED
	1045z	08/08 [469/00] Out 1048z S1	Malc	WED
10800kHz	z 0450z	16/07 [416/00] 0453z Weak QRN4 QSB3	Spectre	MON
	0450z	27/08 [416/00] 0453z Fair	Hans	MON
12924kHz	09202	02/07 [649/00] Out 0833z S1	Mala Spaatra	MON
129248112		. ,	Malc, Spectre	
	0830z	12/07 [649/00] 0833z Very Weak QRN3 QSB3	Spectre	THU
	0830z	23/07 [649/00] Out 0833z S5	Malc	MON
	0830z	30/07 [649/00]	RNGB	MON
	0830z	13/08 [649/00] Out 0833z S3	Malc	MON
	0830z	20/08 [649/00] Out 0833z S2	Malc	MON
	0830z		RNGB	THU
		23/08 [649/00]		
	0830z	27/08 [649/00] Good	RNGB	MON
13424kHz	z 0645z	05/07 [517/00] 0648z Fair QRN3 QSB3	Spectre	THU
	0645z	12/07 [517/00] 0648z Fair ORN3 OSB3	Spectre	THU
	0645z	24/07 [517/00]	RNGB	TUE
	0645z	26/07 [517/00]	RNGB	THU
	0645z	02/08 [517/00] Good	RNGB	THU
	0645z	07/08 [517/00] Good	RNGB	TUE
	0645z	16/08 [517/00]	RNGB	THU
13427kHz	00007	02/07 [534/00] Out 0903z S2	Malc, Spectre	MON
1342/КП2				
	0900z	04/07 [534/00] 0903z QRM2 MP	Marco	WED
	0900z	11/07 [534/00]	RNGB	WED
	0900z	16/07 [534/00] 0903z Weak QRN4 QSB3	Spectre	MON
	0900z	23/07 [534/00] Out 0902z S6	Malc	MON
	0900z	30/07 [534/00]	RNGB	MON
	0900z		RNGB	WED
		01/08 [534/00]		
	0900z	06/08 [534/00]	RNGB	MON
	0900z	08/08 [534/00] Out 0903z S5	Malc	WED
	0900z	15/08 [534/00] Weak	RNGB	WED
14753kHz	07107	03/07 [633/00] 0713z Weak QRN4 QSB3	Spectre	TUE
14/33K112				
	0710z	17/07 [633/00] Fair	RNGB	TUE
	0710z	20/07 [633/00 Out 0713z S5	Malc	FRI
	0710z	24/07 [633/00]	RNGB	TUE
	0710z	31/07 [633/00]	RNGB	TUE
	0710z	03/08 [633/00] Weak	RNGB	FRI
	0710z	and the form of the first of th		FRI
	UTTUL	17/08 [633/00]	RNGR	
		17/08 [633/00]	RNGB	1 101
15/22111	0745			
15632kHz		10/07 [335/00] Weak	RNGB	TUE
15632kHz	0745z	10/07 [335/00] Weak 12/07 [335/00] Weak	RNGB RNGB	TUE THU
15632kHz		10/07 [335/00] Weak	RNGB	TUE
15632kHz	0745z	10/07 [335/00] Weak 12/07 [335/00] Weak	RNGB RNGB	TUE THU
15632kHz	0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00]	RNGB RNGB RNGB RNGB	TUE THU THU THU
15632kHz	0745z 0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak	RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU
15632kHz	0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00]	RNGB RNGB RNGB RNGB	TUE THU THU THU
	0745z 0745z 0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak	RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU TUE
15632kHz 16125kHz	0745z 0745z 0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00]	RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU
	0745z 0745z 0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak	RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU TUE
	0745z 0745z 0745z 0745z 0745z 0745z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00]	RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU TUE
16125kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9	RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU TUE TUE
	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00]	RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU TUE TUE TUE
16125kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] Weak 10/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED
16125kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00]	RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU THU TUE TUE TUE
16125kHz 16335kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] Weak 10/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED
16125kHz 16335kHz E11a	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] Weak 10/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED
16125kHz 16335kHz E11a	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] Weak 10/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED
16125kHz 16335kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] Weak 10/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED
16125kHz 16335kHz E11a July/Aug	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc	TUE THU THU THU TUE TUE TUE TUE TUE THU WED SUN
16125kHz 16335kHz E11a	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE TUE THU WED SUN
16125kHz 16335kHz E11a July/Aug	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc	TUE THU THU THU TUE TUE TUE TUE TUE THU WED SUN
16125kHz 16335kHz E11a July/Aug	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE TUE THU WED SUN
16125kHz 16335kHz E11a July/Aug 6280kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z 0820z 0820z 0820z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE TUE THU WED SUN
16125kHz 16335kHz E11a July/Aug	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z 0820z 0820z 0820z 1730z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong	RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU
16125kHz 16335kHz E11a July/Aug 6280kHz	0745z 0745z 0745z 0745z 0745z 0745z 2 1045z 1045z 2 1155z 1155z 1540z 0820z 0820z 0820z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE TUE THU WED SUN
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z 0820z 0820z 1730z 1730z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] 08/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU
16125kHz 16335kHz E11a July/Aug 6280kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z 0820z 0820z 1730z 1730z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong	RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z 0820z 0820z 1730z 1730z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] 08/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z 0820z 0820z 1730z 1730z 2000z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] Weak 16/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] 08/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz 9150kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1155z 1155z 1540z 0820z 0820z 0820z 1730z 1730z 2000z	10/07 [335/00] Weak 12/07 [335/00] Weak 12/07 [335/00] Weak 16/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good 17/08 [579/36 17880 25338 18975 03287 5962175343] Good 13/07 [953/20 02207 32557 31259 54373 3605088500] Weak	RNGB RNGB RNGB RNGB RNGB RNGB RNGB Malc RNGB Malc Marco	TUE THU THU THU TUE TUE TUE TUE THU WED SUN MON THU THU THU
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz 9150kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1045z 1155z 1155z 1155z 1540z 0820z 0820z 1730z 1730z 2000z 21710z 1710z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good 17/08 [579/36 17880 25338 18975 03287 5962175343] Good 13/07 [953/20 02207 32557 31259 54373 3605088500] Weak 20/07 [957/21 64557 31645 59852 32106 3488978162] Fair	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU THU THU THU THU THU THU THU
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz 9150kHz	0745z 0745z 0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1045z 1155z 1155z 1156z 1157z 1157z 1157z 1150z 11730z 1730z 2000z 1710z 1710z 1710z	10/07 [335/00] Weak 12/07 [335/00] Weak 12/07 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] 08/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good 17/08 [579/36 17880 25338 18975 03287 5962175343] Good 13/07 [953/20 02207 32557 31259 54373 3605088500] Weak 20/07 [957/21 64557 31645 59852 32106 3488978162] Fair 27/07 [957/20 86646 27994 08436 91025 1940345912] Weak	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU THU THU THU THU THU THU THU THU
16125kHz 16335kHz E11a July/Aug 6280kHz 8088kHz 9150kHz	0745z 0745z 0745z 0745z 0745z 0745z 1045z 1045z 1045z 1155z 1155z 1155z 1540z 0820z 0820z 1730z 1730z 2000z 21710z 1710z	10/07 [335/00] Weak 12/07 [335/00] Weak 02/08 [335/00] Weak 16/08 [335/00] 23/08 [335/00] Weak 28/08 [335/00] Weak 10/07 [576/00] 24/07 [576/00] 24/07 [576/00] Out 1048z S9 02/08 [718/00] Out 1158z S5 19/08 [228/00] 1544z fair QRM2 23/07 [436/32 "ATTENTION" 29007 7580643842] Out 0829z S2 16/08 [432/36 29542 47135 68828 71690 24415] Weak 05/07 [411/36 76628 06074 81364 85389 8089194299] Strong 16/08 [415/34 29124 25572 94819 40901 4135483512] Good 17/08 [579/36 17880 25338 18975 03287 5962175343] Good 13/07 [953/20 02207 32557 31259 54373 3605088500] Weak 20/07 [957/21 64557 31645 59852 32106 3488978162] Fair	RNGB RNGB RNGB RNGB RNGB RNGB RNGB RNGB	TUE THU THU THU TUE TUE TUE THU WED SUN MON THU THU THU THU THU THU THU THU

10487kHz 17	,	RNGB	MON
17	oz 17/08 [957/21 61101 43786 00631 19495 1589821440] Good	RNGB	FRI
17	oz 23/08 [953/23 44034 34429 75976 64634 9550468926] Good	RNGB	FRI
17	oz 27/08 [953/21 88983 43564 79601 12159 5593530762] Good, Out 1717z	RNGB	MON
12924kHz 083	oz 16/07 [644/28 89015 88480 67766 73734 6179483450] Weak	RNGB	MON
083	·	RNGB	MON
08:	,	Malc	THU
00.	07/06 [040/30 ATTENTION 75401 13724 0437703374] Out 00372 33	waic	1110
13424kHz 064	(z 17/07 [512/25 00020 06294 25400 92272 26794 09960] Enir	DNCD Speatre	TUE
	,	RNGB, Spectre	
054	·	RNGB	WED
064	5z 23/08 [519/32 78157 78453 16422 51999 7347650676] Fair	RNGB	THU
13427kHz 090	,	Malc, RNGB	MON
090	2z 18/07 [537/30 16782 etc] repeat of Monday. Weak	RNGB	WED
090	oz 20/08 [533/32 "ATTENTION" 09207 99062 2332005891] Out 0909z S2	Malc	MON
090	oz 22/08 [533/32 09207 99062 23320 59613 7098505891] Fair	RNGB	WED
	,		
14518kHz 18	28/08 [987/10 06386 16146 95832 94286 9325285983] Strong, Out 1815z	RNGB	TUE
14753kHz 07	0z 10/07 [630/30 10538 68657 02262 35726 1421160640] Weak	RNGB	TUE
07	·	RNGB	FRI
	, , ,		
07	07/08 [635/34 64335 14994 76608 06694 1984967086] Weak	RNGB	TUE
15600111 05	0.1/07/2007/27 01/10/ 0.1/00 10/10 01/10 01/27	DNGD	mr III
15632kHz 074		RNGB	TUE
074		RNGB	TUE
074	5z 09/08 [333/30 "ATTENTION" 23393 97530 3838371409] Out 0754z S3	Malc	THU
16335kHz 11:	5z 11/07 [719/32 Attention 89593 81814 Out] 1204z Weak QRN3 QSB3	Spectre	WED
11:	5z 22/08 [716/37 38722 69483 12484 18699 9956820351] Fair	RNGB	WED
154	,	Marco	SUN
16388kHz 11	0z 20/07 [958/31 11734 84789 61529 88578 2337761748] Good	RNGB	FRI
11	,	RNGB	FRI
	,		
11	· · · · · · · · · · · · · · · · · · ·	RNGB	MON
11		RNGB	MON
11	,	Malc	MON
11	z 17/08 [956/31 55576 84904 27154 70096 6873790468] Out 1118z S3	Malc	FRI
E11c			
July/August			
8102kHz 200	oz 03/07 [757/0000/00] 2003z Fair QRN3 QSB3	Spectre	TUE
200		RNGB	TUE
200	·	RNGB	TUE
	, ,		
200		Malc, RNGB	TUE
200		DLBB	TUE
200		RNGB	TUE
200	28/08 [757/2100/00] Strong	RNGB	TUE
10487kHz 192	5z 23/08 [758/0000/00] Good	RNGB	THU
<u>E17z</u>			
July:			
<u> </u>			
12850kHz080	z 12/07[674 Heard Call Only] 0805z Very Weak QRN3 QSB4	Spectre	THU
12030KHZ000	12/07[074 Heald Call Olly] 08032 Very Weak QKN3 QSB4	Specife	Inu
1.68001 == 0.11	05/05/57/0		
16780kHz080		GD	THU
080		GD, Spectre	THU
080	19/07[674 820 5 33796 13577 74526 46647 79302] Weak, QSB	RNGB	THU
080	oz 26/07[820 5 33796 13577 74526 46647 79302 00000]	GD, FN	THU
August:			
GD writes 02/	8, Usual problem with E17z on 16780, call 674 perfectly readable for 3.5 minutes, then fades out when sending	o the message	
	Just the same plus heavy QRM.	ig the message.	
0010 OH 1203	oust the same plus heavy given.		
120501-11-001	02/08[674] with boom OBM	CD	THIT
12850kHz081		GD	THU
08	·	M8	THU
08		JO	THU
08	- 22/00[C74 225 0 4C521 222C4 705C4 0001C 22154 CC427 07051 70021 225 0 0 0 0 0 0 0 0 0 0 0 0	JO	THU
	23/08[674 235 8 46531 23264 78564 80816 23154 66437 87851 78931 235 8 0 0 0 0 0] QSA2/3	30	
16780kHz080		GD	THU
16780kHz080 080	z 02/08[674] fades out on msg		THU THU
	z 02/08[674] fades out on msg 02/08[674] 912 5 07348 98560 53039 48985 80647 912 5 00000] Weak, readable RNGB, GD,	GD	

E23 [XI] Frequencies and Times. All SSB [From AnonUK]

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

	We	ek 1	W	eek2	W	eek 3	Wee	ek 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 [O] July:

9450kHz0941z 21/07 MP SAT

950

30 grps

5841 0276 1764 5036 9428 4940 9451 0287 4006 3719 2513 7030 9356 4581 0167 0680 5573 9027 6379 2971 0764 3497 1135 8807 3040 7972 3010 0759 5764 2628

An 0951z they switched to 6140 kHz, but this time the YL had echo. The transmission kept repeating following the usual procedure (1000 Hz tone, YL calling etc) till 1426z. Since I wasn't near my radio for that long, they may went off air for brief periods of time.

Both transmissions were AM and near the end of the session, signal strength was very good

9450kHz1205z	30/07[tone 752 752 tone MSG RBT EOM tone] 1210z QSA2 YL	Fanis	MON
9450kHz1213z	30/07[song 835 835 MSG RBT EOM EOT Second TX msg was 9999 repeated] 1222z QSA2 YL	Fanis	MON
August:			
9450kHz1200z	02/08 [tone 275 275 MSG RBT EOM EOT MSG : 5051 280 280 (280 Rx14)] 1205z QSA2 YL	Fanis	THU
9450kHz1243z	16/08[440 5180 5080 5240 9727 4818 3961 4808 5240] 1249z tone, YL, QSA5, QSB2	MG	THU
9450kHz1317z Manolis reports: YL	16/08[780 9351 1070 9240 9145 9393 1034 3732] 1324z tone, YL slow, QSA5 sounded like a tape recording played at a slower speed.	MG	THU
9450kHz1318z	26/08[780 3292 2051 9120 1814 6385 6617 9330 8673 6716 0536 7455 3795 7410 3976 9120] 1324z tone, EOM only, QSA5 serial/gc grp 2051 repeated grp 9120 Previous E25 log included a message to 780 but without the repeated group.		SUN
9450kHz1315z	27/08[tone 780MSGRBTEOM EOT] 1320z QSA2 YL	Fanis	MON
<u>E25a</u>			
6140kHz1028z	25/07[675 7?]1031z YL, difficult copy	MG	WED

G06[1A]

PoSW's logs and analysis

Second + Fourth Thursdays in the Month 1830 UTC Schedule:-

An AM transmission, carrier off-frequency, low signal strength, difficult to copy.

12-July-12:- $6,887\,\mathrm{kHz}$, calling "842", DK/GC "209 209 15 15", signal strength varying S5 to S7, FSK signal on LF side.

26-July-12:- 6,887 kHz, "842" and "209 209 15 15" again, good signal on a clear frequency.

9-Aug-12:- 6,887 kHz, started approx. 40 seconds before the half hour Call "842", DK/GC "325 325 15 15". Good signal, no interference.

Friday Following Second + Fourth Thursdays in the Month 1930 UTC Schedule:-13-July-12:- 5,943 kHz, call "218", DK/GC "116 116 15 15", good signal on a clear frequency inside the 49 metre broadcast band.

27-July-12:- 5,943 kHz, "218" and "116 116 15 15" as on the 13th.

10-Aug-12:- 5,943 kHz, started early, call-up in progress when tuned in 30s before the half

hour. Call "218", DK/GC "163 163 15 15". S9 signal on a clear frequency. Perhaps evidence of the decline in short wave broadcasting? I am sure there was a time not so very long ago when the 49 metre band would be packed with powerful stations at this time of the evening in English as well as other European languages.

First + Second Mondays in the Month 1700 + 1800 UTC Schedule:-2-July-12:- 1700 UTC, 5,284 kHz, calling "154" for a full message - most unusual for this schedule - very weak signal, only just detectable. 1800 UTC, 4,896 kHz, second sending, started early, call-up in progress when tuned in a few seconds before the hour. Very weak, still in progress and just a little bit stronger when checked again 1825z. Ended approx. 1837z, sounded like DK/GC "822 822 121 121" and the usual "00000". Couldn't find a "next day repeat" on Tuesday 3rd, so was either not the usual format or was so weak as to be inaudible.

Other's logs:

July:

July.						
5943kHz1930z 1930z	13/07[218 116 15 73920 43728 116 15 00000] Strong signal, moderate noise 27/07[218 116 15 73920 43728 116 15 00000(s)] Weal, QSB2 (6m33s)		FR, Spectre JO, PLdn	FRI FRI		
	218 116 15 73920 64719 47288 64924 53710 53829 86361 43428 19547 38294 43728 19362 17382 38901 43728 116 15 00000 Courtesy FR, Spectre					
	Note that the 11th and 15th group are the same.					
6887kHz1830z	12/07[842 209 15 53821 43261 209 15 00000]		EL	THU		
	842 209 15 53821 12638 42987 60153 27493 05401 36272 42819 26491 29104 64729 26194 36291 37290 43261 209 15 00000 Courtesy Elmar					
1830z	26/07[842 209 15 53821 43261 000 000] Strong		PLdn	THU		
6948kHz0800z 0800z 0800z 0800z	02/07[21500000]0825z too weak to copy 16/07 with long messaage – but too weak to copy 23/07[215msg too weak to copy]0825z S1 30/07[215 364 77 21180 29167 07133] 0825z Fair QSB2		M8 RNGB M8 Hans	MON MON MON MON		
August:						
5943kHz1930z 1930z	10/08[218 163 15] variable signal, QRM, QSB unable to copy 24/08[218 163 15 15263 84032 163 15 00000(s)] 1937z Strong	(6m58s)	FR PLdn	FRI FRI		
6887kHz1830z 1830z	09/08[842 325 15 53829 29173 325 15 00000(s)] 1837z Strong 23/08[842 325 15 53829 29173 325 15 00000(s)] 1837z Strong, XJTQRM2	(6m37s) (7m09s)	PLdn PLdn	THU THU		
6948kHz0800z 0800z 0800z	0800z 20/08[215 215 215 00000]0802z S1 M8					
RNGB's logs for Jul	ly and August:					
July/August Thurs 26/07	18:30 6887 '842' 209 15 53821 10638 42987 60153 2749343261					

Thurs	26/07	18:30	6887	1842 209 15 53821 10638 4298 / 60153 2 / 493 43261
Friday	27/07	19:30	5943	'218' 116 15 73920 64719 47288 64924 5371043728
Monday	30/07	08:00	6948	'215' 364 77 21180 29167 48414 92515 36392
Monday	06/08	08:00	6948	'215' 00000
Monday	06/08	17:00	5284	154' 00000
Monday	27/08	08:00	6948	'215' 00000

G11(III) July/August

3815kHz	2000z	01/07 [262/00] Strong signal, moderate noise		Fox	SUN
	2000z	08/07 [262/00]		RNGB	SUN
	2000z	13/07 [262/00]		RNGB	FRI
	2000z	15/07 [262/00] Ende 2003z Strong	(3m22s)	PLondon	SUN
	2000z	22/07 [266/35 A 12606 82210] Ende 2010z Strong	(10m21s)	PLondon	SUN
	2000z	27/07 [262/00] Ende 2003z Weak, QRM2	(3m16s)	PLondon	FRI
	2000z	29/07 [262/00] Fair with QRM		Gary	SUN
	2000z	03/08 [262/00] Ende 2003z Strong	(3m23s)	PLondon	FRI
	2000z	05/08 [262/00] Ende 2003z Strong 1758z	(3m23s)	PLondon	SUN
	2000z	10/08 [266/35 A51184 99399] Ende 2010z Strong	(10m22s)	PLondon	FRI
	2000z	17/08 [262/00]		RNGB	FRI
	2000z	19/08 [262/00] Good		RNGB	SUN
	2000z	26/08 [262/00] 2003z Strong w/poor audio		Hans	SUN

5815kHz	1755z	01/07 [270/00] Strong signal, moderate noise		Fox	SUN
	1755z	03/07 [278/32 Achtung 82929 Ende] 1804z Fair STANAGQRM4 QSB3		Spectre	TUE
	1755z	08/07 [278/32 82929 35736 17074 00243 7061690780]		RNGB	SUN
	1755z	10/07 [270/00] 1758z Fair QRN2 QSB2		Spectre	TUE
	1325z	13/07 [290/38 93177 53640 23892 22732 5751633135]		Elmar	FRI
	1755z	15/07 [270/00] Ende 1758z Strong	(3m23s)	PLondon	SUN
	1755z	17/07 [270/00]		RNGB	TUE
	1755z	22/07 [270/00] Ende 1758z Strong	(3m23s)	PLondon	SUN
	1755z	29/07 [270/00] Ende 1758z Strong	(3m23s)	PLondon	SUN
	1325z	03/08 [295/36]Very weak with strong noise		DLBB	FRI
	1755z	05/08 [270/00] Ende 1758z Strong 1758z	(3m19s)	PLondon	SUN
	1325z	24/08 [299/00] 1328z QSA3		Marco	FRI
	1755z	26/08 [270/00] 1758z Strong BC-QRM3		Hans	SUN
	1755z	28/08 [270/00] Strong		RNGB	TUE

S06

We start with Richard's report:

S06 log July:

Saturday	7th	19:00	11438	'314' 00000
		19:30	7884	'843' 00000
		20:00	6916	'416' 00000
		20:00	9432	'314' 00000
Monday	9th	19:00	7982	'349' 00000
•		19:15	13505	'376' 280 139 31076 91916 82015 68296 2424300595
Monday	16th	19:05	6984	'349' 00000

S06s report July:

ID 328 reverted to null sending from at least the 11th and possibly the 4th of the month and still sending nulls at the beginning of August. Using 9824/10541/10912/11425/11824/12413kHz
ID 425 reverted to null sending on 19th July using 11123/11816/12574/13145/13910/14814

Still no reports as to the whereabouts of IDs 176, 371, 418 and 872 (they must be out there!)

E17z (the only English language ID from this group) has repeated S06s messages. See log below. Many messages this month have been very common repeats. (See below under Repeated messages)

S06s log July:

Monday			
2nd/9th	1200/1210	10230/12165	'831' 479 5 20336 17301 88554 32045 36398
16th/23rd			'831' 204 5 21767 53672 11834 81022 36903
Tuesday			
3rd/10th	0600/0610	16735/15230	'438' 210 5 57440 10597 23521 47660 92883
17th/24th			'438' 270 5 47665 94092 48521 63888 92060
3rd/10th	0700/0715	5430/6780	'374' No reports
17th/24th			'374' 591 6 53516 25616 56079 96813 14199 42036
3rd/10th	0800/0810	14373/12935	'352' 890 6 82707 06123 22536 88280 84116 31670
17th/24th			'352' 971 6 05899 50387 45847 23013 89758 48758
3rd/10th	1500/1510	6666/7744	'537' 284 6 89758 52343 79628 42432 56075 46281
17th/24th			'537' 219 6 58219 50514 76667 80823 73964 57910
Wednesd		11.405/10/50	(152) 0 < 0 5 15000 22505 14 < 00 02010 050 < 5 44 420 02002
	0530/0540	11435/12650	'153' 968 7 15009 33795 14600 92918 97067 41438 03092
18th/25th	0.700 (0.710	5005/11000	'153' 268 7 11171 64385 82707 06124 22536 88280 53718
4th/11th	0730/0740	7335/11830	'745' 980 6 17358 82218 65974 57623 88154 15751
18th/25th			'745' 209 6 21767 53672 11834 81022 36903 41412
4th/11th	0820/0830	6755/5835	'471' 905 6 53754 42788 64580 61384 96959 89345
18th/25th			'471' 203 5 46062 68672 97478 39685 30485
11th	0840/50/00/10/20/30	9824/10541/10912/11	
18th/25th			'328' 00000
4th/11th	1000/1010	14580/16020	'729' 803 5 67423 89674 34215 89563 09841
18th/25th			'729' 403 5 52401 63919 92699 14600 72438
4th/11th	1200/1210	7765/6815	'481' 205 6 46312
18th/25th			'481' 502 6 09394 76911 75155 92918 97067 58604
4th/11th	1230/1240	7545/8220	'967' 413 5 24540 62500 19564 66912 51550
18th/25th			'967' 823 5 88620 58069 61732 745-7 57440
(D) 1			
Thursday		1.6790/12050	'674' 915 8 33796 13577 74526 46647 79302 53516 25616 56069
5th/12th	0800/0810 (E17z)	16780/12850	
19th/6th	0000/0010	10050/10565	'674' 820 5 33796 13577 74526 46647 79302
5th/12th	0900/0910	12952/13565	'167' 290 5 52401 63919 92699 14600 47248
19th/26th	0020/0040	0055/5/00	'167' 932 5 26320 36793 53038 76342 15009
5th/12th	0930/0940	9255/7630	'314' No reports
19th/26th	1200/1210	1015541505	'314' 270 5 46431 28760 89076 36574 11096
5th/12th	1200/1210	12155/14535	'425' 913 6 48754 65125 41879 84648 42036 76911
19th/26th	00/10/20/30/40/50	11123/11816/12574/1	3145/13910/14814

Friday			
6th/13th 0	0600/0610	7845/9125	'196' 478 5 48834 53735 61088 02440 59354
20th/27th			'196' 487 5 47783 47098 56483 46381 11890
6th/13th 0	06000610	8720/10415	'934' 560 7 47891 23247 17099 94961 35826 65906 77233
20th/27th			'934' 582 6 70957 45361 11209 45671 77342 09801
6th/13th 0)930/0940	10290/9655	'516' 403 7 39534 17228 15636 47891 23247 17099 94961
20th/27th			' 516' 209 7 67546 89706 45312 23165 78453 89671 45431
Saturday 7th 1	1200/1210	12460/10250	'254' No reports
Repeated g	roups:		

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Repeated	groups.			
Mon Weds	16th July 2012 18th/25th 2012			'831' 204 5 21767 53672 11834 81022 36903 '745' 209 6 21767 53672 11834 81022 36903 41412
Thursday	1 Apr 2010	09.00	12,952	167 [*] 492 5 21676 53672 11834 81022 36903
Tuesday	16 Feb 2010	08.00	10,265	'352' 970 6 21767 35672 11834 81022 36903 41412
Thursday	1 Apr 2010	12.10	13,065	'425' 973 6 21767 35672 11834 81022 36903 41412
Thursday	17 Nov 2011	12.00	12,155	'425' 903 6 21767 53672 11834 81022 36903 41412
Weds	18th July 2012			'153' 268 7 11171 64385 82707 06124 22536 88280 53718
Weds	7 Dec 2011	19.00	8,530	'371' 520 6 11171 64385 82707 06123 225-6 78280
Weds	18th/25th July 2012			'471' 203 5 46062 68672 97478 39685 30485
Weds	16 Jun 2010	19.00	10,170	'371' 829 5 46062 67672 97478 39685 30485
Saturday	27 Mar 2010	10.10	7,340	'893' 407 5 46062 68672 97478 39685 30485
Thursday	17 Nov 2011	09.00	12,952	167° 945 8 46062 68672 97478 39685 30485 96632 52537 53317
Tuesday	13 Dec 2011	07.00	5,250	'371' 265 8 46062 68672 97478 39685 30485 96632 52537 53317
Weds	18th/25th July 2012			'729' 403 5 52401 63919 92699 14600 7243 8
Thursday	5th/12th July 2012	0900	12952	'167' 290 5 52401 63919 92699 14600 47248
Tuesday	21 Dec 2010	12.30	5,810	'278' 409 5 52401 63919 92699 14600 74248
Friday	18 Nov 2011	07.10	8,215	'196' 843 5 52401 63919 92699 14600 74248
Friday	25 Nov 2011	07.00	7,150	'196' 843 5 52401 63919 92699 14600 74248
Weds	22 Jun 2011	07.30	7,335	'745' 892 6 52401 63919 92699 14600 74248 48754
Weds	18th/25th July 2012			'481' 502 6 09394 76911 75155 92918 97067 58604
Saturday	17 Apr 2010	10.10	7,340	'893' 210 5 09394 76911 75155 92918 96067
Weds	18th/25th July 2012			'967' 823 5 88620 58069 61732 745-7 57440
Weds	7 Dec 2011	12.00	7,030	'481' 509 6 88620 58069 61732 74537 57440 10597
Tuesday	6 Jul 2010	08.00	7,245	'418' 967 5 88620 68069 61732 74537 57440
5th/12th	0800/0810 (E17z)	16780/128	850	'674' 915 8 33796 13577 74526 46647 79302 53516 25616 56069
19th/6th				674 820 5 33796 13577 74526 46647 79302
Weds	7 Jul 2010	05.30	11,435	153° 294 6 33796 13577 74526 46646 79302 52516
Thursday	4 Mar 2010	12.00	10,580	'425' 810 6 33796 13577 74526 46647 79302 53516
Weds	15 Jun 2011	08.40	10,120	'328' 957 6 33796 13577 74526 46647 79302 53516

This July's messages are in **bold** type

S06 log August:

SU6 log A	ugust:				
Thursday	2nd	08:30	16327	'842' 196 30 groups (weak)	
		19:05	6984	'349' 00000	
Saturday	4th	16:00	8157	'134' 00000	
		19:00	11438	'314' 00000	
		19:00	7847	'416' 00000	
		19:35	6783	'843' 00000	
		20:00	9432	'314' 00000	
		20:00	6916	'416' 00000	
Monday	6th	19:05	6984	'349' 00000	
Thursday	16th	19:00	7982	'349' 00000	
Friday	17th	08:30	16327	'842' 916 32 93552 62234 46395 36511 8641764384	
•		09:30	13875	'842' 916 32 93552 62234 46395 36511 8641764384	
Saturday	18th	16:05	6983	'134' 00000	
•		20:00	6916	'416' 00000	
		20:00	9432	'314' 00000	
Thursday	23rd	19:05	6984	'349' 00000	

S06s report August:

ID 371 has moved from its Wednesday evening slot to Mondays at 0700/0710 using 8221/9353

ID 745 started sending nulls from the 8th of the month on 9395/9645/9933 and 11637 (just 4 frequencies instead of the usual 6)

Starting at 0740. Despite 2 weeks of searching nothing else was found at 0730 or 0820

The 4th week found ID 745 moving times to 0800/0810 on 12110/14977 still sending 00000

ID 328 returned to message sending and normal schedule on the 8th of the month.

ID 153 vanished from the scene from the 15th of the month. Previously this station has moved to 0800/0810 when null sending, but nothing found this month so far!

 $\ensuremath{\mathrm{ID}}\xspace\,425$ returned to message sending on the 9th using normal schedule.

S06s log August: Monday

0700/0710 8221/9353 $\hbox{`371'}\ 208\ 5\ 18290\ 47638\ 76902\ 34290\ 10925$ 27th 6th/13th 1200/1210 10230/12165 '831' 452 6 40613 66610 20336 17302 32045 24041 20th/27th **'831' 495 6 87463 56473 89201 98073 23546 77109**

T 1				
Tuesday 7th/14th	0600/0610	16735/152	230	'438' 216 5 47854 65125 41879 84646 42036
21st/28th	0000/0010	10/33/132	230	'438' 219 5 78326 56473 19027 89891 12367
7th/14th	0700/0715	5430/6780)	'374' 508 6 45202 22623 82551 54567 21874 42543
21st/28th				'374' 506 8 08527 79200 05507 82616 32447 54139 15901 52630
7th/14th	0800/0810	14373/129	935	'352' 807 6 65518 35286 28464 53239 50056 09175
21st/28th 7th/14th	1500/1510	6666/7744	1	'352' 916 7 73195 23689 55860 10952 45556 15660 12828 '537' 240? Very weak
21st/28th	1300/1310	0000/1/4-	•	'537' 841 6 78635 45312 80967 45326 56563 12111
Wednesda	ay			
1st/8th	0530/0540	11435/126		'153' 926 7 83981 24035 48115 24151 51802 23807 15521
1st	0730/0740 0740/50/0800/10 93	7335/1183		'745' 208 6 67545 78674 89563 09785 12315 56534 '745' 00000
22nd	0800/0810	12110/149		'745' 00000 '745' 00000
1st/8th	0820/0830	6755/5835		'471' 209 5 67453 79856 13215 78563 80945
15th/22nd				'471' 238 5 08527 79200 05507 82616 32447
1st	0840/50/00/10/20/30	9824/1054	11/10912/11	1425/11824/12413kHz '328' 00000
8th	0840/0850	10120/967	70	'328' 590 6 29256 95845 56158 53538 01903 73244
15th/22nd		10120/70/		'328' 597 6 04705 77200 70414 69280 68555 11825
1st/8th	1000/1010	14580/160)20	'729' 801 5 67453 89673 13265 89645 09532
15th/22nd				'729' 860 5 56738 70951 76308 74860 20687
1st/8th	1200/1210	7765/6815	5	'481' 572 6 67453 89674 56423 12316 89856 90867
15th/22nd 1st/8th	1230/1240	7545/8220	`	'481' 937 5 73208 65255 44161 09548 25831 '967'
15th/22nd		1343/6220	,	'967' 834 5 50312 29037 16146 51174 56893
1341/22114				707 03 13 30312 27037 101 10 3117 1 30073
Thursday	•			
2nd/9th	0800/0810 (E17z)	16780/128	350	674' 912 5 07348 98560 12039 48981 80647
16th/23rd	0000/0010	12052/126		'674' 235 8 46531 23264 78564 80856 23154 66437 87851 78931
2nd/9th 16th/23rd	0900/0910	12952/135	000	'167' 943 5 25810 14622 09192 33586 92042 '167' 294 5 53421 89674 56423 18576 33219
2nd/9th	0930/0940	9255/7630)	'314' 926 ??
16th/23rd				'314' 278 5 45325 78645 89760 90532 12185
2nd	1200/10/20/30/40/50	11123/118	316/12574/	13145/13910/14814
9th/16th	1200/1210	12155/145	535	'425' 830 6 52457 55534 98743 47532 54297 83255
23rd	1200/1210	12133/110	,55	425' 973 6 91827 56473 90806 24358 55618 69110
Friday			_	
3rd/10th	0600/0610	7845/9125	5	'196' 453 7 90769 98928 27990 56922 12654 38348 61080
17th/24th 3rd/10th	06000610	8720/1041	15	'196' 874 5 67423 89674 13214 56434 76849 '934' 527 6 73177 00796 23576 93929 33366 04800
17th/24th	00000010	0720/1041		'934' 275 6 67543 89674 45423 12164 78645 90785
3rd/10th	0930/0940	10290/965	55	'516' 408 7 86320 58069 61732 74537 57440 10597 23521
17th/24th				'516' 893 7 08527 79200 05507 82616 32447 54139 71689
g				
Saturday 4th	1200/1210	12460/102	250	'254' 981 6 24035 48115 24151 51802 23807 64385
4111	1200/1210	12400/102	230	234 761 0 24033 46113 24131 31602 23607 04363
Repeated	groups:			
Weds	15/08/2012	08:20	6755	471 238 5 08527 79200 05507 82616 32447
Friday	17/08/2012	09:30	10290	516 893 7 08527 79200 05507 82616 32447 54139 71689
Tuesday	28/08/2012	07:15	6780	374 506 8 08527 79200 05507 82616 32447 54139 15901 52630
O	,			
Onto othe	r's messages:			

<u>S06</u> <u>July:</u>

6783kHz1935z	14/07[843 00000] 1939z Weak STANAGQRM3 QSB3	Spectre	SAT
6983kH1605z	14/07[134 00000]1609 S5	M8	SAT
6984kHz1905z 1905z 1905z	05/07[349 00000] Very strong signal, moderate noise 16/07[349 00000]1908z S9+10 30/07[349 00000] 1909z Fair QRM2 QSB2	FR, Spectre M8,Spectre MP	THU MON MON
7982kHz1900z 1900z	02/07[349 00000] 1904z Fair QRN3 QSB2 12/07[349 00000] 1904z Strong QRN3 QSB2	Spectre Spectre	MON THU
8157kHz 1600z	14/07[134 00000] 1604z Fair QRN3 QSB2	Spectre	SAT

August:

4896kHz18	00z 13/08[154 00000]1803z S7	M8	MON
5284kHz17	00z 13/08[154 00000]1703z S1	M8	MON
6916kHz20	00z 04/08[416 00000] 2004z weak QRM1 QSB2	MP, Hans	SAT
6983kHz16	05z 11/08[134 00000]1609z S3 25/08[843 00000] 1939z Strong	M8 Hans	SAT SAT
7847kHz19	00z 04/08[416 00000] 1904z Strong	Hans	SAT
11438kHz19	00z 04/08[314 00000] 1904z Fair	Hans	SAT

S06b No Reports

S06c No Reports

S06e No Reports

<u>S06s</u> <u>July:</u>

<u> </u>			
5835kHz0820z 0820z	04/07[471 905 6 53754 42788 64580 61384 96959 89345 905 6 00000(s)] 0825z Weak QRN3 QSB3 11/07[471 905 6 53754 42788 64580 61384 96959 89345 905 6 00000(s)] 0825z Fair QRN3 QSB3	Spectre Spectre	WED WED
6666kHz1500z 1500z 1500z	10/07[537 284 6 89758 52343 79628 42432 59095 46281 284 6 00000(s)] 1505z Weak QRN3 QSB4 17/07[537 219 6 58219 50514 76667 80823 73964 57910 219 6 00000(s)] 1505z Fair QRN4 QSB2 24/07[537 219 6]1505z S1	Spectre Spectre M8	TUE TUE TUE
6755kHz0830z 0830z (Note 471	04/07[471 905 6 53754 42788 64580 61384 96959 89345 905 6 00000(s)] 0835z Weak QRN3 QSB2 11/07[471 905 6 53754 42788 64580 61384 96959 89345 905 6 00000(s)] 0835z Weak QRN3 QSB3 schedule 6755/5835kHz 0820/0830z 04/07, was found transmitting in LSB mode instead of USB mode.)	Spectre, MP Spectre	WED WED
6815kHz1210z	11/07[481 Heard Call Only] 1215z Weak QRN3 QSB4	Spectre	WED
7335kHz0730z 0730z 0730z	04/07[745 980 6 17358 82218 65974 57623 88154 15751 980 6 00000] Strong, moderate noise 11/07[745 980 6 17358 82213 65974 57623 88154 15751 980 6 00000(s)] 0735z Fair QRN3 QSB3 18/07[745 209 6 21767 53672 11834 81022 36903 41412 209 6 00000(s)] 0735z Weak QRN3 QSB3	FR, Spectre Spectre Spectre	WED WED WED
7744kHz1510z 1510z 1510z	10/07[537 284 6 89758 52343 79628 42432 59095 46281 284 6 00000(s)] 1515z Weak QRN3 QSB3 17/07[537 219 6 58219 50514 76667 80823 73964 57910 219 6 00000(s)] 1515z Fair QRN4 QSB3 25/07[537 219 6 58219 50514 76667 80823 73964 57910 219 6 00000]1515z S2	Spectre Spectre M8	TUE TUE TUE
7765kHz1200z	11/07[481 Heard Call Only] 1205z Weak QRN3 QSB4	Spectre	WED
9255kHz0930z	09/08[314 weak]	M8	THU
9655kHz0940z 0940z 0940z	06/07[516 403 7 39534 17228 15636 47891 23247 17099 94961 403 7 00000(s)] 0946z Weak QRN3 QSB3 Sp 13/07[516 403 7 39534 17228 15636 47891 23247 17099 94961 403 7 00000]1045z S9 20/07[516 209 7 67546 89706 45312 23165 78453 89671 45431 209 7 00000]0945z S7	pectre FRI M8, Spectre M8	FRI FRI
10230kHz1200z 1200z 1200z 1200z 1200z	02/07[831 479 5 20336 17301 88554 32045 36398 479 5 00000]1205z S1 FADING 09/07[831 479 5 20336 17301 88554 32045 36398 479 5 00000(s)] 1205z Weak QRN3 QSB3 Spectre MON 16/07[831 Heard Call Only] 1205z Weak QRN4 QSB4 Spectre MON 23/07[831 204 5 21767 53672 11834 81022 36903 204 5 00000] Strong signal, strong noise	M8, Spectre FR, M8, Spectre	MON MON
10290kHz0930z 0930z 0930z	06/07[516 403 7 39534 17228 15636 47891 23247 17099 94961 403 7 00000[s]] 0936z Weak QRN3 QSB3 13/07[516 403 7 39534 17228 15636 47891 23247 17099 94961 403 7 00000]1035z S9 20/07[516 209 7 67546 89706 45312 23165 78453 89671 45431 209 7 00000]0935z S9	Spectre M8, Spectre M8	FRI FRI FRI
11435kHz0530z	04/07[153 968 7 15009 33795 14600 92918 97067 41438 03092 968 7 00000(s)] 0536z Very Weak QRN4 QS	B4 Spectre	WED
0530z 0530z 1	11/07[153 968 7 15009 33795 14600 92918 97067 41438 03092 968 7 00000(s)] 0536z Fair QRN2 QSB3 18/07[153 268 7 11171 64385 82707 06124 22536 88280 53718 268 7 00000(s)] 0536z Weak STANAGQRM	Spectre 13 QSB3	WED
11830kHz0740z 0740z 0740z 0740z	04/07[745 980 6 17358 82218 65974 57623 88154 15751 980 6 00000] Strong signal, QRM 11/07[745 980 6 17358 82213 65974 57623 88154 15751 980 6 00000(s)] 0745z Strong QRN3 QSB2 18/07[745 209 6 21767 53672 11834 81022 36903 41412 209 6 00000(s)] 0745z Weak QRN3 QSB3 25/07[745 209 6 21767 53672 11834 81022 36903 41412 209 6 0 0 0 0 0 0]	Spectre FR, MP, Spectre Spectre Spectre AR	WED WED WED WED WED
12155kHz1200z 1200z	05/07[425 913 6 48754 65125 41879 84648 42036 76911 913 6 000000]1205z S9+10 09/08[425 830 6 52457 55534 98743 47532 54297 83255 830 6 00000]1205z S9+10	M8 M8	THU THU
12165kHz1210z 1210z 1210z 1210z 1210z	02/07[831 479 5 20336 17301 88554 32045 36398 479 5 00000]1215z S3 09/07[831 479 5 20336 17301 88554 32045 36398 479 5 00000(s)] 1215z Weak QRN3 QSB3 16/07[831 Heard Call Only] 1215z Weak QRN4 QSB4 23/07[831 204 5 21767 53672 11834 81022 36903 204 5 00000] Strong signal, strong noise	M8, Spectre Spectre Spectre FR, M8	MON MON MON MON
	· ·		

12650kHz0540z	04/07[153 968 7 15009 33795 14600 92918 97067 41438 03092 968 7 00000(s)] 0546z Very Weak QRN4 Q	SB4	
0540z	11/07[153 968 7 15009 33795 14600 92918 97067 41438 03092 968 7 00000(s)] 0546z Fair QRN3 QSB3	Spectre	WED
0540z	18/07[153 268 7 11171 64385 82707 06124 22536 88280 53718 268 7 00000(s)] 0546z Weak QRN3 QSB3	Spectre Spectre	WED WED
12935kHz0810z 0810z 0810z	03/07[352 890 6 82707 06123 22536 88280 84116 31670 890 6 00000(s)] 0815z Fair QRN4 QSB3 10/07[352 890 6 82707 06123 22536 88280 84116 31670 890 6 00000(s)]0815z Weak QRN2 QSB3 24/07[352 971 6 05899 50387 45847 23013 89758 48758 971 6 00000]0815z S9	Spectre Spectre M8	TUE TUE TUE
12952kHz0900z	09/08[167 943 5 25810 14622 09192 33586 92042 943 5 00000]0905z S6	M8	THU
14373kHz0800z 0800z 0800z	03/07[352 890 6 82707 06123 22536 88280 84116 31670 890 6 00000(s)] 0805z Fair QRN4 QSB3 10/07[352 890 6 82707 06123 22536 88280 84116 31670 890 6 00000(s)] 0805z Weak QRN2 QSB2 24/07[352 971 6 05899 50387 45847 23013 89758 48758 971 6 00000]0805z S9	Spectre Spectre M8	TUE TUE TUE
14535kHz1210z 0910z 1210z	05/07[425 913 6 48754 65125 41879 84648 42036 76911 913 6 0000000]1215z S9 09/08[167 943 5 25810 14622 09192 33586 92042 943 5 00000]0905z S9+20 09/08[425 830 6 52457 55534 98743 47532 54297 83255 830 6 00000]1215z S9+20	M8 M8 M8	THU THU THU
14580kHz1000z 1000z 1000z	04/07[729 803 5 67423 89674 34215 89563 09841 803 5 00000(s)] 1005z Weak QRN3 QSB3 11/07[729 803 5 67423 89674 34215 89563 09841 803 5 00000(s)] 1005z Fair QRN3 QSB3 18/07[729 403 5 52401 63919 92699 14600 72438 403 5 00000(s)] 1005z Fair QRN2 QSB2	Spectre Spectre Spectre	WED WED WED
15230kHz0610z	17/07[438 270 5 47665 94092 48521 63888 92060 270 5 00000(s)] 0615z Fair QRN2 QSB2	Spectre	TUE
16020kHz1010z 1010z 1010z 1010z	04/07[729 803 5 67423 89674 34215 89563 09841 803 5 00000(s)] 1015z Weak QRN3 QSB3 11/07[729 803 5 67423 89674 34215 89563 09841 803 5 00000(s)] 1015z Fair QRN3 QSB3 18/07[729 403 5 52401 63919 92699 14600 72438 403 5 00000(s)] 1015z Fair QRN2 QSB2 25/07[729 403 5 52401 63919 92699 14600 72438 403 5 00000] Very strong signal, QRM	Spectre Spectre Spectre FR	WED WED WED
16735kHz0600z	17/07[438 270 5 47665 94092 48521 63888 92060 270 5 00000(s)] 0605z Fair QRN2 QSB2	Spectre	TUE
August:			
5835kHz0830z 0830z	01/08[471 ?????] Too weak to copy, moderate noise 22/08[471 238 55 08527 79200 05507 82616 32447 238 55 00000] 0835z Weak QRM2	FR MP	WED WED
6755kHz0820z	22/08[471 238 55 08527 79200 05507 82616 32447 238 55 00000] 0825z Fair	MP	WED
6780kHz0715z	28/08[374 506 8 08527 79200 05507 82616 32447 54139 15901 52630 505 8 00000]0721z QSA4 QRM3	MP	TUE
6815kHz1210z	01/08[481 572 6 67453 89674 56423 12316 89856 90867 572 6 00000] Strong, QRM	FR	WED
7335kHz0730z	01/08[745 208 6 67545 78674 89563 09785 12315 56534 208 6 00000] Very strong QRM	FR	WED
7765kHz1200z	01/08[481 572 6 67453 89674 56423 12316 89856 90867 572 6 00000] Strong, QRM	FR	WED
9655kHz0940z 0940z 0940z	10/08[516 408 7 86320 58069 61732 74537 57440 10597 23521 408 7 00000]0945z S9+15 17/08[516 893 7 08527 79200 05507 82616 32447 54139 71689 893 7 00000]0945z S5 24/08[516 893 7 08527 79200 05507 82616 32447 54139 71689 893 7 00000] 0945z QSA4 QRM3	M8 M8 MP	FRI FRI FRI
10230kHz1200z	13/08[831 452 6 40613 66610 20336 17302 32045 24041 452 6 00000]1205z S1	M8	MON
10290kHz0930z 0930z	10/08[516 408 7 86320 58069 61732 74537 57440 10597 23521 408 7 00000]0935z S9+20 17/08[516 893 7 08527 79200 05507 82616 32447 54139 71689 893 7 00000]0935z S7	M8 M8	FRI FRI
11435kHz0530z	01/08[153 ??????] Too weak to copy, strong noise	FR	WED
11830kHz0740z	01/08[745 208 6 67545 78674 89563 09785 12315 56534 208 6 00000] Strong, QRM	FR	WED
12165kHz1210z 1210z	13/08[831 452 6 40613 66610 20336 17302 32045 24041 452 6 00000]1215z S2 27/08[831 495 6 87463 56473 89201 98073 23546 77109 495 6 0 0 0 0 0] 1216z QSA3/4 QSB2	M8 JO, Hans	MON MON
12650kHz0540z	01/08[153 926 7 83987 2?????] Too weak to copy, strong noise	FR	WED
12935kHz0810z 0810z 0810z	07/08[3520000] 0816z weak QRM5 14/08[352 807 6 65518 35286 28464 53239 50056 09175 807n 6 00000]0815z S8 28/08[352 916 7 73195 23689 55860 10952 45556 15660 12828 916 7 00000]0815z QSA4	MP M8 MP	TUE TUE TUE
12952kHz0900z 0900z	16/08[167 294 5 53421 89674 56423 18576 33219 294 5 0 0 0 0 0] QSA3 23/08[167 294 55 53421 89674 56423 18576 33219 294 55 00000] 0905z S9+10	JO MP	THU THU
13565kHz0910z 0910z	16/08[167 294 5 53421 89674 56423 18576 33219 294 5 0 0 0 0 0] QSA3/2 23/08[167 294 55 53421 89674 56423 18576 33219 294 55 00000] 0915z S9+10	JO MP	THU THU
14373kHz0800z 0800z 0800z	07/08[352 807 6 65518 35286 28464 53239 50056 09175 807 6 00000] 0806z weak 14/08[352 807 6 65518 35286 28464 53239 50056 09175 807n 6 00000]0805z S9 28/08[352 916 7 73195 23689 55860 10952 45556 15660 12828 916 7 00000]0805z QSA5	MP, RNGB M8 MP	TUE TUE TUE

01/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000] Very strong, QRM	FR	WED
08/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000]1005z S9+10	M8	WED
15/08[729 55 56738 70951 76308 74860 20687 860 55 00000] 1005z fair	MP	WED
01/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000] Very strong, QRM	FR	WED
08/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000]1015z S9+10	M8	WED
15/08[729 55 56738 70951 76308 74860 20687 860 55 00000] 1015z fair	MP	WED
	08/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000]1005z S9+10 15/08[729 55 56738 70951 76308 74860 20687 860 55 00000] 1005z fair 01/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000] Very strong, QRM 08/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000]1015z S9+10	08/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000]1005z S9+10 M8 15/08[729 55 56738 70951 76308 74860 20687 860 55 00000] 1005z fair MP 01/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000] Very strong, QRM FR 08/08[729 801 5 67453 89673 13265 89645 09532 801 5 00000]1015z S9+10 M8

We end S06 et al with PoSW's log and analysis:

Saturday 1600 or 1605 UTC Schedule:-

7-July-12:- 1605 UTC, 6,983 kHz, "134 134 134 00000", weak signal, clear copy with receiver in USB mode to remove what sounded like a broadcast station on 6,980.

21-July-12:- 1605 UTC, 6,983 kHz, "134 134 134 00000", weak, signal.

4-Aug-12:- 1600 UTC, 8,157 kHz, "134 134 134 00000", strength S5 to S6.

11-Aug-12:- 1605 UTC, 6,983 kHz, "134 134 134 00000", weak signal.

18-Aug-12:- 1605 UTC, 6,983 kHz, "134 134 134 00000", S5.

25-Aug-12:- 1600 UTC, 8,157 kHz, "134 134 134 00000", S7.

Saturday 1930 or 1935 UTC Schedule:-

7-July-12:- 1930 UTC, 7,884 kHz, "843 843 843 00000", strength S6 to S7.

14-July-12:- 1935 UTC, 6,783 kHz, alternative start time on a lower frequency, "843 843 843 00000", weak but clear.

21-July-12:- 1930 UTC, 7,884 kHz, "843 843 00000", S5 to S6, the Hamburg WEFAX station on the LF side very strong this evening.

28-July-12:- 1935 UTC, 6,783 kHz, "843 843 843 00000", much stronger than in the past few Saturdays, peaking at S9+.

11-Aug-12:- 1930 UTC, 7,884 kHz, "843 843 00000", signal varying from S5 to S9, the WEFAX on the LF side S9+ as usual.

18-Aug-12:- 1935 UTC, 6,783 kHz, "843 843 800000", S8 to S9. Strong "XJT" on HF side, not noticed before.

First + Third Saturdays in the Month 1900 + 2000 UTC Schedule:-

7-July-12:- 1900 UTC, 7,843 kHz, "416 416 406 00000". Heard on 7,847 rather than 7,843 in May and June.

2000 UTC, 6,916 kHz, second sending, weak signal.

21-July-12:- 1900 UTC, 7,847 kHz - back to 7,847 - "416 416 416 00000", strength S6.

2000 UTC, 6,916 kHz, second sending, weak signal.

18-Aug-12:- 1900 UTC, 7,847 kHz, "416 416 416 00000", strong signal.

2000 UTC, 6,916 kHz, second sending, peaking S9 with deep QSB.

Monday + Thursday 1900 or 1905 UTC Schedule:-

28-June-12, Thursday:- 1900 UTC, 7,982 kHz, "349 349 349 00000", S9+ signal.

2-July-12, Monday:- 1900 UTC, 7,982 kHz, "349 349 349 00000", S9+.

5-July-12, Thursday:- 1905 UTC, $6,984 \, \mathrm{kHz}, \,\, ``349 \,\, 349 \,\,\, 349 \,\,\, 00000", \,\, \mathrm{S9+}.$

12-July-12, Thursday:- 1900 UTC, 7,982 kHz, "349 349 349 00000".

19-July-12, Thursday:- 1905 UTC, 6,984 kHz, "349 349 349 00000", S9 with deep QSB.

30-July-12, Monday:- 1905 UTC, 6,984 kHz, "349 349 349 00000", S9 with QSB.

2-Aug-12, Thursday:- 1905 UTC, 6,984 kHz, "349 349 349 00000", S9+.

9-Aug-12, Thursday:- 1900 UTC, 7,982 kHz, "349 349 349 00000", S9+.

13-Aug-12, Monday:- 1905 UTC and a bit, 6,984 kHz, some out of character behaviour this evening. For a start strong carrier was up on 6,984 just after 1900z - unusual for this schedule, unlike some S06's this one doesn't usually advertise its presence beforehand. Carrier had scratching noises and went off around 1905 UTC. Came up approx. 1905 and 50 seconds UTC with, "349 349 349 00000". S9+.

 $16\text{-Aug-}12, Thursday:-\ 1900\ UTC,\ 7,982\ kHz,\ "349\ 349\ 349\ 00000".$

20-Aug-12, Monday:- 1905 UTC, 6,984 kHz, "349 349 349 00000", S9+. Doesn't change much! Looking back through the log the last "full message" transmission from this schedule appears to be in May last year.

Second + Fourth Mondays in the Month 1815 + 1915 UTC Schedule:-

9-July-12:- unable to find the first sending, i.e. 1815 UTC sending despite a careful search.

Frequencies for this schedule in June were $15,910 + 13,585 \, \text{kHz}$ and would be expected to move lower in frequency now we are past the summer solstice. The second sending found but only just!:-

1921 UTC, 13,505 kHz, a "full message" S06 OM in progress, very weak signal, only just detectable, certainly unreadable.

Something very strange going on in the world of short wave propagation this evening; while tuning around in a fruitless search for S06 pre-transmission warm-up just after 1900 UTC, I logged US broadcast station WWCR on 12,160 with an S9+ signal, by far the strongest from this one for some time - a commercial for a water purifier followed by the "Alex Jones" show.

 $10\text{-July-}12\text{, Tuesday:-}\ 1915\ UTC,\ 13,505\ kHz,\ \text{``next day repeat''}\ of\ yesterday's\ full\ message.$

Call "376" DK/GC "280 280 139 139". Much, much stronger than yesterday, S6 to S7.

And WWCR which was such a strong signal just twenty-four hours earlier was barely audible.

And still unable to find the first sending at 1815z.

23-July-12:- 1815 UTC, 15,850 kHz - the elusive first sending! "376 376 376 00000".

Don't know why I couldn't find it earlier in the month, was S9+, very strong this evening.

Over-riding a weak broadcast station inside the 19 metre band. Pre warm – up carrier with tone found 1802 UTC with a single spoken Russian "376". Carrier then went QRT, didn't notice it come back up again until start – up on the quarter hour.

1915 UTC, 13,505 kHz, second sending, also S9+.

13-Aug-12:- 1815 UTC, 15,805 kHz, "260 260 260 00000". On same frequency as an "XJT"

No problem to find, carrier with tone noted just before 1805z with a single "260" shortly afterwards.

1915 UTC, 13,380 kHz, second sending, strength S7.

S11a[III] July/August

5815kHz 1020z	25/08 [221/00] 1023z V.weak	Hans	SAT
8530kHz 0915z	13/07 [484/00]	RNGB	FRI
0915z	20/07 [484/00] Konec 0918z S2	Malc	FRI
0915z	24/07 [480/37 46805 53397 69468 25069 50113]	RNGB	TUE
0915z	07/08 [484/00]	RNGB	TUE
0915z	24/08 [486/32 Vnimanie 98618 95092 05120 2176668219]	Ary	FRI
0915z	28/08 [484/00] Fair	RNGB	TUE
11581kHz 1020z	03/07 [426/00] 1023z Fair QRN4 QSB4	Spectre	TUE
1020z	10/07 [426/00]	RNGB, Spectre	TUE
1020z	13/07 [426/00] Konec 1023z S1	Malc	FRI
1020z	17/07 [426/34] Too weak to copy	RNGB	TUE
1020z	24/07 [426/00]	RNGB	TUE
1020z 1020z	27/07 [426/00]	RNGB	FRI
10202	27/07 [420/00]	KNOD	TKI
16530kHz 1015z	02/07 [475/00] Konec 1018z S3	Malc	MON
1015z	16/07 [475/00]	RNGB	MON
1015z	19/07 [475/00]	RNGB	THU
1015z	23/07 [475/00] Konec 1018z S5	Malc	MON
1015z	02/08 [475/00]	RNGB	THU
1015z	09/08 [475/00] 1018z scarcely perceptible QRM1 QSB2	Marco	THU
1015z	13/08 [475/00] Konec 1018z	Malc	MON
1015z	16/08 [475/00]	RNGB	THU
1015z	20/08 [475/00] Konec 1018z S1	Malc	MON
1015z	23/08 [475/00]1018z S6-7 QSB2	Marco	THU
<u>S21</u> [XIV] <u>July:</u>			
4973kHz1742z	24/07[973 468 3? 40733 74582to weak to copy]S1	M8	TUE
5373kHz1742z	24/07[973 too weak to copy]	M8	TUE
August:			
5373kHz1742z	09/08[973 702 702 31 31]	GD, M8	THU
<u>S28</u> <u>July:</u>			
4665kHz2035z	01/07 [Harmonic] Weak QRN3 QSB3	Spectre	SUN
4705kHz2036z	01/07 [Harmonic] Very Weak QRN3 QSB4	Spectre	SUN
V02a [XVIII] July:			
4028kHz0227z	06/07 barely audible due to poor modulation	Westt1us, Ggs	FRI
4035kHz0400z	30/07 qrn3 end 0442z	Ggs	MON
4038kHz0400z	23/07 qrn5 (in progress) Poor Condx	Ggs	MON
5417kHz0200z	06/07 QRN3-4 (in progress)	Ggs	FRI

5762kHz0200z 0200z 2200z 0200z	07/07 Fair 14/07[35351 18581 31316] QRM5 end 0215z?? 21/07 qrm5 end ukn 28/07		Sage Ggs Ggs Ggs	SAT SAT SAT SAT
5898kHz0800z 0830z 0800z 0822z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z	02/07[A62451 74782 87111 LG 02841] 06/07 QRN1 end 0844z 12/07[A 05341 18661 22002 LG25234] -weak signal- 16/07[????? ????? 85801 LG 44830] -started late- 19/07[A 14372 27701 31131 LG weak signal] 20/07 -signal very weak to copy- 22/07[A 72232 85551 07881 LG 67186] 23/07[A 68761 80401 03822 LG ?????] weak signal at end 24/07[A 200?? 32661 45102 LG 2260?] -weak signal- 27/07[A 30551 43082 56311 LG 05308] -weak signal- 28/07[A 35582 48021 52342 LG ?????] -weak signal- 29/07[A 21032 34352 57681 LG 84680] -weak signal- 30/07[A 24711 37132 41461 LG 077?4] weak signal- 31/07[A 43571 55321 77642 LG 58056]		DanAr Ggs DanAr	MON FRI THU MON THU FRI SUN MON TUE FRI SAT SUN MON TUE
6768kHz0100z 0100z 0100z	07/07 QRN4 14/07[38862 71601 04366] 0141z 28/07 qrn2 end 0142z		Ggs Ggs Ggs	SAT SAT SAT
7240kHz1000z	18/07[2155- 1-180]QSA0 QSB3 (right in the noise floor)	НТ	WED
11530kHz2333z	25/07 5f/SS/YL	Unconfirmed	P	WED
12180kHz1900z	31/07[11132, 24551, 37882] QSA 1 QSB5		НТ	TUE
13380kHz2000z	31/07[11132, 24551, 37882] QSA 3 QSB5		НТ	TUE
August:				
4028kHz0133z 0100z	03/08[i/p] weak 17/08 end ukn Covered by static.		GN Ggs	FRI FRI
4035kHz0425z	06/08[i/p] fair		GN	MON
5417kHz0200z	03/08 grm5 end 0241z		Ggs	FRI
5762kHz0200z 0200z	04/08 qrn5 end 0241z 11/08 end 0241z		Ggs Ggs	SAT SAT
5853kHz0704z	17/08		RNGB	FRI
5883kHz0700z 0700z 0700z 0700z 0700z 0700z	04/08[A00252 12082 33622] fair 05/08 end unk 19/08[A 64201 75831 88262 LG 15180] -intro x2 then msg- 20/08[A 40721 53252 66572 LG 71801] 27/08[A 66111 70542 83861] Fair QSB3		GN,Ggs Ggs DanAr DanAr Hans	SAT SUN SUN MON MON
5898kHz0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z 0800z	02/08[A 52472 65702 78231 LG 53878] 04/08[A ????? ????? 33622 LG 55811] -weak signal & local qrm 05/08[A 24622 35462 48781 LG 63684] 09/08[A 71661 84102 06422 LG 91134] 10/08[A 78081 82322 15742 LG ?????] 11/08 qrn4 end 0841z 12/08[A 61511 72241 05571 LG ?????] 16/08[A 52342 65662 78101 LG 54262] 17/08[A 13282 36522 40841 LG 61067] 18/08[A 28241 40871 53302 LG 50383] Señorita Habana sent 11 20/08[A 40721 53252 66572 LG 78288] 25/08[A 72811 85242 08562 LG ?7761]		DanAr DanAr, Ggs DanAr DanAr DanAr Ggs DanAr DanAr DanAr DanAr DanAr DanAr DanAr	THU SAT SUN THU FRI SAT SUN THU FRI SAT HU FRI SAT MON SAT
6768kHz0100z	04/08[A51842 73572 84312] weak		GN, Ggs	SAT
6855kHz0322z 0300z	06/08[i/p] fair 27/08[18101 (33566) 34853 0341z unsure 2nd grp		GN Ggs	MON MON
9040kHz0900z	01/08 qrn3 end ukn		Ggs	WED
9063kHz0938z 0930z	01/08[carrier only on old freq.] QSA4 08/08 carrier QSA5		HT HT	WED WED
9240kHz1003z 0930z 1000z 1000z 1000z	01/08[late start no call up] QSA5 08/08[11111111111] QSA5 08/08[08512 11831 34362] QSA5 15/08[A70352 83772 06111?] -weak and low audio- 22/08[60741, 73172, 86501] QSA5 QRN1		HT HT HT Ggs, DanAr HT	WED WED WED WED WED

12180kHz1900z 1900z	07/08[52071 65412 78731] QSA1 QSB4 28/08 end 1941z	HT Ggs	TUE TUE
13380kHz2000z 2000z 2000z	07/08[52071 65412 78731] QSA1 QSB4 14/08 end unk 28/08 end 2041z	HT Ggs Ggs	TUE TUE TUE
V13 July:			
11430kHz1200z	12/07 music intro YL with msg -weak signal and carrier frequency drift-	DanAr	THU
11430kHz1200z	13/07 music intro YL with msg -weak signal and carrier frequency drift at 1147z	DanAr	FRI
11430kHz1200z	18/07 music intro YL with msg -weak signal-	DanAr	WED
11430kHz1203z	$22/\!07$ short intro music and YL with msg -started late without time to warm up transmitter , carrier frequency drift over music and msg	DanAr	SUN
11430kHz1200z	26/07 music intro YL with msg -weak signal-	DanAr	THU
11430kHz1203z	27/07 music intro YL with msg -started late without warm up TX , weak signal-	DanAr	FRI
11430kHz1200z	28/07 music intro YL with msg -weak signal-	DanAr	SAT
11430kHz1200z	29/07 music intro YL with msg -weak signal-	DanAr	SUN
August:			
11430kHz1200z	17/08 music intro YL with msg. FRI -weak signal-	DanAr	FRI
11430kHz1200z	27/08 - Flute opening and messsage, strong on GT "Hong Kong DX"	Hans	MON

<u>V16</u>

An interesting input from MaleAnon, who writes:

I have come accros your site and have heard the recording at http://www.youtube.com/watch?v=Gfiv_v3NzNw

I happen to know a little bit of Chinese and managed to get some information from it.

The first message is the next (I do not understand everything, I only wrote what I'm sure about) 'bu xie' at the end of each message means 'no thanks'

at the end of a series, the lady says 'zai jian', meaning 'see you later'

The first message

san yao liu guan liang ba hu jiao bu xie

3 1 6 2 8 calling no thanks

Second message

san guan wu yao san san hu jiao bu xie

3 5 1 3 3 calling no thanks

Thanks MaleAnon2

<u>V21</u> [O]

Babbler Logs May through July

5637kHz 1300z 1/5 SS/OM Too weak to copy

6529kHz 1258z 26/5 SS/OM Counting repeatedly to 40 pausing on 10,20 and 30 each time 40 40 40 40 40 then too weak to copy TX ended at 1307z

6529kHz 1300z 6/6 SS/OM too weak to copy for 11 minutes then clearer with SS/OM counting to 20 nine times pausing at 10 each time. Then barely audible at 13 minutes. TX ends after approximately 20 minutes.

6529kHz 1305z 3/7 SS/OM counting caught counting from 20 to 40 then 1 to 40 then too weak to copy.

6529kHz 1305z 6/7 SS/OM counting very weak

6529kHz 1305z 7/7 SS/OM started at 1305z and ended 1315z counting to 30 then too weak to copy

 $Tnx\ Male Anon$

Polytones:

 $The \ `new' \ schedule \ 0600/0620/0640z \ \ discovered \ by \ RNGB \ occurs \ on \ \ Wednesday \ and \ Saturday. \ It \ will \ appear \ in \ our \ chart \ as \ XPA \ c$

XPA2 July:

Sun/Tue				
14538kHz2100z 13538kHz2120z 12138kHz2140z	01/07[07091 00001 00000 10140] Very strong 01/07[07091 00001 00000 10140] Strong 01/07[07091 00001 00000 10140] Strong	(2m11s) (2m11s) (2m11s)	PLdn PLdn PLdn	SUN SUN SUN
14538kHz2100z 13538kHz2120z 12138kHz2140z	03/07[07496 00001 00000 10140] Very strong 03/07[07496 00001 00000 10140] Strong 03/07[07496 00001 00000 10140] Strong	(2m11s) (2m11s) (2m11s)	BR,PLdn BR,PLdn BR,PLdn	TUE TUE TUE
14538kHz2100z 13538kHz2120z 12138kHz2140z	08/07[00803 00049 86423 31775] Very strong 08/07[00803 00049 86423 31775] Very strong 08/07[00803 00049 86423 31775] Very strong	(2m48s) (2m48s) (2m48s)	BR PLdn BR,PLdn BR,PLdn	SUN SUN SUN
14538kHz2100z 13538kHz2120z 12138kHz2140z	10/07[00803 00049 86423 31775] Very strong 10/07[00803 00049 86423 31775] Very strong 10/07[00803 00049 86423 31775] Very strong	(2m48s) (2m48s) (2m48s)	BR PLdn BR PLdn BR PLdn	TUE TUE TUE
All freqs 15/07	NRH			
All freqs 18/07	NRH			
14538kHz2100z 13538kHz2120z 12138kHz2140z	22/07[00305 00083 53996 13661] Very strong 22/07[00305 00083 53996 13661] Very strong 22/07[00305 00083 53996 13661] Fair	(3m15s) (3m15s) (3m15s)	PLdn PLdn PLdn	SUN SUN SUN
14538kHz2100z 13538kHz2120z 12138kHz2140z	24/07[00305 00083 53996 13661] Very strong 24/07[00305 00083 53996 13661] Very strong 24/07[00305 00083 53996 13661] Fair	(3m15s) (3m15s) (3m15s)	PLdn, RNGB PLdn, RNGB PLdn, RNGB	TUE TUE TUE
14538kHz2100z 13538kHz2120z 12138kHz2140z	29/07[05901 00001 00000 10140] Very strong 29/07[05901 00001 00000 10140] Very strong 29/07[05901 00001 00000 10140] Very strong	(2m11s) (2m11s) (2m11s)	PLdn PLdn PLdn	SUN SUN SUN
14538kHz2100z 13538kHz2120z 12138kHz2140z	31/07[06532 00001 00000 10140] Very strong 31/07[06532 00001 00000 10140] Very strong 31/07[06532 00001 00000 10140] Very strong	(2m11s) (2m11s) (2m11s)	PLdn PLdn PLdn	TUE TUE TUE
Mon				
10214kHz0510z	16/07[ended with 30279 55075 (missed start)]		RNGB	MON
9234kHz0520z	16/07[ended with 30279 55075 (missed start)]		RNGB	MON
9234kHz0520z				
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z	16/07[ended with 30279 55075 (missed start)] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115]	(3m15s) (3m15s) (3m15s)	RNGB RNGB RNGB	MON THU THU
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13886kHz2110z	16/07[ended with 30279 55075 (missed start)] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong 23/07[01083 00081 12187 64664] Very strong	(3m15s)	RNGB RNGB RNGB RNGB PLdn PLdn	THU THU THU MON MON
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z	16/07[ended with 30279 55075 (missed start)] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong	(3m15s)	RNGB RNGB RNGB PLdn PLdn PLdn BR	THU THU THU MON MON THU
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z	16/07[ended with 30279 55075 (missed start)] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong 20/07 Poor 20/07 Poor 20/07 Poor 26/07[06314 00100 21747 14551] Very strong 26/07[06314 00100 21747 14551] Very strong	(3m15s) (3m15s) (3m28s) (3m28s)	RNGB RNGB RNGB PLdn PLdn PLdn PLdn PLdn	MON THU THU MON MON THU THU THU
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13496kHz2110z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13886kHz2110z 13896kHz2110z 13496kHz2120z	16/07[ended with 30279 55075 (missed start)] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong 20/07 Poor 20/07 Poor 20/07 Poor 26/07[06314 00100 21747 14551] Very strong 26/07[06314 00100 21747 14551] Very strong	(3m15s) (3m15s) (3m28s) (3m28s)	RNGB RNGB RNGB PLdn PLdn PLdn PLdn PLdn	MON THU THU MON MON THU THU THU
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z Tue 8098kHz1800z 6829kHz1810z	12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong 20/07 Poor 20/07 Poor 26/07[06314 00100 21747 14551] Very strong	(3m15s) (3m15s) (3m28s) (3m28s)	RNGB RNGB RNGB RNGB PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	MON THU THU MON MON THU THU THU THU THU THU THU THU
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z Tue 8098kHz1800z 6829kHz1810z 5757kHz1820z	12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong 20/07 Poor 20/07 Poor 26/07[06314 00100 21747 14551] Very strong	(3m15s) (3m15s) (3m28s) (3m28s)	RNGB RNGB RNGB RNGB PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	MON THU THU MON MON THU THU THU THU THU THU THU THU
9234kHz0520z Mon/Thu 14387kHz2100z 13886kHz2110z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z 14387kHz2100z 13496kHz2120z Tue 8098kHz1800z 6829kHz1810z 5757kHz1820z Tue/Fri	16/07[ended with 30279 55075 (missed start)] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 12/07[06284 00127 5172221115] 23/07[01083 00081 12187 64664] Very strong 23/07[01083 00081 12187 64664] Very strong 23/07[01083 00081 12187 64664] Very strong 20/07 Poor 20/07 Poor 20/07 Poor 26/07[06314 00100 21747 14551] Very strong 10/07[05322?? 00083 1392340136 10/07] 10/07[05322?? 00083 1392340136 10/07] 10/07[05322?? 00083 1392340136 10/07]	(3m15s) (3m15s) (3m28s) (3m28s)	RNGB RNGB RNGB RNGB PLdn PLdn PLdn PLdn PLdn PLdn RNGB RNGB RNGB RNGB RNGB	MON THU THU MON MON THU THU THU THU THU THU THU THU

Tue/Fri continued:				
14777kHz2200z	24/07[05452 00085 52359 54n27]Fair	(3m18s)	PLdn	TUE
14777kHz2200z	27/07[07517 00136 94809 73762] Strong	(3m55s)	PLdn	FRI
14777kHz2200z	31/07[03335 00087 94619] Fair, last group missed out		PLdn	TUE
14541kHz2000z 13404kHz2010z 11046kHz2020z	13/07[07908 00136 8902326774] 13/07[07908 00136 8902326774] 13/07[07908 00136 8902326774]		RNGB RNGB RNGB	FRI FRI FRI
14541kHz2000z 13404kHz2010z 11046kHz2020z	20/07[01045 00081 43268 57254] Fair 20/07[01045 00081 43268 57254] Fair 20/07[01045 00081 43268 57254] Weak	(3m14s) (3m14s) (3m14s)	PLdn PLdn PLdn	FRI FRI FRI
14541kHz2000z 13404kHz2010z 11046kHz2020z	24/07[05837 00089 28273 01632]Very strong 24/07[05837 00089 28273 01632]Strong 24/07[05837 00089 28273 01632]Fair	(3m16s) (3m16s) (3m16s)	PLdn, RNGB PLdn, RNGB PLdn, RNGB	TUE TUE TUE
14541kHz2000z 13404kHz2010z 11046kHz2020z	27/07[07540 00092 03456 50062] Very strong 27/07[07540 00092 03456 50062] Very strong 27/07[07540 00092 03456 50062] Very strong	(3m22s) (3m22s) (3m22s)	PLdn PLdn PLdn	FRI FRI FRI
14541kHz2000z 13404kHz2010z 11046kHz2020z	31/07[05423 00107 98707 04027] Very strong 31/07[05423 00107 98707 04027] Very strong 31/07[05423 00107 98707 04027] Very strong	(3m33s) (3m33s) (3m33s)	PLdn PLdn PLdn	TUE TUE TUE
Fri				
13884kHz2120z 12217kHz2140z	20/07 Weak, unable to process 20/07 Weak, unable to process	(3m36s) (3m36s)	PLdn PLdn	FRI FRI
Sat				
15967kHz2100z 14869kHz2120z 12217kHz2140z	28/07[00763 00059 13923 11532] Strong 28/07[00763 00059 13923 11532] Strong 28/07[00763 00059 13923 11532] Strong		RNGB RNGB RNGB	SAT SAT SAT
August:				
August: Sun/Tue				
	05/08[00460 00071 19781 76205] Very strong 05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2	(3m05s) (3m05s) (3m05s)	PLdn	SUN SUN SUN
Sun/Tue 14738kHz2000z 13438kHz2000z	05/08[00460 00071 19781 76205] Strong, QSB2	(3m05s)	PLdn	SUN
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair	(3m05s) (3m05s) (3m05s) (3m05s)	PLdn PLdn PLdn PLdn	SUN SUN TUE TUE
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2000z 14738kHz2020z 14738kHz2000z 13438kHz2020z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong	(3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (2m11s) (2m11s)	PLdn PLdn PLdn PLdn PLdn PLdn PLdn	SUN SUN TUE TUE TUE SUN SUN
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 14/08[05624 00001 00000 10140] Strong 14/08[05624 00001 00000 10140] Strong 14/08[05624 00001 00000 10140] Strong	(3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (2m11s) (2m11s) (2m11s)	PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	SUN SUN TUE TUE TUE SUN SUN SUN TUE TUE
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2000z 13438kHz2020z 12138kHz2040z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 12/08[05624 00001 00000 10140] Very strong 14/08[05624 00001 00000 10140] Strong 19/08[00427 00069 72991 53231] Fair 19/08[00427 00069 72991 53231] Fair, Break in intro. 1s	(3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s)	PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	SUN SUN TUE TUE TUE SUN SUN TUE TUE SUN SUN
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2000z 14738kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2020z 12138kHz2040z 14738kHz2040z 14738kHz2000z 13438kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z 14738kHz2040z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Strong 14/08[05624 00001 00000 10140] Strong 19/08[00427 00069 72991 53231] Fair 19/08[00427 00069 72991 53231] Fair, Break in intro. 1s 19/08[00427 00069 72991 53231] Weak, local QRM2 26/08[00756 00043 95948 44724] Very strong 26/08[00756 00043 95948 44724] Very strong	(3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s) (2m13s) (3m03s) (3m03s) (3m03s) (3m03s)	PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	SUN SUN TUE TUE SUN
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2000z 13438kHz2040z 14738kHz2000z 13438kHz2040z 14738kHz2000z 13438kHz2040z 14738kHz2000z 13438kHz2040z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Strong 14/08[05624 00001 00000 10140] Strong 19/08[00427 00069 72991 53231] Fair 19/08[00427 00069 72991 53231] Fair, Break in intro. 1s 19/08[00427 00069 72991 53231] Weak, local QRM2 26/08[00756 00043 95948 44724] Very strong 26/08[00756 00043 95948 44724] Very strong 28/08[00756 00043 95948 44724] Very strong 28/08[00756 00043 95948 44724] Very strong 28/08[00756 00043 95948 44724] Very strong	(3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s) (2m14s) (2m14s) (2m14s) (2m14s) (2m14s) (2m14s) (2m146s) (2m46s) (2m46s) (2m46s)	PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	SUN SUN TUE TUE SUN
Sun/Tue 14738kHz2000z 13438kHz2000z 12138kHz2000z 14738kHz2000z 13438kHz2020z 12138kHz2040z 14738kHz2040z 14738kHz2000z 13438kHz2020z 12138kHz2040z	05/08[00460 00071 19781 76205] Strong, QSB2 05/08[00460 00071 19781 76205] Strong, QSB2 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 07/08[00460 00071 19781 76205] Fair 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Very strong 12/08[05624 00001 00000 10140] Strong 14/08[05624 00001 00000 10140] Strong 19/08[00427 00069 72991 53231] Fair 19/08[00427 00069 72991 53231] Fair, Break in intro. 1s 19/08[00427 00069 72991 53231] Weak, local QRM2 26/08[00756 00043 95948 44724] Very strong 26/08[00756 00043 95948 44724] Very strong 28/08[00756 00043 95948 44724] Very strong 28/08[00756 00043 95948 44724] Very strong 28/08[00756 00043 95948 44724] Very strong	(3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (3m05s) (2m11s) (2m11s) (2m11s) (2m11s) (2m11s) (2m14s) (2m14s) (2m14s) (2m14s) (2m14s) (2m14s) (2m146s) (2m46s) (2m46s) (2m46s)	PLdn PLdn PLdn PLdn PLdn PLdn PLdn PLdn	SUN SUN TUE TUE SUN

Mon	

14739kHz1700z	20/08[08212 00149 40861 56247] strong signal but with deep fades 17:00 to 17:04 20/08 17:10 to 17:14 (much weaker signal) 20/08 17:20 to 17:24 (again to weak to decode)	IW	MON	
14429kHz1710z		IW	MON	
13887kHz1720z		IW	MON	
Tue				
16314kHz1900z	20/08[03452 00001 00000 10140]	RNGB	TUE	
15814kHz1920z	20/08[03452 00001 00000 10140]	RNGB	TUE	
14514kHz1940z	20/08[03452 00001 00000 10140]	RNGB	TUE	
Wed				
16038kHz1903z	15/08 No values	GN	WED	
8793kHz2020z	15/08[???]Weak /w noise [Suspect freq]	DLBB	WED	
13551kHz2000z	15/08[07702 00076 5270855350]	RNGB	WED	
9126kHz2020z	15/08[07702 00076 5270855350]	RNGB	WED	
13559kHz2100z	15/08[07702 00076 5270855350]	RNGB	WED	
10917kHz2110z	15/08[07702 00076 5270855350]	RNGB	WED	
9302kHz2120z	15/08[07702 00076 5270855350]	RNGB	WED	
Fri				
9399kHz0500z	17/08[02649 00107 42046 93295] 0503z Strong	Hans	FRI	
7714kHz0522z	17/08 In prog	Hans	FRI	
14739kHz1703z	03/08 Too weak to process	IW	FRI	
14429kHz1710z	03/08 07573 00143 10123 07672	IW	FRI	
16167kHz1900z	17/08[00910 00091 3401557732] Strong	RNGB	FRI	
14663kHz1920z	17/08[00910 00091 3401557732] Strong	RNGB	FRI	
13923kHz1940z	17/08[00910 00091 3401557732] Strong	RNGB	FRI	

Digital, Incursions and Unexplained Signals

Digital, Incursions and Unexplained Signals

Despite being hampered by intermittently poor HF conditions I have spent as much time as possible over the last couple of months hunting for FSK200/1000 transmissions and then trying to interpret the results. I will explain my findings later but first a FSK200/500 update.

To recap FSK200/500 is a data mode believed to be used by a Russian governmental organisation it transmits data using FSK (Frequency Shift Keying) with a 500 Hz shift at a speed of 200 baud. Its effectively a high speed RTTY transmission as data is sent with 1.5 stop bits and encoded using the ITA2 alphabet. It operates on regular schedules with transmissions that last 7 minutes but which change frequency every month. Messages are sent three times at H + 00 minutes then H + 10 minutes and finally H + 20 minutes. I have been keeping a close eye on the known Thursday 19:00/10/20 and Saturday 12:00/10/20 schedules which used the following frequencies during July and August ..

	Thursday 19:00	Thursday 19:10	Thursday 19:20	Saturday 12:00	Saturday 12:10	Saturday 12:20
July	11123 KHz	9117 KHz	6828 KHz	16329 KHz	14641 KHz	Unknown
August	10828 KHz	8144 KHz	5803 KHz	17482 KHz	15967 KHz	Unknown

I have managed to log both of these schedules for the last two months and on every occasion the message sent was the usual null message repeated for seven minutes.

 $00000+++++++++162)5761 \ 00000+++++++++162)5761 \ 00000+++++++++162)5761 \ 00000+++++++++162)5761$

So I thought it was going to be a normal month for FSK200/500. But while taking a holiday on Monday 30th July 2012 I came across a FSK200/500 at 10:15 on 13596 KHz. I started recording it to a .WAV file and expected it to end at 10:17 but instead it continued until 10:21. I hunted around for a 10:20 transmission but was unable to find one. When I decoded the WAV file later using Rivet I discovered an actual message was being sent. The recording was sadly noisy and so wasn't a brilliant decode but took the form ...

467227600822617102=87137 429993887399289100=83338 878849479730926101=85739

As I saw previously in the only other FSK200/500 message I have decoded the last two digits on each line are a line number which increments. Once again however I missed the start of the transmission and so missed the message header which is very annoying. This transmission raises several questions though. Is this a schedule I haven't come across before which over ran its usual time slot due to the length of the message being sent? Or was this an unscheduled special message? Sadly I'm usually at work on weekday mornings and as this was the last Monday in the month I knew that if this was a schedule the frequency would be changing anyway on the following Monday which was in August so couldn't automatically record it. So much research needs to be done before we come close to understanding FSK200/500.

Now lets look at what appears to be FSK200/500s sister station FSK200/1000. Again this is believed to be used by a Russian governmental organisation. The data transmissions using this mode last 7 minutes and are on schedules at H+00, H+10, H+20 or H+30, H+40 and H+50. Again FSK (Frequency Shift Keying) is used but with a 1000 Hz shift and the data sent at 20 baud. However characters aren't sent using the ITA2 alphabet but using an unknown system. The data is sent in blocks of 288 bits with each block starting with the bits ..

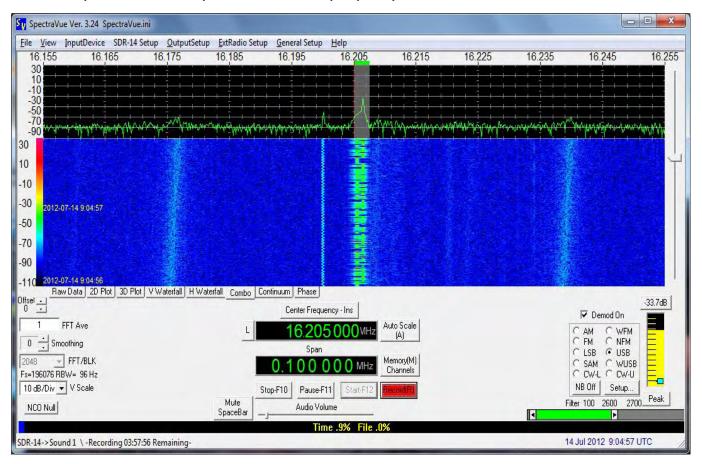
100000101110110101001111100011001

which is 0x82ed4f19 in hexadecimal. It makes an ideal synchronization sequence as there are an equal number of 1's and 0's in it. Following the 32 bit synchronization sequence there are 256 bits of actual message in each block. Now I can't decode the messages fully but using Rivet you can now tell how large the message is. Take the following section of a message which was sent at 21:00 on 21st August 2012 ...

Notice how the same message is being repeated twice above with the block that starts with the synchronization sequence but consists of just 0xff indicates the end of a message. You can see that including the end of message block the message being sent consists of 4 blocks. So although we can't yet decode the messages we can tell how long a message is and if a message is a repeat one. For the last few months I have been hunting for FSK200/1000 transmissions and saving details of all the ones I have found. Initially what I had was confusing since for example sometimes there appeared to be transmissions on Saturday and Sunday mornings but not always with further confusion being added as some transmissions were missing due to poor HF conditions. It was only when I entered the logs I had into a Spreadsheet (Google docs online excellent and free) that it started to make sense and from this I have identified four FSK200/1000 "circuits" which I understand ..

Circuit	Day	Time	When	Comments
A	Saturday + Sunday	09:00 + 09:10 +09:20	Alternate Weeks	Sends only one long (19 or 26 block) message all month.
В	Sunday	15:30 + 15:40 + 15:50	Weekly	Only sends 4 block messages which change weekly
С	Sunday	11:00 + 11:10 + 11:20	Alternate Weeks	Variable message lengths.
D	Tuesday	17:00 + 17:10 + 17::20	Weekly	Only sends 4 block messages which change weekly.

Note that circuits A,B and D appear to be aimed at Western Europe with signal strengths usually high while circuit C is always a poor signal and I would guess is aimed at somewhere else. In addition we appear have short lived circuits. For example on Monday 18th June at 17:00 I logged a FSK200/1000 transmission sending a 53 block message (the longest message I have seen so far) but despite listening every following Monday at 17:00 I have yet to hear another FSK200/1000 transmission. Likewise on Wednesday 18th July at 17:30 I logged a 8 block message being sent but have yet to hear another message being sent on a Wednesday at this time. I know that there are also transmissions sent on certain weekdays at 12:00/10/20 and 13:00/10/20 but being at work then am unable to find and log these transmissions. If you can monitor on weekdays at these times I would really like your help.



The screenshot above shows a very strong FSK200/1000 circuit A transmission received in Northern England using a SDR-14 software radio with random long wire and home made ATU. To left of the FSK200/1000 transmission and so on a slightly lower frequency is a Russian naval CIS36-50 transmission in idling mode.

Initially it was thought that these transmissions may be related to Family 1b but after passing on my findings to several senior members of the group it has been speculated that their characteristics (such as the short lived schedules) make them more likely members of the same family of transmissions as XPA2. The owner of these transmissions remains unknown but my feeling is that these aren't standard diplomatic messages. X06 and CROWD36 transmissions which are widely believed to be diplomatic in nature rarely transmit at weekends. FSK200/1000 however seems to specialise in "out of office hours" transmissions which suggests to me that they are for a different type of recipient. So as with the previous mode lots more research is needed especially with the contents of FSK200/1000 messages.

In between hunting for FSK200/500 and FSK200/1000 transmissions I am still looking for CROWD36 transmissions and received a log from regular monitor Spectre ..

Crowd 36 14656kHz 11/07 [Data I.P.] 1202z Fair QRN2 QSB2 Spectre WED

If you wish to try FSK200/500 or FSK200/1000 decoding yourself the decoder "Rivet" can be downloaded for free from ..

https://github.com/IanWraith/Rivet/downloads

If you have any questions about how to use it or need any help getting it working please email me via the group and I will do my best to help.

In addition there is an online spreadsheet showing the latest FSK200/500 and FSK200/1000 frequencies and schedule information online here ..

http://goo.gl/D3Ue5

Items of Interest in the Media:-

Well, nothing untoward happened - at the London Olympics, that is! No terrorist attack, no

"Mumbai style" shootings, no occasion for Tommy Atkins to light the blue touch paper of any of the missiles installed on the top of apartment blocks, no need for the Jolly Jack Tars on HMS Ocean stationed on the Thames to man the guns, no requirement for fighter jets at Northolt to scramble and shoot down some slightly off course airliner with several hundred passengers and full tanks of aviation fuel on board, bringing it down in flames on a densely populated part of the nation's capital, no "dirty bomb" spewing radioactive material into the air. Glad about that last one, a prevailing south-south westerly wind of

say, ten to fifteen knots would bring the fall-out up to my part of the world within a few hours!

Even the public transport system worked without too many problems, the predicted chaos not much in evidence. So a win-win situation for the transport unions then, who because they thought their work load would be much, much larger for the duration of the games threatened to go on strike unless they were given generous financial compensation -

or bonus, which, of course, they duly received.

All in all, it sounded like another effort by the Department of Not Enough to Worry About and the National Guesswork Authority to keep us fearful and suspicious of each other. The nearest thing to an act of violence at the games was when one of the spectators

was reported to have thrown an empty plastic drinks bottle onto the track. Otherwise it was two weeks of the participants running, jumping and throwing things, desperate to win a medal which would lead to the prospect of financially rewarding sponsorship deals. I think

the best example of the original Olympic spirit was that of the young woman runner from Saudi Arabia who finished her race well towards the rear of the field but was cheered by the spectators because she represented an advancement for women in that country.

Not a great sports fan myself, and to be honest I didn't hear many people expressing much interest.

The opening ceremony of the games produced much comment. It was on TV in the very late evening UK time, no doubt to fit in with peak viewing hours in America. I think the general theme was to portray the history of this here United Kingdom from an agricultural, pastoral economy through the industrial and post-industrial phases until what it is now - on the verge of implosion, I would say! Much was made of the National Health Service, much maligned but to which us Brits owe a great deal - and of course, the privatisation

of the said organisation started by New Labour is proceeding at an even greater pace under the current administration. The belief of many who work for the NHS is that the ultimate aim of the LibLabCon party is to sell it off at a knock – down price to a consortium of American health insurance companies.

I saw a comment on the Daily Telegraph web site which was made by a reader with regard to an article about government dreaming up new laws and fines to extract even more money from car drivers and I thought it deserved a wider distribution since it expresses so well the State of the Nation:-

"To the outside world that reads this newspaper. Do not be misled by the supposed bonhomie of the Olympics. Britain today is a politically correct, over – spied on nation, unsure of its place in the world and bewildered at what is happening to it. Its people generally loathe all levels of authority be they politicians, local authorities or pontificating churchmen for the lies they continually feed us as they bleed us dry".

I think that's absolutely brilliant! [Ed I think it's totally true]!

Good stuff on BBC Radio:- I have just about given up on television these days, the digital "Free View" system which has now replaced the old analogue 625 line mode is a perfect example of the old saying that "more" does not always mean "better". Forty or fifty channels, depending on the time of day, and most of the time nothing worth watching.

Much of the programming is of American origin - nothing wrong with that in itself but the days when Uncle Sam sent us quality TV such as "Hill Street Blues", "Mash", and of course, "Top Cat" are long gone. Everything these days seems to be aimed at that all important, free – spending and easy to part from their money late teens and twenties demographic. The main use for the TV these days is as the display medium for the DVD player.

However, BBC radio has much to recommend it and several items have been noteworthy in recent weeks. First, Radio 4 did a half-hour programme called "Securing the Games" on 22-July - so, returning to the subject of the London Olympics. It included coverage of an exercise held in which the scenario was an terrorist attack on the Underground, a two day affair involving 2,500 people from the fire, police and ambulance services. Interviews with the various individuals in charge of various aspects of security - one interesting fact that emerged was that around 2,500 CCTV cameras were in use - Big Brother is watching you, then - covering the various games venues. One problem that had to be overcome was that of the private company which had been contracted to provide security guards and which then was unable to do so and so extra personnel from the Army had to be brought in to fill the gap.

The closing words of the programme were, "The hope will be that all this work, the missiles, the warships and the exercises like the one in the London Underground earlier this year will be for nothing and that the Olympics will be remembered for the sport."

And I guess that's exactly how it turned out.

BBC World Service moves from Bush House - The BBC World Service has gone through may changes in recent years. No doubt the end of the Cold War removed many of the reasons for its existence. A shift in the actual programme content took place in the 1990's when much of its output which had hitherto been targeted at ex-patriot Brits was dropped - programmes such as a daily press review of the London newspapers, a review of political and other magazines called "From the Weeklies", specialist music shows such as "Jazz for the Asking" and a classical music request show, even monthly astronomy programme, "Seeing Stars". There was even something for the Merchant Navy, called not unreasonably "The Merchant Navy Show" - all were dropped in the space of a short time. I think they decided to target a completely different audience, not UK nationals living overseas, and in particular the exploding populations of the Third World, countries where 80% of their inhabitants are under the age of 30 and whenever I listen to it now - it is available on the DAB system in the UK - it likely as not will be all about rap music and Africa, Africa, bloody Africa.

And now the World Service and the other foreign language services have moved from Bush House in The Strand, London and re-located to new premises in Broadcasting House.

BBC Radio 4 did a documentary on 15-July called "Goodbye to Bush House" which covered the history of the BBC's external services from that location which was most informative, covering the Cold War years, the revolution in Iran following the overthrow of the Shah, the 1982 conflict with Argentina over the Falklands and many other topics.

Classic communications receiver shown in newspaper;- the Metro newspaper of 29-June contained an article on the 75th anniversary of the UK's emergency phone "999" service.

Included in the short item was a photograph from long, long ago which showed two radio receivers mounted one above the other in a 19 inch rack instantly recognisable by those in the know as fine examples of the "HRO" - made by the National Company Inc. of Malden, Mass. This supposedly has to do with the fact that the police used Morse code to communicate, although I am not convinced that this particular photograph has anything at all to do with the subject. I remember an article in one or other of the radio magazines a few years ago on the early days of police radio communications in the UK and mentioned the fact that Morse code was used using frequencies in the 2 MHz band, which meant that after dark there would be interference from distant users on the same frequency.

The HRO first saw the light of day in 1935, I think, and I seem to call that this form of communication was being used several years before that. In the photograph as well as the two rack-mounted HROs there is an operator with an unrecognisable uniform with his hand on one of a group of three Morse keys. Also shown is a stack of the plug-in coil packs which are used to change bands on the HRO. It is not clear why these would need to be close at hand if the receiver was being used on just one or two closely spaced spot frequencies. I suspect the guy writing the article said to some office junior, "Nip down to the photo library and find something on Morse code radio communications in the old days". Still, always great to see pictures of old radio gear

"0 0 0" "P O S W"

With no jobs available for 'Gizza Job' Spectre has kindly itemised his holiday radio activities:

Monitoring on holiday.

This year I wished to go a step further from my previous years holiday, with a simple automated recording system for unattended monitoring. Using my Radio Shack DX-394 receiver which has a useful 5 individual timers, and I still use my Voice Activated Tape Recorder I had previously mentioned in earlier Enigma 2000 newsletters to record the audio from the DX-394. I know that tape based recording is considered old hat these days, but I still find the system works really well and at a low cost too. The tape recorder is powered by 2 double A rechargeable batteries, which are usually replaced with fresh batteries every other day. The tapes usually hold up to 50 minutes of audio per side, so that means I usually can monitor 5 different frequencies unattended with a maximum of 10 minutes of audio for each frequency monitored. This doesn't sound like a lot of audio to record for each frequency monitored, but most number station transmissions rarely transmit anything longer than 10 minutes.

For Example.

S06s will transmit for 6 minutes with a 7 group message.

E06 & G06 1/3 week schedules will transmit for 7 minutes with a 15 group message.

Most family 03 stations will send a standard 32 group message complete with repeat at the end, will usually last around about 10 minutes.

So I use this as a guide when I program the DX-394 receivers end times. I usually connect the DX-394 with an audio lead from the headphone jack to the microphone input on my Tape Recorder. This way no sound will come out of the receivers built in speaker when the receiver is automatically turned on. All that is required to do now is make sure to press Record on the Tape Recorder, and when the tape stops it is ready to start auto recording. Fully recharged batteries can last up to 2 days even if the Tape Recorder is left in standby mode.



Degen De-1103, DX-394 and VAS Tape Recorder.

I set up my DX-394 receiver in the bedroom with a 5 meter wire antenna taped to the ceiling, reception was slightly better than it usually is at my QTH.

Unfortunately the weather was fairly poor at times with lots of heavy rain and two large thunder storms. The weather did effect short wave reception most particularly during heavy rain fall with thick dark clouds.

Reception appeared to be at its best during the more finer days, with a reduction in interference and a slight rise in signal strengths. Most voice stations I tried for I received clearly enough to log, but I still didn't catch clear transmissions of E17z and S21. I caught most S06s transmissions and was able to hear some E07 transmissions clearly as well.

When auditioning recordings I often like to use my Sony TCM-939 Tape Recorder, which is powered from the mains. The Tape Recorder has a useful Cue/Review feature which is good for auditioning tapes very quickly. The feature is activated after the Play button is pressed, then I can hold down either Forward and Rewind buttons and still hear whatever audio is on the tape.

It is very usefull when locating the Start and End of recordings on the tape, as a few seconds of no audio will be heard indicating the end of a recording. The short gap in audio happens when the DX-394 automatically turns off but the VAS Tape Recorder still records for a few seconds before it goes back into standby mode. This short gap in the audio is very handy feature when auditioning tapes.



Auditioning Tapes, Degen De-1103, Sony TCM-939, Notepad and Hand written Enigma 2000 schedule.

When I was visiting a nearby town during the first week of my holiday I purchased an old Panasonic Ghetto Blaster RX-5120 LE from a Scope Charity shop for £4.50, which was cheaper than a pint of Fosters and a half Shandy which would cost £4.90 at the holiday village.

The RX-5120 LE is a great big heavy thing complete with the SW band from 5.9MHz to 18MHz with no gaps. Tuning was very easy and stable, it was great for listening to broadcasting stations and it wasn't hard to tune into S06 and E07 with the receiver too.

The sound quality is superb from the receiver as it has 4 speakers built into the unit, and it is loud. I never set the volume control over 1, as it was loud enough.

They didn't call these things ghetto blasters for nothing did they?

The receiver also featured LW, MW, FM stereo, built in Tape Recorder (which works), a LED Signal Meter, attachment ports for a long wire antenna for FM and SW reception and AC, DC power connections too.

Also the usual phono and microphone connections, an additional output to an external speaker and an old DIN socket for an external tape recorder as well.

I believe the receiver was manufactured in 1983, so it is almost 30 years old and quite a bargain.

My Degen DE-1103 receiver did most of my live monitoring during any spare time I had, but it was very interesting to catch Dutch Pirates on MW from the receiver as I was able to receive Radio Calypso clearly at around 1622kHz during some evenings.

It was a first for me to receive Pirate Radio on the MW bands, since I am always plagued with heavy QRM at my usual location.

There was some very interesting activity monitored during my holidays, as E11a appeared to be very active over my holiday period. E07a sent an even 46 group message on the 18/07, which appeared to be strange because the station always sends an odd amount of groups in each message it sends.

Also what happened to E06 5731kHz 2130z schedule? I auto monitored and heard a test count (with scratchy audio) roughly 1 hour before the message was supposed to be sent.

At 2130z nothing was heard from my auto recording. When I came back from the club at 2230z I noticed the carrier signal was still present so I continued monitoring the signal until 0030z, but no voice was heard during this monitoring session.

And of course E06 0030z 9061kHz never came, it is definitely the end for 759.



Panasonic RX-5120 LE, Battery Charger, Battery Tester and Orbit OR-9803 (Beach side Companion and excellent little receiver.)

See Sample Logs for Wednesday 11th and Wednesday 18th of July 2012 below:

EX	Station & Frequency	Time	Reception & Comments
DX-394	S06: 11435kHz	0530±	Fair QRN2 QSB3
DX-394	S06+ 12650kHz	0540a	153 968 7 15009 03092 968 7 00000
DX-394	S06s 7335kHz	0730z	Fair To Strong QRN3 QSB3
DX-394	S06s 11830kHz	0740z	745 980 6 17358 15751 980 7 00000
DE-1103	S06s 6755kHz	0820±	Fair To Weak QRN3 QSB3
DE-1103	S06s 5835kHz	0830z	471 905 6 53754 B9345 905 6 00000
DE-1103	E11 13427kHz	0900g	Weak QRN3 QSB2 534/00
DE-1103	S06s 14580kHz	1000z	Fair QRN3 QSB3
DE-1103	S06s 16020kHz	1010g	729 803 5 67423 09841 803 5 00000
DE-1103	Crowd 36 14656kHz	1143z	Fair QRN2 QSB2 Data TX In Progress
DE-1103	E11a 16332kHz	1155z	Weak QRN3 QSB4 719/32 89593
DX-394	S06s 7765kHz	1200z	Weak QRN3 QSB4
DX-394	S06s 6815kHz	1210s	481 Call Heard Only
DX-394	S06s 7545kHz	1230g	NEH
DX-394	S06s 8220kHz	1240a	NRH
	E11.4909kHz	1445±	Not Montored
DE-1103	E07 13468kHz	1700z	Fair To Weak QRN3 QSB3
DE-1103	E07 11454kHz	1720z	441 000
DX-394	E07 14812kHz	1900z	Fair QRN3 QSB3
DX-394	E07 13412kHz	1920g	845.000
DX-394	E07a 8173kHz	2000z	Fair QRN3 QSB3 - Fair BCQRM4 QSB3
DX-394	E07a 7473kHz	2020z	147 1 30704 538 77 12210 17664 000 000
DX-394	E07a 5773kHz	2040g	147 1 30704 538 77 12210 17664 000 000

EX.	Station & Frequency	Tone	Reception & Comments
DX-394	S06s 11435kHz	0530s	Weak QRN3 QSB3
DX-394	S06s 12650kHz	0540g	153 268 7 11171 53718 268 7 00000
DX-394	S06s 7335kHz	0730z	Weak QRN3 QSB3
DX-394	S06s 11830kHz	0740z	745 209 6 21767 41412 209 6 00000
DE-1103	S06s 6755kHz	0820z	Weak QRN4 QSB4
DE-1103	S06s 5835kHz	0830z	471 Difficult To Copy
DB-1103	E11a 13427kHz	0900g	Fair QRN3 QSB3 537/30 16782 88502
DE-1103	S06s 14580kHz	1000z	Fair QRN2 QSB2
DE-1103	S06s 16020kHz	1010z	729 403 5 52401 _ 72438 403 5 00000
DE-1103	E11 16332kHz	1155a	Fair QBN3 QSB2 718/00
DX-394	S06: 7765kHz	1200z	Weak QRN3 QSB3
DX-394	S06s 6815kHz	1210g	481 502 6 09394 58604 502 6 00000
DX-394	S06e 7545kHz	1230z	NRH
DX-394	S06s 8220kHz	1240z	NRH
DX-394	E11 4909kHz	1445s	NRH
DE-1103	E07 13468kHz	1700z	Fair QRN3 QSB3
DE-1103	E07 11454kHz	1720z	441 1 341 55 14428 55054 000 000
DE-1103	E07 10126kHz	1740z	441 1 341 55 14428 55054 000 000
DX-394	E07 14812kHz	1900z	Faut QRN3 QSB3
DX-394	E07 13412kHz	1920g	845 000
DX-394	E07a 8173kHz	2000±	Strong STANAGQRM3 QSB2
DX-394	E07a 7473kHz	2020z	147 1 68986 423 46 44743 05563 000 000
DX-394	E07a 5773kHz	2040g	147-1 68986 423-46 44743 95563 000 000

Many thanks Spectre, an interesting piece indeed. If others have details of their holiday radio activities we'd be glad to learn about them and consider inclusion in the newsletter; similarly any radio oriented activities will be considered.

Now onto other news items

Colombian man arrested for espionage in Nicaragua

Friday, 15 June 2012 11:59 Olle Ohlsen Pettersson

http://www.colombiareports.com/colombia-news/news/24621-colombian-man-accused-of-espionage-in-nicaragua.html

The Nicaraguan military reported Thursday that a Colombian man has been arrested in the Central American country for spying on the behalf of the Colombian state, according to Colombian weekly Semana.

Luis Felipe Rios, a 34-year-old Colombian national allegedly employed by the intelligence wing of the Colombian military, was arrested in the capital Managua on Tuesday after having been followed by Nicaraguan authorities for over a year, said General Julio Cesar Aviles of the Nicaraguan army.

"He was looking to obtain Nicaraguan state documents about defense and national security," said the general.

The alleged spy arrived in the country in 2010, apparently presenting himself as a Spanish citizen working for a publication that writes about security and violence issues, wrote Colombian newspaper Vanguardia Liberal.

Nicaraguan prosecutor Armando Juarez said that there was "sufficient proof" to raise a case against Felipe.

Colombian President Juan Manuel Santos responded to the national security issue Friday. "[Authorities] are investigating information about an alleged spy, a Colombian citizen," he said.

Relations between the two countries have been strained since Nicaragua laid new claims to the Colombia's San Andres archipelago, located close to the Nicaraguan coast. Colombia has controlled the archipelago, which includes the islands of San Andres, Providencia and Santa Catalina, since the 1928 Esguerra-Barcenas Treaty. Nicaragua has long refuted the treaty which was put into effect while the country was under U.S. military occupation. The dispute is currently being settled at the International Court of Justice in Holland.

 $\underline{http://www.colombia-reports.com/colombia-news/news/24621-colombian-man-accused-of-espionage-in-nicaragua.html}$

Nicaragua prosecutor demands 17-year sentence for Colombian spy

Tuesday, 10 July 2012 08:17 Sarah Kinosian

http://www.colombiareports.com/colombia-news/news/25001-nicaragua-prosecutor-demands-17-year-sentence-for-colombian-spy.html

Nicaragua's prosecutor general requested Monday that a Colombian man guilty of spying on the Central American country be sentenced to 17 years and six months in prison.

"That Mr. Luis Felipe Rios Castaño is declared guilty and with a sentence of up to 17 and a half years for the crimes of intrusion and revelation of state secrets," said prosecutor Manuel Reyes before a Managua judge and a silent defendant.

Luis Felipe Rios Castaño, a 34-year-old Colombian national, was arrested in Nicaragua's capital Managua in mid-June after having been followed by the country's authorities for over a year.

In closed-door proceedings later that month, Rios plead guilty to espionage and disclosure of state secrets.

The alleged spy arrived in Nicaragua in 2010, apparently presenting himself as a Spanish citizen working for Edefa, a Spanish publication that specializes in security and aviation issues.

Rios' final sentencing is set for the following Thursday.

http://www.colombiareports.com/colombia-news/news/25001-nicaragua-prosecutor-demands-17-year-sentence-for-colombian-spy.html

Nicaraguan court sentences Colombian in spying case

July 12, 2012 • 10:15 PM

 $\underline{http://news.terra.com/nicaraguan-court-sentences-colombian-in-spying-case, \underline{6bbcc064c1e78310VgnVCM3000009acceb0aRCRD.html}$

A Nicaraguan court on Thursday sentenced a Colombian to 16 years in prison on charges of spying and passing information to his home country.

The court sentenced Luis Rios to two consecutive eight-year prison terms for violating state secrets and meddling in domestic affairs.

Rios was captured last month and accused of bribing two Nicaraguan military officers for secrets he then passed to Colombian intelligence officials.

Diplomatic tensions between the two Latin American countries are already running high as they await a ruling from the International Court of Justice in The Hague on a long-standing dispute about which country owns a string of islands in the Caribbean.

Rios, who confessed to the crimes, posed as a reporter specializing in defense and security issues and said he agreed to become a spy in order to avoid fraud charges in Colombia.

The two military officers, Leonidas Castillo and Amaru Alvarez, have already been convicted by a military court and sentenced to 17 years in prison. (Reporting By Ivan Castro; Editing by Peter Cooney)

 $\underline{http://news.terra.com/nicaraguan-court-sentences-colombian-in-spying-case, \underline{6bbcc064c1e78310VgnVCM3000009acceb0aRCRD.html}$

Security services to get more access to monitor emails and social media

Britain has quietly agreed to new European standards on electronic communications

Mark Townsend

Saturday 28 July 2012 12.12 BST

http://www.guardian.co.uk/technology/2012/jul/28/isecurity-services-emails-social-media

Britain has quietly agreed to measures that could increase the ability of the security services to intercept online communications, experts say.

Although the Home Office is at pains to stress that the draft communications and data bill, which is going through parliament, will not involve checking the content of emails and social media, experts say British officials have been simultaneously involved in international moves that could allow increased interception of online data – moves that will not be subject to the scrutiny of MPs.

The European Telecommunications Standards Institute (Etsi), the body that sets industry standards, has agreed measures that analysts say could force internet service providers to ensure that their systems meet government standards for intercepting communications.

The government's data bill restricts the authorities to only being able to see who is contacting whom, when, where and how, while the content of online communications would remain private unless a court warrant was obtained.

A joint scrutiny committee of MPs and peers, set up following widespread concerns about increased intrusion following the unveiling of the draft bill last month, is understood not to have been informed of the Etsi standards, which critics say could precipitate an escalation in state surveillance.

While the bill does not authorise interception, experts warn that there is nothing in the proposals that prevents the authorities from then installing their own hardware capable of intercepting the communications network.

A draft report from the Etsi technical committee on lawful interception, dated April 2012, indicates that standards have been agreed that could lead to increased data interception. It reveals that measures have been agreed to monitor "nomadic access", which means surveillance of an individual whether they go online from their home computer, mobile or an internet café. To facilitate this, service providers "must implement a Cloud Lawful Interception Function (Clif)" that could mean the installation of a new monitoring interface "or more likely ensuring presentation of information in a format recognisable to interception mechanisms".

Etsi has faced criticism in the past for the pre-emptive inclusion of wiretapping capabilities, a decision that critics say encouraged European governments to pass their wiretapping laws accordingly. According to Ross Anderson, professor in security engineering at the University of Cambridge Computer Laboratory, the institute has strong links with the intelligence agencies and has a significant British contingent, along with a number of US government advisers.

The development has led to fears among civil liberties campaigners that the bill could become a stepping stone towards plans to monitor and control access to content.

Anderson said: "It's an absolutely massive extension of state surveillance. At present the government can watch anybody. What they want in the future is to get into a position where the government can watch everybody.

"They are saying this is only about communications data, but in fact it is not. If you build the infrastructure that Etsi have agreed, it can be used for interception.

The documents show that there is a clear and continuing intention to use it for interception."

Some experts believe that allowing the government to install its own hardware at internet service providers, as currently proposed by the bill, would have to comply with the Etsi standards and would lead to interception of an individual's online content.

Nick Pickles, director of the privacy and civil liberties campaign group Big Brother Watch, said: "We're seeing moves at an international level to make it easier For the content of communications to be intercepted. For Home Office officials behind the communications data bill, spying on who we are emailing or Skyping is not their final objective. Officials from Britain are working internationally to force service providers to ensure that their systems are easy to tap into."

He said it was worrying that the Etsi standards had not been disclosed to the committee of MPs and peers, introduced as one of the safeguards following opposition to the proposals. The committee will examine all aspects of the draft bill and is expected to report in November.

However, a Home Office spokesman said there were no plans to collect the content of online data.

"It is simply untrue to suggest we would be able to collect the content of communications data. The changes we are making only relate to the who, where and when of communications data. The interception of the content of any communications is a completely separate matter and continues to be strictly controlled by the Regulation of Investigatory Powers Act, requiring a warrant signed by the secretary of state."

http://www.guardian.co.uk/technology/2012/jul/28/isecurity-services-emails-social-media

Submariner accused of passing encryption data to 'enemy'

A Royal Navy submariner allegedly passed computer codes used to encrypt secret messages to an enemy state, the Old Bailey heard. By Tom Whitehead, Security Editor

4:57PM BST 11 Jun 2012

http://www.telegraph.co.uk/news/uknews/law-and-order/9324590/Submariner-accused-of-passing-encryption-data-to-enemy.html

Petty Officer Edward Devenney, 29, is accused of breaching the Official Secrets Act by collecting and passing on the code breaking data.

He is said to have handed over the secret information, which might be useful to an enemy, to an unnamed individual in January this year.

He is also accused of gathering data on encryption and cryptography technology between November 18 last year and March 7 this year.

Cryptography is the technique used in programmes to encrypt secret information.

Information on the techniques is likely to be examined in a closed hearing at any future trial.

He was arrested at his barracks in Plymouth in March. At an earlier hearing, Westminster magistrates' court heard he allegedly offered military information to a foreign embassy.

An application for bail – heard in chambers at the Old Bailey on Monday – was refused by the judge, Mr Justice Saunders. He also granted anonymity to potential security industry witnesses due to give evidence.

Devenney, of Strabane, Co Tyrone, Northern Ireland, was due to enter a plea to two breaches of the Act, but the case was adjourned for legal reasons.

Appearing via videolink from Wandsworth prison, in southwest London, and dressed in a green shirt and blue striped sweater, he spoke only to confirm his name.

He will return to court on a date to be fixed in early October to enter a plea. A provisional trial date has been set for November 13.

It will be decided during the October which parts of the evidence will need to be heard in secret.

The petty officer's legal team are currently in the process of consulting security experts. They were given until July 20 to submit their defence case to the court.

He is being represented by Lord Carlile of Berriew QC, a leading barrister and former MP who defended Paul Burrell, who was the butler of Diana, Princess of Wales

Devenney, who served at HMS Drake in Plymouth, Devon, faces two charges under 1911 Official Secrets Act.

They are collecting information for a purpose prejudicial to the safety or interests of the state, collecting any secret official code word or password or sketch, plan, material article or note, or other document or information, namely cryptographic material that was calculated to be or might be, or was intended to be directly or indirectly useful to an enemy.

The second charge relates to communicating information to another person for a purpose prejudicial to the safety or interests of the state, communicating to another person information that was calculated to be or might be or was intended to be directly or indirectly useful to an enemy.

In 2008, in an unrelated case, Corporal Daniel James, an Army translator who worked for the head of Nato forces in Afghanistan, was found guilty of breaching the Official Secrets Act.

Cpl James, 45, an Iranian by birth, sent coded emails to about British troop movements to the Iranian military attaché in Kabul,

In 2010, MI6 employee Daniel Houghton, was also convicted and jailed for breaching the act.

The IT graduate, 25, helped develop a method of intercepting emails in the secret service, but tried to sell official secrets for £2 million to agents from the Netherlands.

In 1997, former MI6 officer Richard Tomlinson was jailed for violating the Official Secrets Act by giving a synopsis of a proposed book to a publisher.

He pleaded guilty to the breach, after apparently giving details of his career in the Secret Intelligence Service, but the book was later published.

In 1983, Foreign and Commonwealth Officer Sarah Tisdall was imprisoned for leaking government documents to the Guardian newspaper.

http://www.telegraph.co.uk/news/uknews/law-and-order/9324590/Submariner-accused-of-passing-encryption-data-to-enemy.html

MI5 warned Scotland Yard that policemen in its ranks were suspected of attending terrorist training camps, it can be disclosed.

Abdul Rahman admits travelling to Pakistan in 2001 but denies attending a terror camp By Ben Leach, and David Barrett

9:00PM BST 12 May 2012

 $\underline{http://www.telegraph.co.uk/news/uknews/terrorism-in-the-uk/9262379/MI5-feared-British-police-attended-terrorist-camps.html}$

The policemen lost their jobs when their security clearance was revoked by senior officers after checks were carried out because of fears of "sleepers" in the ranks.

The Sunday Telegraph can also disclose today the identity of one of the policemen suspected of being at a terror camp in 2001.

Abdul Rahman had been a constable for almost three years when MI5 warned that he might have visited a training camp in Pakistan when he travelled there.

He resigned rather than be dismissed from the force and is now suing Scotland Yard for compensation. He says he is entirely innocent and has never been to a terrorist training camp.

His lawyers say he has never been questioned, arrested or charged under terrorism legislation.

Mr Rahman, 33, is the first British policeman ever disclosed to have failed counter-terrorism checks.

Scotland Yard submitted in legal documents that it acted against Mr Rahman "for the purpose of safeguarding national and public security". A source familiar with the case said there were either one or two other officers who had also lost their jobs because of MI5's suspicion that they might have trained as terrorists.

"There was concern that these people had come into the force under false pretences," the senior Metropolitan Police source said. "There were two or three cases at the same time that were of a similar nature, where there were concerns about potential terrorist links."

The development raises concerns about the ease with which potential terrorists might infiltrate the police and compromise national security.

It is believed that Mr Rahman's clearance was revoked as part of a root-and-branch security review carried out by MI5 after the July 7, 2005 terrorist attack, and the subsequent failed July 21 bombings.

The fact that he was under MI5 suspicion was disclosed in court documents made public as he fights a lengthy legal case over his departure from the force.

The case is so sensitive that it is being heard by a security-vetted judge.

Mr Rahman, a Muslim who was born in Bangladesh before being raised in London and becoming a British citizen, does not dispute that he went to Pakistan in 2001

However, his lawyers say he has been "tangled up" in national security legislation.

Mr Rahman became a probationary constable in the Metropolitan Police in September 2003 then attended Hendon Police College, completing his initial training in March 2004.

His passing out parade, at Hendon, was reviewed by the former Deputy Assistant Commissioner Peter Clarke, who at the time was Britain's most senior counter-terrorism police officer.

As part of his recruitment Mr Rahman underwent a process of security vetting known as a counter-terrorist check (CTC).

However, his security clearance was suspended on June 22, 2006. He was interviewed three times — most probably by counter-terrorism officers — in the following months.

In November 2006 he was told by Det Chief Supt Robert Sait — a senior officer in the Metropolitan Police's specialist operations directorate, which includes the counter-terrorism command — that his CTC vetting clearance had been revoked.

Mr Rahman was told that he had an internal right of appeal against the decision, which he decided to exercise.

A week before the appeal hearing in June 2007 he was told that if the hearing confirmed the removal of his CTC clearance he was likely to be dismissed.

The appeal hearing was conducted by Mr Clarke, who upheld the decision to remove his CTC clearance. Mr Rahman resigned immediately.

Shortly before Mr Rahman's clearance was suspended, MI5 rechecked details of officers and civilian staff at the Met, and other forces, against their records of suspects who had been to Pakistan or Afghanistan and who it suspected might have attended terrorist training camps or madrassas — Islamic schools — run by extremists. Mr Rahman, who is married with four children, declined to comment on the case. He claims he is the victim of racial and religious discrimination.

His lawyer, Jasmine van Loggerenberg, of Russell Jones and Walker, said: "My client absolutely denies the allegations against him and this forms the basis of his claims against the police.

"It's important to stress that this is a case being brought by Mr Rahman, not by the Metropolitan Police.

"There are no criminal proceedings against him. Mr Rahman has never been arrested, questioned or charged in a criminal context in relation to these proceedings."

Mr Rahman's father, who lives in Poplar, east London, said: "He is a very genuine and very honest man. He has nothing to hide. He is a family man.

"The allegations against him are untrue. He is very pious, he prays five times a day and I think he didn't fit in in the police because of that."

Last month, after a five-year legal battle, the Employment Appeal Tribunal ruled that his case could be held in secret although Mr Rahman had wanted a public hearing. Mr Justice Mitting, a High Court judge who also specialises in terror cases in his role as

chairman of the Special Immigration Appeals Commission, ruled that Mr Rahman and his legal team would be banned from parts of the hearing that concerned issues of national security.

Scotland Yard applied to have Mr Rahman's case heard in secret because it is keen to protect intelligence sources which provide highly-sensitive information.

These sources might be compromised if the sensitive evidence emerges in open court. Some of the information might have come from overseas security services, such as the CIA.

Instead, a security-cleared "special advocate", rather than his own lawyer, will be appointed on Mr Rahman's behalf.

However, he will be banned from discussing the case with Mr Rahman and his lawyers. Mrs van Loggerenberg said that it was Mr Rahman's position that questions of national security could "override natural justice".

Mrs van Loggerenberg said: "This case also raises important issues on whether practices which disadvantage innocent people on the basis of their ethnic or religious background can ever be justified, when the allegations that result are so serious."

Scotland Yard's vetting unit is regarded as one of the best in Britain, mainly because the force has countrywide responsibilities in counter-terrorism.

However, it is understood that there are difficulties carrying out full checks on applicants born abroad or who have spent a long time living outside Britain.

MI5 carries out the CTC vetting on behalf of the Met, other police forces and government departments.

It is the lowest of three levels of vetting under the Cabinet Office's Security Policy Framework. However, individuals who pass the CTC procedure are allowed access to documents classified as "confidential" and can be granted occasional access to "secret" documents.

They also have access to areas where classified papers are stored.

CTC applicants must fill in a detailed form. They are required to declare whether they have ever spent significant time outside Britain.

MI5 checks the applicant against its databases, and the person's name is also run through the Police National Computer.

The process also includes checks to verify a person's identity and their employment and education references.

It can take up to six months to complete vetting and clearance is valid for three years.

"If police officers lose their CTC they are effectively unemployable," said a police source.

"They cannot be allowed to access the Police National Computer, or other vital things in the course of their day-to-day work."

James Cleverly, a Conservative member of the London Assembly committee that oversees the Met's work, said: "The fact is that this was flagged up and the security clearance was rescinded, showing the Met is not blase about such issues.

"The system seems to have worked at that level."

A spokesman for Scotland Yard said: "Mr Rahman, a former police constable, is bringing two employment tribunal claims against the Metropolitan Police Service alleging race discrimination and employment equality.

"A full merits hearing is yet to be listed."

The Government introduced new laws making it a criminal offence to attend a terrorist training camp as part of the Terrorism Act 2006. The offence carries a maximum penalty of 10 years' imprisonment.

The first convictions under the new offence were secured in 2008.

A spokesman for the Association of Chief Police Officers said: "All police employees undergo a range of security checks when they join the service and, as necessary, these are reviewed through the course of their career depending on where they work and the nature of the material they are dealing with."

http://www.telegraph.co.uk/news/uknews/terrorism-in-the-uk/9262379/MI5-feared-British-police-attended-terrorist-camps.html

Drone warfare: a new generation of deadly unmanned weapons

Business is booming at the vast base in Nevada, where tomorrow's Top Guns are learning to target terrorists from afar Rory Carroll at Holloman air force base

Thursday 2 August 2012 16.40 BST

 $\underline{http://www.guardian.co.uk/world/2012/aug/02/drone-warfare-unmanned-weapons}$

The electronic cavern is dark, save for the glow of consoles, and Lt Col Mike Weaver surveys his apprentice warriors with satisfaction as they project American might halfway around the world. One crew – two young men in flight suits seated before half a dozen screens – prepares to fire missiles from a remotely piloted aircraft (RPA) at a boatload of suspected insurgents in Afghanistan. Another crew circles a suspicious bulge by a roadside in Iraq and feeds co-ordinates to ground troops. Another tracks what appears to be a vehicle in Yemen.

"There's not a lot of time for emotion here. There's a war going on and we have a job to do," says Weaver, a veteran F15 fighter pilot.

The only sound is the whirr from multiple computers, their entrails exposed, and the occasional murmur from a pilot into an earpiece. "I've flown manned aircraft and believe me this, in terms of combat, is more up close and personal."

Weaver is speaking from Holloman air force base in New Mexico, about 8,000 miles from the scenes depicted on the screens, but he and the crews embody not only the "war on terror" but the future of US military force.

The missions, in fact, are simulations. The crews are students yet to earn their wings. But this vast base, covering 24,000 hectares of scorched desert, is fast becoming a type of Top Gun academy for a new generation of airmen and women who operate not from cockpits but trailers wedged in the sand.

A fleet of F-22 Raptors, state-of-the-art, manned fighter jets, are to be moved to another base to let Holloman focus on training crews for unmanned MQ-1 Predators and MQ-9 Reapers – drones, in common parlance.

The base has rapidly expanded and accelerated training to meet booming Pentagon demand. This year it will graduate 360 crews, products of a new, drone-specialised syllabus that has halved the year-long period to train conventional fighter pilots. A crew comprises a pilot, a sensory operator and, in some cases, a mission co-ordinator. Around 95% stay in the US.

"We're getting the best and brightest," says Major Jason, 35, an instructor pilot who, like several colleagues, withheld his surname for security reasons. "There's a bright future for RPAs so we're getting motivated, sharp guys."

Also known as unmanned aerial vehicles (UAVs), not so long ago they were scorned by many in the military. "It wasn't the sexy thing to be seated in a ground control station. But we're changing a lot of minds," says Captain Chad, 29, another instructor. "People are seeing our capabilities and what we're doing."

What the burgeoning RPA fleet is doing, above all, is enabling the Obama administration's tracking and lethal targeting of Islamist radicals in Afghanistan, Pakistan, Somalia and Yemen, a campaign estimated to have killed at least 2.000 people.

To critics including the former president Jimmy Carter, legal scholars and human rights groups, the strikes are extrajudicial executions that violate nations' sovereignty, stain US moral standing and fuel extremism.

Such critics may consider it apt that Holloman straddles the Jornada del Muerto – Journey of the Dead Man – the macabre Spanish name for the perilous, waterless shortcut through the wilderness once used by Billy the Kid. Situated on a high desert plain, the base bakes by day, shivers by night and witnesses spectacular lightning storms. It has evocative neighbours. To the east, Roswell, which the conspiratorially minded already associate with human-less aircraft; to the west,

Truth or Consequences, a town named after a 1950s radio quiz show.

At a time of cutbacks, Barack Obama has set aside around \$5bn for Predators and Reapers, signalling their growing importance and ubiquity as a policy instrument. The air force has struggled to supply enough crews for the multiplying hardware.

Hence Holloman's transition to running a dedicated RPA-only training programme that supplements military instructors with civilian contractors such as Keith Vraa, a retired air force lieutenant colonel, nicknamed Hoo, who runs simulations at the 16th training squadron.

"So many pilots are on operations there aren't always enough left to instruct. We're here to fill the gap."

The course strips away the need for mastering cockpits and G-forces. Instead, trainees, after basic flight training, plunge straight into nuances such as multispectral targeting systems that integrate infrared sensors, enhanced TV cameras and laser designators and illuminators into single packages.

They learn that a Predator's relatively slow cruising speed – 84mph – is an advantage while "loitering" over targets. And that the much faster and larger Reaper, armed with Paveway II and GBU-38 joint direct attack munitions in addition to Hellfire missiles, "provides a unique capability to autonomously execute the kill chain against high-value, fleeting, and time-sensitive targets".

They train in simulators inside windowless, one-storey buildings as well as ground control stations, camouflage-painted trailers from which they control real RPAs over New Mexico's skies.

An increasing number of students are teenagers straight from high school. Others are veteran flyers of fighters, bombers and cargo planes who have been reassigned or are here by choice because of the dwindling number of available cockpits. "F16 pilots used to say they were coming from a Ferrari to a Ford Festiva but you hear less of that now," says Chris, a sensory operator instructor.

"A lot of the higher-up ranks are here because they know this is the future. And who wouldn't want to be at the forefront of that?" He indicated a Predator on a runway.

Instructors are keen to correct two misconceptions. They are not all good at video games. And it is incorrect to call the aircraft drones – the word makes teeth grind – because they are at all times controlled by humans. Crews prefer the term RPA to UAV because "unmanned" diminishes their input.

All agree that RPAs are vital to protecting the US. Many say their primary task is protecting comrades by sharing real-time information about boobytraps or hidden gunmen, or preventing attacks by disrupting terror networks.

Doing so can require greater skill than being in a cockpit, they say, because they must multitask and hold multiple conversations through different media, in some cases while senior officers, intelligence analysts and military lawyers peer over their shoulders. They must stay focused for long stretches of surveillance, when not much happens, and be ready for sudden engagements.

"It's real. Sometimes you can hear gunfire and stress in the voice of the guys on the ground. There's no video game in the world that makes the difference between life and death," says Chad, the pilot, who used to fly missions from Creech air force base outside Las Vegas.

"On the drive home I would decompress. Listen to music, take a deep breath, compartmentalise so I could make the transition to husband, father, family man."

A certain defensiveness mingles with the pride. Asked about accusations that drone strikes are extrajudicial executions, or assassinations, Weaver stiffens. "That's for the politicians to consider. We follow the orders of our civilian leaders."

All bristle at any suggestion that waging war by remote control requires less bravery than traditional combat.

"There are different types of courage," says Jon, a lieutenant colonel, standing in an officers' bar adorned with a replica medieval suit of armour, a framed tomahawk and oil paintings of John Wayne and Clint Eastwood. "Ours requires moral courage. We take moral and legal risks. If I pull the trigger and I'm wrong I have to live with the consequences."

 $\underline{http://www.guardian.co.uk/world/2012/aug/02/drone-warfare-unmanned-weapons}$

The 7oz helicopter that could help beat the Taliban: \$35.000 device enables soldiers to look at enemy territory without risk of being killed By Ian Drury

PUBLISHED: 00:02, 3 August 2012 | **UPDATED:** 12:10, 3 August 2012

 $\frac{http://www.dailymail.co.uk/sciencetech/article-2182916/The-7oz-helicopter-help-beat-Taliban--20-000-device-enables-soldiers-look-enemy-territory-risk-killed.html \\ \#ixzz22UVUwJjT$

It fits in the palm of your hand, weighs the same as a bag of sweets – and could become a potent new weapon in our fight against the Taliban.

Military chiefs believe a £20,000 spy drone called the SQ-4 Recon, one of the smallest unmanned aerial vehicles in the world, will save soldiers' lives in Afghanistan.



The 'nanodrone' contains two cameras which allow soldiers to look over hills and inside enemy bunkers without the risk of being killed or injured. It can be operated remotely by troops sitting in a control room thousands of miles away or by soldiers on patrol using a seven-inch tablet computer.

Weighing just seven ounces and with a nine-inch diameter, the nanodrone can fly and hover for 30 minutes or switch off its engines and perch like a bird on the ledge of a building, and, without being spotted, zoom in on suspicious activities for up to eight hours.

Its cameras can transmit live images or take still photos or video footage using day or night vision.

This means soldiers can carry out reconnaissance missions without putting themselves at risk of walking into an ambush or stepping on a buried bomb.

Devised by Cardiff-based BCB International and Middlesex University's Autonomous Systems Laboratory, the SQ-4 Recon is being examined by the US military.

The Ministry of Defence is also aware of the nanodrone's potential.

Andrew Howell, managing director of BCB International, said: 'This gives the modern war fighter the ability to carry out reconnaissance tasks without putting themselves in harm's way.

The video footage could give information on where the enemy is located, what they look like, how they are dressed and what weapons they have.

'Should things take a turn for the worse, no operators can be captured or killed. It also allows for more service personnel to be released for frontline duties.'

The current drones deployed in Afghanistan are so large they have to be launched like conventional fixed-wing aircraft and make easy targets for Taliban marksmen.

In February, Defence Secretary Philip Hammond admitted that 'new nano-unmanned aerial systems... are planned for introduction'

 $\frac{http://www.dailymail.co.uk/sciencetech/article-2182916/The-7oz-helicopter-help-beat-Taliban--20-000-device-enables-soldiers-look-enemy-territory-risk-killed.html \\ \#ixzz22UVUwJjT$

Drone race will ultimately lead to a sanitised factory of slaughter

The rise in use of drone attacks and the technology that goes with them is the final step in the industrial revolution of war

Noel Sharkey

Friday 3 August 2012 15.27 BST

http://www.guardian.co.uk/world/2012/aug/03/drone-race-factory-slaughter

The CIA has killed more than 200 children in drone strikes outside of legitimate war zones since 2004, it is alleged. In Pakistan, Yemen and Somalia an estimated total of between 451 and 1,035 civilians were killed in at least 373 strikes according to the Bureau of Investigative Journalism, the most accurate source of "kill statistics"

Who in their right mind would give a powerful unmanned air force to a covert organisation with such a track record for unaccountable and illegal killing? The number of strikes in Pakistan has dramatically increased from 52 under George W Bush during his five years of conflict to 282 during Obama's three and a half-year watch. Obama is establishing a dangerous precedent that is, at best, legally questionable in a world where more than 50 countries are acquiring the technology.

This is big business with billions of dollars at stake. Israeli companies are pursuing new drone markets in Asia and Latin America. The US has restricted drone sales to its allies but now, with defence budgets shrinking, companies such as Northrop Grumman and General Atomics are lobbying their government to loosen export restrictions and open foreign markets in South America and the Middle East. Other countries such as India and Pakistan are also hungry for the technology. Russia has unveiled its MiG Skat combat drone with on-board cruise missiles for strikes on air defences as well as ground and naval targets, while Iran demonstrated an armed rocket launched drone, the Karrar, in 2010.

But it is China that is showing the greatest commercial potential for selling armed drones. The US-China Economic and Security Review Commission noted with concern that China "has deployed several types of unmanned aerial vehicles for both reconnaissance and combat". More worryingly, the Washington Post quotes Zhang Qiaoliang from the Chengdu Aircraft Design and Research Institute as saying, "the United States doesn't export many attack drones, so we're taking advantage of that hole in the market". Given the 10-year spate of CIA drone strikes, what can be said when other countries use drone strikes against perceived threats in other states?

And this is just the beginning; current drones are like the Wright brothers' prototypes compared with what's coming next. And here is where the real danger resides: automated killing as the final step in the industrial revolution of war – a clean factory of slaughter with no physical blood on our hands and none of our own side killed

Using programmed robots with no humans directly in the loop has been high on the agenda set by the US military roadmaps since 2004. And BAE systems has been developing an autonomous combat aircraft demonstrator, the Taranis, for the Ministry of Defence. There are several good military reasons for removing direct human control. Currently drones are used with ease against low-tech communities in a permissive air space. More technologically sophisticated opponents would adopt counter strategies such as jamming satellite signals to render them useless or bring them down. A fully autonomous drone could still seek out its target without human intervention. Other reasons include to take out the pilot – reduced numbers of personnel required to fly them, reduced cost, and faster control time: the 1.5 second delays caused by humans in the loop thousands of miles away means that a drone is powerless against a manned fighter. The speed of an unmanned craft is limited by its structure rather than by human G-force limitations. It can manoeuvre faster and take sharp turns that would injure or kill a human pilot on board.

The US has been testing the fully autonomous supersonic Phantom Ray and the X-47b will appear on US aircraft carriers in the Pacific by 2015. Meanwhile, the Chinese (Shenyang Aircraft Company) are working on the Anjian (Dark Sword) supersonic unmanned fighter aircraft, the first drone designed for aerial dogfights.

Hypersonic drones are also on the wishlist. Darpa, the Pentagon's research arm, has the HTV-2 programme to develop armed drones that can reach anywhere on the planet within 60 minutes. In recent tests their Falcon drone flew at a maximum speed of 13,000 mph (20,921.5 kph), about 8.5 times faster than the Russian MiG-25. The hypersonic fully autonomous drones of the future would create very powerful, effective, and flexible killing machines. The downside is that these machines will not be able to discriminate on their targets – there are no programmes capable of distinguishing civilian from combatant.

We have records of civilian casualties, including numerous children, from drone strikes when there are humans watching on computer screens and deciding when to fire. Think how much worse it will be when drones deal death automatically. Is this really a technology we want the secret intelligence services of the world to control?

• Noel Sharkey is professor of artificial intelligence and robotics at Sheffield University. He is a founding member of the International Committee for Robot Arms Control

Julian Assange granted political asylum by Ecuador; Britain maintains extradition pledge

By Karla Adam, Published: August 16

 $\frac{\text{http://www.washingtonpost.com/world/europe/julian-assange-granted-political-asylum-by-ecuador-britain-maintains-extradition-pledge/2012/08/16/414c66c8-e7a5-11e1-9739-eef99c5fb285\ story.htm}$

LONDON — WikiLeaks founder Julian Assange was granted asylum on Thursday by Ecuador, raising the possibility of a diplomatic showdown between British and Ecuadoran authorities.

The transparency campaigner has been holed up at the Embassy of Ecuador in London for nearly eight weeks after seeking refuge there in a bid to avoid extradition to Sweden, where he is wanted for questioning over alleged sex crimes.

The British Foreign Office made it clear Thursday that Ecuador's decision does not alter Britain's intention of fulfilling its legal obligation to extradite Assange. "We shall carry out that obligation," it said in a statement. "The Ecuadorian government's decision this afternoon does not change that."

At a news conference in Quito, Ecuador's foreign minister, Ricardo Patino, said Ecuador had decided to grant asylum "because of the fears expressed by Mr. Assange, we believe that his fears are legitimate, and there are threats that he could face political persecution if the measures aren't taken to avoid them."

Patino said Ecuador failed to get guarantees from Britain, Sweden and the United States that Assange would not be extradited from Sweden to the United States. His supporters believe he could be tried for espionage in the United States over his whistle-blowing Web site's release of hundreds of thousands of confidential military logs and diplomatic cables.

Firing off tweets, the British Foreign Office said it was "disappointed" with the decision. "Under our law, with Mr Assange having exhausted all options of appeal UK authorities are under binding obligation to extradite him to Sweden," it said.

It's not clear what's next for Assange, who faces arrest the minute he steps foot out of the Ecuadoran Embassy for breaching one of the conditions of his bail, namely to check in at a designated address between 10 p.m. and 8 a.m.

A few dozen police officers were stationed outside the embassy, in London's upscale neighborhood of Knightsbridge, as Assange supporters protested nearby.

"It's hard to see how practically he gets out of the country. The British won't acknowledge his asylum and aren't required to," said Julian Knowles, an expert in extradition law.

Ratcheting up diplomatic tensions further, Ecuadoran officials revealed Wednesday night that they had received a written warning from Britain saying that British police could enter the Ecuadoran Embassy to arrest Assange under the Diplomatic and Consular Premises Act, a little-known piece of legislation passed in 1987.

Initially, when Assange fled to the embassy June 19, the British government said he was beyond the reach of law enforcement officials. But Patino said Wednesday that British authorities informed them they could "storm" the embassy if Assange was not handed over.

The Associated Press said that the Swedish Foreign Ministry called in the Ecuadoran ambassador to complain about the decision. AP reported that Swedish Foreign Minister Carl Bildt said in a Twitter message, "Our firm legal and constitutional system guarantees the rights of each and every one. We firmly reject any accusations to the contrary."

It was clear in Patino's lengthy statement Thursday that the political temperature between Ecuador and Britain has risen sharply, with Ecuador feeling bullied by "colonial" Britain.

In June, Assange exhausted all of his legal options in Britain when the country's Supreme Court upheld Sweden's extradition request, ending a marathon legal battle that began after his arrest in December 2010.

Swedish authorities want to question Assange over allegations of sexual abuse involving two women he met in separate encounters during a trip to Stockholm in August 2010. The 41-year-old Australian strenuously denies the allegations, admitting he had brief affairs with the women but insisting the sex was consensual.

 $\frac{http://www.washingtonpost.com/world/europe/julian-assange-granted-political-asylum-by-ecuador-britain-maintains-extradition-pledge/2012/08/16/414c66c8-e7a5-11e1-9739-eef99c5fb285_story.htm$

COMMENT

This is a fiasco, just look at the facts:

Assange leaks diplomatic cables in cahoots with Bradley Manning, a serving US soldier who is now in gaol.

When Assange goes on the run he's suddenly wanted to take part in an inquiry for his alleged rape of two women, apparently in Sweden. He was previously interviewed and told he could go.

Once extradition to Sweden is complete the case will be 'no further action 'and then there'll be extradition to the US as Sweden is being used as a staging post.

 $This is \ a \ typical \ move from \ the \ US; \ they \ have \ discredited \ someone \ who \ has \ blown \ the \ lid \ on \ US \ actions \ throughout \ the \ world \ and \ Assange \ has \ outsmarted \ them.$

Irrespective of the UK bail conditions that Assange has flunked HMG should keep its nose out of this and let the US do its own dirty work.

Now a special translation from Fritz:

A mysterious job application

Published in "Neue Zürcher Zeitung", August 9, 2012 Author: Dominik Landwehr

Recently released documents of US secret services prove how Swiss encrypted telegrams during WW 2 have been intercepted by NSDAP (vulgo Nazi) secret service.

Autumn 1948: WW 2 has ended two and a half years ago. Germany is in ruins. In Switzerland people still discover in surprise they survived the European disaster without much damage to the country. In this time Bern (capital of Switzerland) receives a voluminous document. It has been written by a crypto expert, who, on the German side, dealt with encrypted transmissions of Switzerland. The most important message of the document was: Nazi-Germany could with ease write down the Swiss encrypted wireless traffic. Autor of the document was a certain Bruno Kröger from Kaufbeuren.

Security Problems

During WW 2 Switzerland used German encryption technique. Into action came the famous ENIGMA machine, which, before the outbreak of war, was freely available. Swiss customers used the "K" type machine ("K" for "kommerziell"). The ENIGMA K was practically identical with those war machines, which could be decrypted later on by British specialists.

In the first part of the document Bruno Kröger explains, how the Swiss ENIGMA can be cracked. His judgement is more than clear: "There is no way, at this moment, to use the ENIGMA K such, that it may fulfill the needs of security."

In the second part he goes substantially far back and tries to establish common rules for the security of encryption methods. Only on the very last page Bruno Kröger deals with the real background of his letter: he simply is looking for a new job and now offers Switzerland his knowledge. His field of work he defines very generously and includes wholesale trade and big banks, because, "their secret correspondence was easy to decrypt."

Bruno Krögers document, surprisingly, can not be retrieved in the Swiss Federal Archives nor in the Historic Archives of Military. A former employee of the Swiss Intelligence Service told the author about the Kröger paper and the former head of the cryptographic departement of the Swiss Army made it available without delay.

It is not known, whether Bruno Kröger ever received an answer from Swiss authorities. According to sources the documents have been judged to be authentic. But: The informations were not new to Switzerland! The problems of the ENIGMA K were well known, both the design weaknessest and the mistakes due to wrong operation. That's why during WW 2 development of an own encrytion machine was started, which did not suffer from such shortcomings. It's name was NEMA (simply for NEue MAschine, New Machine). However NEMA, an excellent machine, came into operation only after the war.

But who was Bruno Kröger? When the US National Security Agency (NSA) in June 2010 released documents from WW 2, a comprehensive report of more than 1000 pages was included, its title: "European Axis Signal Intelligence in World War II". This was the final report of the Ticom-Commission, dated 1. May 1946. Ticom means "Target Intelligence Committee", a secret allied group with the goal to describe the cryptographic activities of Nazi-Germany.

Among the most important statements was the discovery, that German cryptanalists not were capable to read cryptographic systems of the highest level. Such systems were for example the American voice encryption machine with the codename SIGSALY, used for phone patches between Roosevelt and Churchill and the TYPEX, a Rotor Machine, which was recognised to be sure. On the other hand the Ticom Teams came to the conclusion, that the Germans cracked many codes and machines of intermediate security level and read the messages: "The results obtained by the German cryptanalytic successes were important, but not decisive."

By means of Ticom Interviews the allies found out, that the Germans did not have knowledge of the enormous operations in Bletchley Park, where a great part of their ENIGMA messages has been decrypted. Volume 7 of the Ticom Report deals on 122 pages with the German "Forschungsamt für Reichsluftfahrt" (Research Agency of Aviation), one of the many intelligence services of the Third Reich. And exactly here the name of Bruno Kröger appears again.

Marshall Hermann Göring directly was in charge of the Research Agency with its 2000 employees in Berlin-Charlottenburg. The main task of the Research Agency was the supply of information gained by interception of telephones, telegraph and wireless transmissions to the Nazi state. The evaluation of press releases was another branch. Unlike the name suggests, the Research Agency had nothing to do with a division of aviation, but was an intelligence service of the Nazi party.

Open Questions

On Mai 9th 1945 - the day after Germanys capitulation - the abandoned barracks of the "Forschungsamt" were discovered in Kaufbeuren. Part of the activities apparently have been dislocated from Berlin to Kaufbeuren. 20 of the 2000 employees of the "Forschungsamt" have been interviewed by Ticom specialists and - one of the 20 was Bruno Kröger. According to the available facts, there are no doubts about the identity of Bruno Kröger: he was one of the cryptographic experts of an intelligence service of the Third Reich, who was taken prisoner of the allies and there he answered for his connections. The documents for the US and Switzerland most probably were produced at the same time.

The files of Bruno Kröger and Switzerland are not yet closed. By far not all documents of the Ticom project are open to the public. It is unknown, what happened to Bruno Kröger after WW 2.

Tnx Fritz.

Chart Section Index

For July and August, 2012:

- 1. Logging Abbreviations Explained
- 2. European Number Systems
- 3. Prediction Chart
- 4. M01, M01b and M45 Schedules
- 5. M12
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- 7. Family 1b [E07]
- 8. Family III
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- 10. S06s Regular Schedule
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Logging Abbreviations explained.

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

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

Station: E07 [Traits of stations in ENIGMA Control List]

Freq: kHz [As above 10436kHz]

Time: z [Always 24hour clock, 'z' states GMT/UTC]

Date: day/month [As above 7th June]

Msg detail: <u>Varies with station</u>

ID taken from 100kHz fig in freqs: 414 [freqs used in this schedule were 13468, 12141 and 10436kHz]

Msg count 1
Dk [decode key]: 563
Gc [group count]: 102
First group of msg: 92632
Text between grps: ...

Last group: 09526 [where more than one group is stated the use of LG ahead group

indicates 'Last Group.']

Ending: 0 0 0 0 0 0 0 0 Time msg ends: 1753z
Received signal strength assessment: Fair
Noise QRM2
Fading to signal QSB2

Monitor: PLdn

Day heard: SUN

Unknown: unk

Repeat: R [which can be expanded to mean]:

Repeated: R5m [repeated 5 mins]; R5s[repeated 5 seconds], R5x [Repeated 5 times]

Received signal strength assessment.

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

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

Guidance for this can be sought from the Q code:

QSA What is the strength of my signals (or those of...)?

The strength of your signals (or those of...) is...

- 1) scarcely perceptible.
- 2) weak.
- 3) fairly good.
- 4) good.
- 5) very good.

 $[QSA1\ S0\ to\ S1;\ QSA2\ S1\ to\ S3;\ QSA3\ S3\ to\ S6;\ QSA4\ S6\ to\ S9;\ QSA4\ S9\ and\ above]$

Sooner than put a numerical value we state: Very Weak, Weak, Fair, Strong or Very Strong.

Noise, Static and Fading.

Again guidance from the Q code:

Noise:

QRM Are you being interfered with?

I am being interfered with

- 1) nil
- 2) slightly
- 3) moderately
- 4) severely
- 5) extremely.

Note: in the sample the monitor has stated QRM2 which means 'slight noise'; had the interference been from a broadcast station you might have read 'BC QRM2' and so on.

Static [Lightning and other atmospheric disturbance]:

QRN Are you troubled by static?

I am troubled by static 1) nil

- 2) slightly
- 3) moderately
- 4) severely
- 5) extremely.

Fading [Propagational disturbance]

QSB Are my signals fading?

Your signals are fading

- 1) nil
- 2) slightly
- 3) moderately
- 4) severely
- 5) extremely.

Note: in the sample the monitor has stated QSB2 which means 'slight fading' where the received signal obviously fades but the message is still intelligible.

The use of QRM1, QRN1 and QSB1 is not expected; if there is no such aberration to the signal it need not be stated.

Day Abbreviation

Self explanatory: SUN, MON, TUE, WED, THU, FRI, SAT

Mode used in transmission

Generally the mode of transmission is not stated, being available in the ENIGMA Control List. Should the expected mode change then this can be stated as: CW [Carrier Wave] MCW[Modulated Carrier Wave] ICW [Interrupted Carrier Wave] generally associated with Morse transmission; AM [Amplitude Modulation], LSB [Lower Sideband], USB[Upper Sideband] generally associated with Voice transmission.

Languages used

The ident of a station generally states the language in use, E [English], G[German] S [Slavic], V[All other languages].

Non voice stations

M [Morse and TTY] SK [Digital modes] X [Other modes]

Ideally we would like to see logs offered in our standard format allowing the editorial staff to process the results quickly rather than having to manually re-format. Anyone submitting logs should refrain from using their own abbreviations or shortening our abbreviations eg. Su Mo Tu etc.

See a correct example below which is now self explanatory:

V02a 5883kHz 0700z 06/06[A63752 57781 31521] Fair QRN2 end uk PLdn SAT

And the incorrect version:

V2a 5883k 07:00 06/06/2009 A/63752-57781-31521 S3 PLdn SA

Additional Info:

Own station idents should not be used.

When an unidentifiable station is submitted please supply the obvious details:

Freq, Time start and end, Date, Message content, particularly preamble and message content and ending. Language details are helpful, particularly any strange pronunciations.

Other details about stations can be found in the ENIGMA Control List available from Group files or sent when you joined.

NUMBER SYSTEMS

European Numbers sytems:

English	zero	one	two	three	four	five	six	seven	eight	nine
Bulgarian	nul	edín	dva	tri	chétiri	pet	shest	sédem	ósem	dévet
French	zero	un	deux	trois	quatre	cinq	six	sept	huit	neuf
German^	null	eins	zwei	drei	vier	fünf	sechs	sieben	acht	neun
Spanish	cero	uno	dos	tres	cuatro	cinco	seis	siete	ocho	nueve
Czech	nula	jeden	dva	tr^i	chtyr^i	pêt	shest	sedm	osm	devêt
Polish	zero	jeden	dwa	trzy	cztery	pie,c'	szes'c'	siedem	osiem	dziewie,c'
Romanian	zero	unu	doi	trei	patru	cinci	s,ase	s,apte	opt	nouâ
Slovak*	nula	jeden	dva	tri	shtyri	pät'	shest'	sedem	osem	devät'
* West	nula	jeden	dva	try	shtyry	pet	shest	sedem	ossem	devat
* East	nula	jeden	dva	tri	shtyri	pejc	shesc	shedzem	osem	dzevec
Serbo-Croat	nula	jèdan	dvâ	trî	chètiri	pêt	shêst	sëdam	ösam	dëve:t
Slovene	nula	ena	dva	tri	shtiri	pet	shest	sedem	osem	devet
Russian	null	odín	dva	tri	chety're	pyat'	shest'	sem'	vósem'	dévyat'

[^] Some German numerals have a radio accent and totally in keeping with German armed forces The numbers in question are:

2 ZWEI pronounced as TSWO

5 FUNF pronounced as FUNUF, poss hrd as a fast TUNIS

9 NEUN pronounced by some as NEUGEN

A peculiar pronunciation of three DREI, has crept into G11 transmissions, heard as 'ZYNCE' the 'Y' as in eye.

Numeral Systems used on selected Slavic Stations [those discontinued in italics]

	Actual Polish[S11]	S11a Cherta	S11 Kreska	S10d	S17c	
0	zero	nul	zero	Nula*	Nula*	
1	jedynka	adinka	yezinka	Jeden^	Jeden^	Notes on Numeral Systems used on selected Slavic Stations:
2	dwójka	dvoyka	dvonta	dva	dva	* Nula heard as 'nul'
3	trójka	troyka	troika	tri '	tri'	A. T. J. J. (37. 1)
4	cztery	chetyorka	chidiri	shytri	shytri	^ Jeden heard as 'Yedinar'
5	pi¹tka	petyorka	peyonta	pyet	pyet	'Tri heard as 'she'
6	szeϾ	shest	shes	shest	shest	~ Osoom often heard as 'bossoom' or 'Vossoom.'
7	siedem	syem	sedm	sedoom	sedoom	
8	osiem	vosyem	osem	Osoom~	Osoom~	
9	dziewie,c'	dyevyet	prunka	devyet	devyet	

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
	•	١	۲	٣	٤	٥	٦	٧	٨	٩

Chinese Number System:

[Particular attn to Yi/Yao pse].

0	Ling	Zero
1	Yi/Yao	One (It appears there is a radio version of Yao. On the telephone it is pronounced Yi; also heard in V16)
2	Er	Two
3	San	Three
4	Si	Four (The number four in Chinese is always unlucky, because it sounds the same as the word for death which is also pronounced 'Si' but with a different tone).
5	Wu	Five
6	Liu	Six
7	Qi	Seven
8	Ba	Eight
9	Jiu	Nine

Wan

One Thousand

Chinese numeral construction:

Ten

For example:

Shi

San Three

San Shi Thirty. In English they are saying Three and Ten.

San Shi Jiu Thirty Nine. In English they are saying Three, Ten and Nine.

San Bai Three Hundred. In English they are saying Three and One Hundred.

Ba

One Hundred

San Wan Three Thousand. In English they are saying Three and One Thousand.

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID,	Oct kHz, ID,
					Х	Х	0030/0130		E06	01A	6874/ 5179 759	6797/ 5122 759
	Х		х				0340/0400/0420		M12	01B	5829/ 6929/ 8029 890	5872/ 6772/ 7672 876
			Х				0430/0450/0510		E07A	01B	7437/ 8137/ 9137 411	5146/ 5846/ 6846 188
Х							0450		E11	03	6304 416/00	6304 416/00
			Х	Х			0500/0600		E06		12210/14830 354	/16320 186, search
		Х					0530/0540		S06S		10835/12170 153	10835/12170 153
	Х						0600/0610		S06S	01A	14080/12355 438	14080/12355 438
				Х			0600/0610		S06S	01A	6340/ 5470 934	6340/ 5470 934
				Х			0600/0610		S06S	01A	196	
	Х		Х				0645		E11	03	10800 517/00	10800 517/00
						Х	0700		M01	14	6508 463	6508 463
				Х			0700/0710		S06S	01A		7795/ 8695 196
	Х						0700/0710(15)		S06S	01A	5760/ 6930 374	5760/ 6930 374
	Х			Х			0710		E11	03	10221 633/00	10221 633/00
		Х					0730/0740		S06S	01A	7335/11830 745	7335/11830 745
	Х		Х				0745		E11	03	14575 335/00	14575 335/00
			Х				0800		E17Z	01A	14260/12930 674	14260/12930 674
Х							0800		G06	01A	6774 215	6774 215
	Х						0800/0810		S06S	01A	11635/10420 352	11635/10420 352
Х			Х				0820		E11	03	6814 438/00	6814 438/00
		Х					0820/0830		S06S	01A	7605/ 9255 471	7605/ 9255 471
Х			Х				0830		E11	03	10690 649/00	10690 649/00
			Х				0840/0850		S06S	01A	9480/11040 328	9480/11040 328
х		Х					0900		E11	03	9399 534/00	9399 534/00
			Х				0900/0910		S06S	01A	12952/13565 167	12952/13565 167
	Х			Х			0915		S11A	03	7317 484/00	7317 484/00
			Х				0930/0940		S06S	01A	8650/ 7385 314	8650/ 7385 314
				х			0930/0940		S06S	01A	12140/13515 516, search	12140/13515 516, search
	Х						1000/1010		S06S	01A	6410/ 7340 893	6410/ 7340 893
		Х					1000/1010		S06S	01A	13365/14505 729	13365/14505 729
Х			Х				1015		S11A	03	16112 475/00	16112 475/00

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID,	Oct kHz, ID,
	Х			Х			1020		S11A	03	9960 426/00	9960 426/00
		Х			Х		1020		S11A	03	5815 221/00	5815 221/00
	Х						1045		E11	03	13424 576/00	13424 576/00
	Х	Х					1045		E11	03	7449 469/00	7449 469/00
				Х			1110		E11	03	13375 95#/00	13375 95#/00
	х	Х	Х				1115		M03	03	9150 272/00 (Tue) & 650/00 (Wed/Thu)	9150 272/00 (Tue) & 650/00 (Wed/Thu)
						Х	1120/1220	2	E06	01A	7471/ 154, search	7471/ 154, search
		Х	Х			Х	1155		E11	03	15915 718/00	15915 718/00
Х							1200/1210		S06S	01A	9145/11460 831	9145/11460 831
		Х					1200/1210		S06S	01A	7120/ 6415 481	7120/ 6415 481
			Х				1200/1210		S06S	01A	12415/14212 425	12415/14212 425
					Х		1200/1210	1	S06S	01A	10350/ 8520 254	10350/ 8520 254
		Х					1230/1240		S06S	01A	7620/ 8105 967	7620/ 8105 967
Х							1300/1320/1340		M12	01B	search	search
			Х			Х	1320		M03	03	9150 437/00	9150 437/00
				Х	Х		1325		G11	03	5815 299/00	5815 299/00
					Х		1500		M01	14	6261 463	6261 463
		Х					1500/1520/1540		M12	01B	13524/11524/ 344	9223/ 8193/ 7463 839
	Х						1500/1510		S06S	01A	6464/ 7245 537	6464/ 7245 537
				Х			1515		M01B	14	5810 158	5810 158
			Х				1505		M01B	14	5938 159	5938 159
	Х			Х	Х		1535		M03	03	6977 798/00	6977 798/00
Х						Х	1540		E11	03	15915 228/00	15915 228/00
					Х		1600 (1605)		S06	01A	8162/ 7612 134	8162/ 7612 134
Х							1600/1610		S06S	01A	8040/ 6830 176	8040/ 6830 176
		Х					1600/1620/1640		M12	01B	12162/11561/10711 546	12162/11561/10711 546
				Х			1600/1620/1640		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
Х							1700	1/2	G06	01A	4639 154	4639 154
Х			Х				1700/1720/1740		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
		Х					1700/1720/1740		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID,	Oct kHz, ID,
		Х				Х	1700/1720/1740		E07	01B	12223/11062/10116 201	5412 892
			Х				1700/1720/1740		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
				x			1710		E11	03	5194 95#/00	5194 95#/00
			Х				1730		E11	03	9371 416/00	9371 416/00
	Х					х	1755		G11	03	5815 270/00	5815 270/00
Х							1800	1/2	G06	01A	5378 154	5378 154
	Х		Х				1800		M01	14	5474 463	5474 463
	Х						1800		S06	01A		5890 286
Х							1800/1820/1840		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
			Х	Х			1800/1820/1840		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
	Х		Х				1802		M45	14	4555, 4955 555	4555, 4955 555
Х							1810		M01B	14	3535, 4590 420	3535, 4590 420
Х							1815/1915	2/4	S06	01A	search	search
	Х						1820		M14	01A	5945 346	5945 346
			Х				1830	2/4	G06	01A	5935 579	5935 579
	Х						1830/1850/1910		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
		Х					1830/1850/1910		M12	01B	11435/10598/ 9327 938	11435/10598/ 9327 938
			Х				1832		M01B	14	3510, 4605 201	3510, 4605 201
	Х		Х				1842		S21	14	4454, 4854 454	4454, 4854 454
Х			Х				1900 (1905)		S06	01A	5784/ 5127 349	5784/ 5127 349
х		Х					1900/1920/1940		E07	01B	12108/10708/ 9208 172	10243/ 9243/ 7943 229
Х			Х				1900/1920/1940		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
	Х		Х				1900/1920/1940		XPA	01B	11576/10476/ 9276	9362/ 8062/ 7462
				Х	Х		1900/2000	1/3	M14	01A	9060/ 8180 724, search	
					Х		1900/2000	1/3	S06	01A	5317/ 4492 416	5317/ 4492 416
					Х		1900/2000	1/3	S06	01A	6942/ 5923 314	
				Х			1902		M01B	14	3625, 4440 153	3625, 4440 153
Х							1915		M01B	14	3644, 4454 771	3644, 4454 771
		Х					1920/2020	2	E06	01A	4615/ 3704 154, search	4615/ 3704 154, search
		Х					1920	2/4	M14	01A	5464 537	5464 537
				Х			1930	2/4	G06	01A	5442 947	5442 947
					Х		1930 (1935)		S06	01A	6788/ 4958 843	6788/ 4958 843

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID,	Oct kHz, ID,
			Х				1942		M01B	14	3715, 4570 477	3715, 4570 477
	x						2000		E11C	03	6869 757/0000/00	6869 757/0000/00
				x			2000		E11	03	6869 576/00	6869 576/00
				Х		Х	2000		G11	03	6433 262/00	6433 262/00

M01 M01b M45 Frequency Schedule Compare with current logs

M01 Sunday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	197	197	463	463	025	025	025	025	463	463	197	197
0700	5464	5464	6508	6508	6780	6780	6780	6780	6508	6508	5464	5464

M01b Monday

					14101	ID MIOI	luay					
	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID				420	364	364	364	364	420	420		
1810				3535	5125	5125	5125	5125	3535	3535		
//				4590	5735	5735	5735	5735	4590	4590		
ID	853	853	420								853	853
1910	2435	2435	3535								2435	2435
//	3520	3520	4590								3520	3520
ID				771	858	858	858	858	771	771		
1915				3644	5150	5150	5150	5150	3644	3644		
//				4454	5475	5475	5475	5475	4454	4454		
ID				298	729	729	729	729	298	298		
2010				4991	5815	5815	5815	5815	4991	4991		
//				5336	6769	6769	6769	6769	5336	5336		
ID	375	375	771								375	375
2015	2427	2427	3644								2427	2427
//	3205	3205	4454								3205	3205
ID	136	136	298								136	136
2110	4615	4615	4991								4615	4615
//	5065	5065	5336								5065	5065

M01 Tuesday/Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	197	197	463	463	025	025	025	025	463	463	197	197
1800	5320	5320	5474	5474	5280	5280	5280	5280	5474	5474	5320	5320
2000	4490	4490	5017	5017	4905	4905	4905	4905	5017	5017	4490	4490

M01b Thursday

					MIUI	b Thur	Suay					
	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	159	159	159	159	159	159	159	159	159	159	159	159
1505				5938	5938	5938	5938	5938	5938	5938		
1605	5938	5938	5938								5938	5938
ID				201	815	815	815	815	201	201		
1832				3510	5095	5095	5095	5095	3510	3510		
//				4605	5760	5760	5760	5760	4605	4605		
ID	910	910	201								910	910
1932	2466	2466	3510								2466	2466
//	3545	3545	4605								3545	3545
ID				477	936	936	936	936	477	477		
1942				3715	5064	5064	5064	5064	3715	3715		
//				4570	5805	5805	5805	5805	4570	4570		
ID				302	931	931	931	931	302	302		
2032				4905	5763	5763	5763	5763	4905	4905		
//				5736	5941	5941	5941	5941	5736	5736		
ID	382	382	477								382	382
2042	2485	2485	3715								2485	2485
//	3160	3160	4570								3160	3160
ID	514	514	302								514	514
2132	4603	4603	4905								4603	4603
//	4991	4991	5736								4991	4991

M01b Friday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	158	158	158	158	158	158	158	158	158	158	158	158
1515	xxxx	xxxx	xxxx	5810	5810	5810	5810	5810	5810	5810	xxxx	xxxx
1615	5810	5810	5810								5810	5810
ID										365	444	
1708										6365		
1808											6444	
ID				153	336	336	336	815	153	153		
1902				3625	5075	5075	5075	5075	3625	3625		
//				4440	5465	5465	5465	5465	4440	4440		
ID	866	866	153								866	866
2002	2653	2653	3625								2653	2653
//	3197	3197	4440								3197	3197
ID				582	467	467	467	467	582	582		
2010				3520	4895	4895	4895	4895	3520	3520		
//				4585	5340	5340	5340	5340	4585	4585		
ID				271	871	871	871	871	271	271		
2102				4766	5329	5329	5329	5329	4766	4766		
//				5443	5752	5752	5752	5752	5443	5433		
ID	610	610	582								610	610
2110	2405	2405	3520								2405	2405
//	3180	3180	4585								3180	3180
ID	419	419	271								419	419
2202	4508	4508	4766								4508	4508
//	4706	4706	5443								4706	4706

M01 Saturday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	197	197	463	463	025	025	025	025	463	463	197	197
1500	5810	5810	6261	6261	6434	6434	6434	6434	6261	6261	5810	5810

M45 Tuesday/Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	525	525	555	555	074	074	074	074	555	555	525	525
1702					5074	5074	5074	5074				
//					5474	5474	5474	5474				
1802	3525	3525	4555	4555					4555	4555	3525	3525
//	4025	4025	4955	4955					4955	4955	4025	4025

With a receiver set to CW mode you will hear two tones. The table above shows the lower tone. Add 2kHz for other tone. These tones are modulated allowing you to hear this in AM mode.

M01b is undergoing some changes and not all those listed are active. Frequencies not heard are in *italics* and shaded whilst the frequencies of those not heard for rest of year are also *italicised*

Grp No.

195

103 84 72 69 69 46

ء ک	1									1									Ţ				
Decode	Ney	634	000	794	7033	9300	8316	6915	4842	794	2538	$0\ 0\ 0$	4137	$0 \ 0 \ 0$	0 0 0	000	iii	261?	9824	4340	7621		
ID		828	850	944	546	257	257	257	124	944	463	828	886	868	851	911	257	124	124	257	124		
Freq	(кпх)	7843		11472	11/01	6904	6904	6904	8116	11092	88 <i>LS</i>		<i>1</i> 327				HN	8116^{A}	8116^	6904	8116		
Time	(010)	1910	0510	1340	1640	1740	1840	1940	1910	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1920	1840		
Freq	(KIIZ)	9243	7557	13472	11566^	7931	7931	7931	9264	13392	6802	9243	10598	6262	13569	9184	HN	HN	9264^	7931	9264		
Time	(210)	1850	0450	1320	1620	1720	1820	1920	1850	1520	1720	1850	1850	2120	2130	090	1720	1720	1820	1920	1820	-tored	
Freq	(KRZ)	10843	6857	13972	12162	9176	9176	9176	10343	14492	8047	10843	11435	9379	14869	7984	9176°	10343^{\wedge}	10343^{\wedge}	9176^	10343	Moni	
Time	(210)	1830	0430	1300	1600	1700	1800	1900	1830	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	Not	
Day /	Date	Sun 8	Mon 9						Tue 10	Wed 11						Thu 12					Fri 13	Sat 14	
Grp	NO.			68	73	70	99	81	55	68	41	195	52		167		79	80	72	53	77		
Decode	Ney	000	000	673	1327	4236	1569	1076	1733	673	2226	634	5713	$0 \ 0 \ 0$	189	$0 \ 0 \ 0$	4894	3865	2775	7811	9676	000	
ID		828	850	944	546	257	257	257	124	944	463	828	886	368	851	911	257	124	124	257	124	919	
Freq	(KTZ)			11472	10711	6904	6904	6904	8116	11092	5788	7843	9327		12179		6904	8116	8116	6904	8116		
Time	(010)	1910	0510	1340	1640	1740	1840	1940	1910	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1920	1840	1350	
Fred	(KRZ)	9243	7557	13472	11566^	7931	7931	7931	9264	13392	6802	9243	10598	6262	13569	9184	7931	9264	9264	7931	9264	12126	
Time	(010)	1850	0450	1320	1620	1720	1820	1920	1850	1520	1720	18 50	18 50	2120	2130	0650	1720	1720	1820	1920	1820	1330	
Fred	(KRZ)	10843	6857	13972	12162^	9176v	9176	9176	10343	14492	8047^	10843	11435	6226	14869	7984	9176^	10343	10343	9176	10343	13926^	
Time	(010)	1830	0430	1300	1600	1700	1800	1900	1830	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	1310	
Day /	Date	Sun 1	Mon 2						Tue 3	Wed 4						Thu 5					Fri 6	Sat 7	

103

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64

100

33 33

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91

Highlighted cell indicates new or changed loggings - - - Indicates no $3^{\rm rd}$ transmission sent as message 0 0 0

M12 Log2 Jul 2012

Brian - S.E. England

Grp No.	163		309	95	80	44	50	53	309	73	139	59				54	73	55	51	82	87		
Decode Key	366	000	232	3053	1929	5556	8996	4326	232	1997	928	5823	$0 \ 0 \ 0$	$0 \ 0 \ 0$	000	8670	3112	2068	6575	2668	258	000	
ID	828	850	944	546	257	257	257	124	944	463	828	886	398	851	911	257	124	124	257	124	919	851	
Freq (kHz)	7843		11472	10711	6904	6904	6904	8116	11092	5788	7843	9327			1	6904	8116	8116	6904	8116	10926		
Time (UTC)	1910	0510	1354*	1640	1740	1840	1940	1910	1554*	1740	1910	1910	2140	2150	0110	1740	1740	1840	1920	1840	1350	2150	
Freq (kHz)	9243	7557	13472	11566^	7931	7931	7931	9264	13392	6802	9243	10598	7979	13569	9184^	7931	9264	9264	7931	9264	12126	13569	
Time (UTC)	1850	0420	1327*	1620	1720	1820	1920	1850	1527*	1720	1850	1850	2120	2130	0890	1720	1720	1820	1920	1820	1330	2130	
Freq (kHz)	10843	6857	13972	12162	9176	9176	9176	10343	14492	8047^	10843	11435	9379	14869	7984^	9176	10343	10343	9176v	10343	13926	14869	
Time (UTC)	1830	0430	1300	1600	1700	1800	1900	1830	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	1310	2110	
Day / Date	Sun 22	Mon 23						Tue 24	Wed 25						Thu 26					Fri 27	Sat 28		
Grp No.			167	80	62	50	94	69	167	99	163	51	119			09	71	62	54	88			
Decode Key	000	$0 \ 0 \ 0$	810	3272	5693	1109	5188	3829	810	8462	366	2267	946	$0 \ 0 \ 0$	0 0 0	4960	5132	4698	2000	2566			
ID	828	850	944	546	257	257	257	124	944	463	828	886	398	851	911	257	124	124	257	124			
Freq (kHz)			11472	10711^	6904	6904^	6904	8116	11092	5788	7843	9327	6289		!	6904	8116	8116	6904	8116			
Time (UTC)	1910	0510	1340	1640	1740	1840	1940	1910	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1920	1840			
Freq (kHz)	9243	7557	13472	11566^	7931^	7931^	7931^	9264	13392	6802	9243	10598	6262	13569	9184^	7931^	9264^	9264	7931	9264			
Time (UTC)	1850	0450	1320	1620	1720	1820	1920	1850	1520	1720	1850	1850	2120	2130	0 9 0	1720	1720	1820	1920	1820	-tored		
Freq (kHz)	10843	6857	13972	12162^	9176v	9176^	v9116v	10343^	14492	8047	10843	11435	6286	14869	HN	v9/16	10343	10343	v9/16	10343	Moni		
Time (UTC)	1830	0430	1300	1600	1700	1800	1900	1830	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	Not		
Day / Date	Sun 15	Mon 16						Tue 17	Wed 18						Thu 19					Fri 20	Sat 21		

* Times of transmissions offset due to length of message

Highlighted cell indicates new or changed loggings

--- Indicates no 3^{rd} transmission sent as message $0\ 0\ 0$

NF Not Found NH Not Heard Weak reception

M12 Log1 Aug 2012

Grp No.

Brian - S.E. England

 50

_					` '		` '								` '									-
Decode	Key	154	9376	2959	569	000	665	$0 \ 0 \ 0$	7161	3738	3782	4829	9299	$0 \ 0 \ 0$	992	569	$0\ 0\ 0$	181	7972	1946	7834	3144	2041	
II)		166	463	886	913	198	314	405	257	124	124	257	124	451	314	913	962	991	546	257	257	257	124	
Fred	(kHz)	10818	5788	9327	10384		10469		6904	8116	8116	6904	8116		10469	10384		12164	10711	6904	6904	6904	8116	
Time	(UTC)	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1940	1840	13 50	2150	1910	0510	1340	1640	1740	1840	1940	1910	
Freq	(kHz)	12218	6802	10598	12184	6923	12179	8184	7931	9264	9264	7931	9264	13568	12179	12184	6992	13972	11566^{\wedge}	7931	7931	7931	9264	
Time	(UTC)	1520	1720	1850	1850	2120	2130	0650	1720	1720	1820	1920	1820	1330	2130	1850	0450	1320	1620	1720	1820	1920	1850	
Freq	(kHz)	13918	8047	11435	13984	8123	13369	7484	9176	10343	10343	9116	10343	14468^{\wedge}	13369^	13984	5792	14964	12162	9176	9176	9176	10343	
Time	(UTC)	1500	1700	1830	1830	2100	2110	0890	1700	1700	1800	1900	1800	1310	2110	1830	0430	1300	1600	1700	1800	1900	1830	
Day /	Date	Wed 8						Thu 9					Fri 10	Sat 11		Sun 12	Mon 13						Tue 14	
Grp	No.	93	79	69	85				47	77	92	9	85			85		185	81	9/	46	09	70	
Decode	Key	724	6157	702	210	$0 \ 0 \ 0$	$0 \ 0 \ 0$	$0 \ 0 \ 0$	2951	1047	5137	3357	2287	$0 \ 0 \ 0$	$0 \ 0 \ 0$	210	$0 \ 0 \ 0$	154	6225	9894	3979	1258	9488	
ID		166	463	886	913	198	314	402	257	124	124	257	124	451	314	913	962	991	546	257	257	257	124	
Freq	(kHz)	10818	5788	9327	10384				6904	8116	8116	6904	8116			10384		12164	10711	6904	6904	6904	8116	
Time	(UTC)	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1940	1840	1350	2150	1910	0510	1340	1640	1740	1840	1940	1910	
Freq	(kHz)	12218	6802	86501	12184	6923	12179	8184	1862	9264	9264	1862	9264	13568	12179	12184	6992	13972	11566	1862	1862	7931	9264	
Time	(UTC)	1520	1720	18 20	1850	2120	2130	090	1720	1720	1820	1920	1820	1330	2130	1850	0450	1320	1620	1720	1820	1920	1850	
Freq	(kHz)	13918	8047	11435	13984	8123	13369	7484^	_v 9/16	10343	10343	9/16	10343	14468^{\wedge}	13369^	13984	5792	14964	12162	v9/16	9116	9116	10343	
Time	(UTC)	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	1310	2110	1830	0430	1300	1600	1700	1800	1900	1830	
Day /	Date	Wed 1						Thu 2					Fri 3	Sat 4		Sun 5	Mon 6						Tue 7	

87

Highlighted cell indicates new or changed loggings - - - Indicates no $3^{\rm rd}$ transmission sent as message 0.00

Grp No.

Decode Key

ID

463 938 913 198 314

 $0 \ 0 \ 0$ $0 \ 0 \ 0$ $0 \ 0 \ 0$ 257 124 124 257

 $0 \ 0 \ 0$

7216

314

991 546 257 257 257

 $0 \ 0 \ 0$

Fred	(MILE)		5788	9327			10469	1	6904	8116	8116	6904	8116	12178	10469		1	12164	10711	6904	6904	6904	8116	
Time	(210)	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1940	1840	1350	2150		0510	1340	1640	1740	1840	1940	1910	
Freq	(MIIE)	12218	6802	10598	12184	6923	12179	8184	7931	9264	9264	7931	9264	13568	12179		6992	13972	11566^	7931	7931	7931	9264	
Time	(210)	1520	1720	1850	1850	2120	2130	0690	1720	1720	1820	1920	1820	1330	2130	-tored	0420	1320	1620	1720	1820	1920	1850	
Fred	(WIE)	13918	8047	11435	13984	8123	13369	7484^	9176	10343	10343	9116	10343	14468^	13369^	Moni	5792	14964	12162	9116	9116	9176	10343	
Time	(010)	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	1310	2110	Not	0430	1300	1600	1700	1800	1900	1830	
Day /	Date	Wed 22						Thu 23					Fri 24	Sat 25		Sun 26	Mon 27						Tue 28	
Grp		141	46	89					46	77	54	38	88						08	74	09	81	57	
Decode	INC	181	8535	1730	$0\ 0\ 0$	$0\ 0\ 0$	$0\ 0\ 0$	000	1757	2051	9731	8690	3168	$0\ 0\ 0$	000	000		$0\ 0\ 0$	8/99	3584	5969	4096	2433	
Œ		991	463	886	913	198	314	402	257	124	124	257	124	451	314	913		166	546	257	257	257	124	
Freq	(PITE)	10818	2788	9327				1 1	6904	8116	8116	6904	8116						10711	6904	6904	6904	8116	
Time	(010)	1540	1740	1910	1910	2140	2150	0710	1740	1740	1840	1940	1840	1350	2150	1910		1340	1640	1740	1840	1940	1910	
Fred	(MIIE)	12218	6802	10598	12184	6923	12179	8184	7931	9264	9264	7931	9264	13568	12179	12184		13972	11566	7931	7931	7931	9264	
Time	(210)	1520	1720	1850	1850	2120	2130	0650	1720	1720	1820	1920	1820	1330	2130	1850		1320	1620	1720	1820	1920	1850	
Fred	(MILE)	13918	8047	11435	13984	8123	13369	7484	9116	10343	10343	9116	10343	14468	13369^	13984		14964	12162	9176v	9116	9176	10343	
Time	(210)	1500	1700	1830	1830	2100	2110	0630	1700	1700	1800	1900	1800	1310	2110	1830		1300	1600	1700	1800	1900	1830	
Day /	Date	Wed 15						Thu 16					Fri 17	Sat 18		Sun 19		Mon 20					Tue 21	

Highlighted cell indicates new or changed loggings - - - Indicates no $3^{\rm rd}$ transmission sent as message 0 0 0

NF Not Found

Grp No.				77	09	09	219											
Decode Key	•			969	1082	4284	453	0 0 0	0 0 0									
a				991	463	938	913	198	314		402	257	124	124	257	124		
Freq (kHz)				10818	5788	9327	10384	1	1			6904	8116	8116	6904	8116		
Time (UTC)				1540	1740	1910	1910	2140	2150		0710	1740	1740	1840	1940	1840		
Freq (kHz)				12218	6802	10598	12184	6923	12179		8184	7931	9264	9264	7931	9264		
Time (UTC)				1520	1720	1850	1850	2120	2130		0650	1720	1720	1820	1920	1820		
Freq (kHz)				13918	8047	11435	13984	8123	13369		7484^	9176	10343	10343	9176	10343		
Time (UTC)				1500	1700	1830	1830	2100	2110		0630	1700	1700	1800	1900	1800		
Day / Date		Cont		Wed 29	Aug						Thu 30	Aug				Fri 31	Aug	
Grp No.				139				93	87	70	58	81			92			
Decode Key	•			876			000	724	4749	3394	5350	7777			316			
О				828			850	944	546	257	257	257			124			
Freq (kHz)				7843			1	11472	10711	6904	6904	6904			8116			
Time (UTC)				1910			0510	1354*	1640	1740	1840	1940			1910			
Freq (kHz)				9243			7557	13472	11566	7931	7931	7931			9264			
Time (UTC)				1850			0420	1327*	1620	1720	1820	1920			1850			
Freq (kHz)				10843			6857	13972	12162	9176^	9176^	9176			10343			
Time (UTC)				1830			0430	1300	1600	1700	1800	1900			1830			
						_												

Highlighted cell indicates new or changed loggings

--- Indicates no 3^{rd} transmission sent as message 0.00

^ Weak reception NH Not Heard

NF Not Found

Family 1A History and September predictions 28th August 2012

G		2012	2012	2012	2012	l				
Station		2012	2012	2012	2012	ID	ID	ID	ID	,
Day	time (utc)	June	July	August	September	June	July	Aug	Sept	week
G06 mon	08.00	6948	6948	6948	6774	215	215	215	215	every
G06 mon	17.00	5284	5284	5284	4639	154	154	154	154	1 & 2
G06 mon	18.00	4896	4896	4896	5378	154	154	154	154	1 & 2
S06 mon	19.00/05	7982/6984	7982/6984	7982/6984	5784/5127	349	349	349	349	every
S06 mon	18.15	15910	15mhz?	15805		832	376	260		2 & 4
S06 mon	19.15	13585	13505	13380		832	376	260		2 & 4
M14 tues	07.00	9085	9085	9085	8120	576	576	576	362	2
M14 tues	08.00	9395	9395	9395	7395	576	576	576	362	2
S06 tues	08.30		7043				427			3
M14 tues	18.20	6856	6856	6856	5947	163	163	163	346	2 & 4
M14 wed	19.20	5932	5938	5938	5463	417	417	417	537	2 & 4
E06 wed	19.20	5769	5769	5769	4615	154	154	154	154	2
E06 wed	20.20	4783	4783	4783	3704	154	154	154	154	2
E06 thur	05.00	14710	14580	13930	12210	328	679	210	354	every
E06 thur	06.00	16240	16090	15890	14830	328	679	210	354	every
S06 thur	08.30			16327		842	842	842	842	every
S06 thur	09.30			13875		842	842	842	842	every
G06 thur	18.30	6887	6887	6887	5934	842	842	842	579	2 & 4
S06 thur	19.00/05	7982/6984	7982/6984	7982/6984	5784/5127	349	349	349	349	every
E06 thur	20.30	5948	5948	5948	5186	724	724	724	891	1 & 3
M14 fri	18.00				8193	269	269	269	269	1st
G06 fri	19.30	5943	5943	5943	5442	218	218	218	947	2 & 4
E06 fri	21.30	5731	5731	5731	5197	315	315	315	634	1 & 3
S06 sat	16.00/05	8157/6983	8157/6983	8157/6983	8162/7612	134	134	134	134	every
S06 sat	19.00	11437	11438	11438	6942	314	314	314	314	1 & 3
S06 sat	19.00	7847	7847	7847	5317	416	416	416	416	1 & 3
S06 sat	19.30/35	7884/6783	7884/6783	7884/6783	6788/4958	843	843	843	843	every
S06 sat	20.00	6916	6916	6916	4492	416	416	416	416	1 & 3
S06 sat	20.00	9432	9432	9432	5923	314	314	314	314	every
E06 sun	11.20	8025	8025	8025	7471	154	154	154	154	Wed R
E06 sun	12.20	7482	7482	7482	6 mHz ?	154	154	154	154	Wed R

Sat S06 1600/1930 repeats messages on Weds 2000 and 1930 respectively

WED R = repeat of 2nd Weds NRH = Nil required heard

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

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
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

Saturday

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
0800				12218	12177	13373	12173	12177				
0820				13418	13477	14373	13973	13477				
0840				14418	14877	15873	14873	14877				
0900		11053	11133									
0920		12153	12133									
0940		13553	13433									

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	10504	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. $6774\ 5836\ 4893=788$

RED indicates E07a (usb mode) with serial number

Mon	Tue Wed	Thu	Fri	Sat	UTC	wk	Stn	Fam	Jul kHz, ID,	Aug kHz, ID,	Sep kHz, ID,	Oct kHz, ID,	General Remarks
х					0450		E11	03	10800 416/00	10800 416/00	6304 416/00	6304 416/00	since 02/10, last log 06/12
	х	х			0645		E11	03	13424 517/00	13424 517/00	10800 517/00	10800 517/00	since 07/09, last log 06/12
	х		х		0710		E11	03	14753 633/00	14753 633/00	10221 633/00	10221 633/00	since 02/11, last log 08/12
	х	х			0745		E11	03	15632	15632	14575 335/00	14575 335/00	since 10/11, last log 08/12
х		х			0820		E11	03	335/00 6280	335/00 6280	6814	6814	since 10/09, last log 08/12
x		x			0830		E11	03	438/00 12924	438/00 12924	438/00 10690	438/00 10690	since 01/10, last log 07/12
x	x	+			0900		E11	03	649/00 13427	649/00 13427	9399	649/00 9399	since 10/09, last log 08/12
Ĥ	x	-	x		0915		S11A	03	534/00 8530	534/00 8530	534/00 7317	534/00 7317	since 01/10, last log 08/12
.,	^	x	Ĥ		1015		S11A	03	484/00 16530	484/00 16530	484/00 16112	484/00 16112	since 04/10, last log 08/12
х		×							475/00 11581	475/00 11581	475/00 9960	475/00 9960	-
Н	х		х		1020		S11A	03	426/00 5815	426/00 5815	426/00 5815	426/00 5815	since 02/10, last log 08/12
Н	х			x	1020		S11A	03	221/00	221/00	221/00	221/00	since 01/09, last log 08/12
	х				1045		E11	03	16125 576/00	16125 576/00	13424 576/00	13424 576/00	since 01/12, last log 08/12
	х				1045		E11	03	9610 469/00	9610 469/00	7449 469/00	7449 469/00	since 03/10, last log 08/12
			х		1110		E11	03	16388 95#/00	16388 95#/00	13375 95#/00	13375 95#/00	since 12/11, last log 08/12
	x x	×			1115		M03	03	7837 272/00 (Tue) & 650/00 (Wed/Thu)	7837 272/00 (Tue) & 650/00 (Wed/Thu)	9150 272/00 (Tue) & 650/00 (Wed/Thu)	9150 272/00 (Tue) & 650/00 (Wed/Thu)	since 10/09, last log 05/12
	х	×		1	1155		E11	03	16335 718/00	16335 718/00	15915 718/00	15915 718/00	since 04/11, last log 08/12
		х		2	1320		M03	03	7837 437/00	7837 437/00	9150 437/00	9150 437/00	since 02/11, last log 07/12
			х	x	1325		G11	03	5815 299/00	5815 299/00	5815 299/00	5815 299/00	since 03/10, last log 08/12
	х		х	x	1535		M03	03	6524 798/00	6524 798/00	6977 798/00	6977 798/00	since 11/10, last log 08/12
х				2	1540		E11	03	16335 228/00	16335 228/00	15915 228/00	15915 228/00	since 03/11, last log 08/12
			x		1710		E11	03	10487 95#/00	10487 95#/00	5194 95#/00	5194 95#/00	since 11/11, last log 07/12
		х			1730		E11	03	8088 416/00	8088 416/00	9371 416/00	9371 416/00	since 03/10, last log 08/12
	х			1	x 1755		G11	03	5815 270/00	5815 270/00	5815 270/00	5815 270/00	since 02/10, last log 08/12
	×				2000		E11C	03	8102 757/0000/00	8102 757/0000/00	6869 757/0000/00	6869 757/0000/00	since 12/11, last log 08/12
			×		2000		E11	03	9150 576/00	9150 576/00	6869 576/00	6869 576/00	since 03/12, last log 08/12
			х	2	2000		G11	03	3815 262/00	3815 262/00	6433 262/00	6433 262/00	since 01/11, last log 08/12

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Mon	Tue Wed	Thu	Fri	Sat	UTC	wk	Stn	Fam	Jul kHz, ID,	Aug kHz, ID,	Sep kHz, ID,	Oct kHz, ID,	General Remarks
х					0800		G06	01A	6948 215	6948 215	6774 215	6774 215	since 07/10, last log 08/12
х					1700	1/2	G06	01A	5284 154	5284 154	4639 154	4639 154	since 04/10, last log 08/12 yearly changing id
х					1800	1/2	G06	01A	4896 154	4896 154	5378 154	5378 154	since 05/09, last log 08/12 yearly changing id
		x			1830	2/4	G06	01A	6887 842	6887 842	5935 579	5935 579	since 05/01, last log 08/12
			х		1930	2/4	G06	01A	5943	5943	5442	5442	since 04/01, last log 08/12

G06 27.08.2012

Day	time (utc)	jan feb nov dec	mar apr sep oct	may jun jul aug	ID]
Mon	07.00	J	<u> </u>	8221	371	1 hour later
1,1011	07.10			9353	371	Oct to March
Mon	12.00	8420	9145	10230	831	1
1,1011	12.10	10635	11460	12165	831	
Tues	06.00	10000	14080	16735	438	1
1 405	06.10		12355	15230	438	
Tues	07.00	5250	5760	5430	374	1
1 405	07.15	6320	6930	6780	374	
Tues	08.00	10265 / ?	11635	14373	352	1
1 405	08.10	9135 / 12330	10420	12935	352	
Tues	10.00	6440	6410	12,00	893	1
rues	10.10	5660	7340		893	
Tues	12.30	5810	4 mhz?	7650	278	†
rues	12.40	6770	5805	6125	278	
Tues	15.00	5070	6464	6666	537	1
rues	15.10	6337	7242	7744	537	
Weds	05.30	9435	10835/10285	11435	153	1
Weds	05.40	11075	12170/11405	12650	153	
Weds	07.30	7030	7120	7765	481	1
weds	07.30	6305	6415	6815	481	
Weds	08.00	0303	0413	12110	745	1 hour later
Weds	08.10			14977	745	Oct to March
Weds	08.10	6880	7605	6755	471	Oct to March
weds	08.20	7840	9255	5835	471	
Weds	08.40	9260	9480	10120	328	†
weds	08.50	11415	11040	9670	328	
Weds	10.00	12365	13365	14580	729	†
Weds	10.00	14280	14505	16020	729	
Weds	12.30	4580	7620	7545	967	1
Weds	12.30	6420	8105	8220	967	
Thurs	08.00	11170	14260	16780	674	1
E17z	08.10	9820	12930	12850	674	
Thurs	09.00	12952	12952	12952	167	1
Tituts	09.10	13565	13565	13565	167	
Thurs	09.30	7865	8650	9255	314	1
Tituts	09.40	5310	7385	7630	314	
Thurs	12.00	12155	12415	12155	425	†
Tituis	12.10	10920	14212	14535	425	
Thurs	14.00	5320 / 5410	5410	5320 ?	624	1
Titulo	14.10	4845 / 6770	6770	4845 ?	624	
Fri	06.00	5460	6340	8720	934	1
	06.10	7070	5470	10415	934	
Fri	06.00	7150	7795	7845	196	1 hour later
	06.10	8215	8695	9125	196	Oct to March
Fri	09.30	11780	12140	10290	516	1
	09.40	12570	13515	9655	516	
Sat	12.00	8680	10350	12460	254	Only
	12.10	8260	8520	10250	254	week 1
			.			」 ··· •

Status of ID 418 and 872 are unknown

XPA Polytones

July 2012

XPA b [N	IFSK-20 Russian Inte	XPA b [MFSK-20 Russian Intelligence Multitone System] 10bd	XPA c	XPA c [MFSK-20 Russian Intelligence Multitone System] 10 bd	ne System] 10 bd	XPA e [N	XPA e [MFSK-20 Russian Intelligence Multitone System] 10 bd	ystem] 10 bd
1. 0440z:	9287kHz 2. 0500z: 1	1. 0440z: 9287kHz 2. 0500z: 10487kHz 3. 0520z: 11487kHz	1.0600z	1. 0600z 11409кНz 2. 0620z: 13509кНz 3. 0640z: 14609кНz)z: 14609kHz	1.1730z	1. 1730z 10943kHz 2. 1750z: 10243kHz 3. 1810z: 9243kHz	: 9243kHz
ID244	Mode: USB	[Tue/Thu]	ID456	Mode: USB [Wed/Sat]		<u>ID922</u>	Mode: USB [Tue/Thu]	
	ID/msg/serial no/gc/dk/end grp	/dk/end grp		ID/msg/serial no/gc/dk/end grp			ID/msg/serial no/gc/dk/end grp	
03Tue	NRH		04Wed	456 000 09832 00001 00000 10140	[2m26s]	03Tue	922 000	[2m26s]
05Thu	NRH		07Sat	456 000 05195 00001 00000 10140	[2m26s]	05Thu	922 000 06532 00001 00000 10140	[2m26s]
10Tue	NRH		11Wed	456 000 05195 00001 00000 10140	[2m26s] BR	10Tue	922 1 00679 00267 78232 32486	BR
12Thu	NRH		14Sat	456 000 05195 00001 00000 10140	[2m26s] BR	12Thu	922 1 00679 00267 78232 32486	BR
17Tue	NRH		18Wed	456 000 07375 00001 00000 10140	[2m26s]	17Tue	Too weak for process	
19Thu	NRH		21Sat	456 000 07375 00001 00000 10140	[2m26s]	19Thu	922 000 02056 00001 00000 10140	[2m26s]
24Tue	NRH		25Wed	456 000 07376 00001 00000 10140	[2m26s]	24Tue	922 1 00663 00191 68691 56062	[4m25s]
26Thu	NRH		28Sat	456 000 07376 00001 00000 10140	[2m26s]	26Thu	922 1 00663 00191 68691 56062	[4m25s]
31Tue	NRH					31Tue	922 000 08642 00001 00000 10140	[2m26s]

XPA b Morning 0440z Schedule

NRH since 12th June, 2012

XPA c Morning 0600z Schedule

Strong at start of schedule, remaining so throughout life of schedule.

XPA e Evening 1730z schedule

Matching strengths of 2011, this schedule weak and noisy to start. Towards end of month strengths lifted slightly with odd strong transmissions

XPA b []	XPA b [MFSK-20 Russian Intelligence Multitone System] 10bd	XPA c	IMFSK-20 Russian Intelligence Multitone System 10 bd	tem] 10 bd	XPA e [M	XPA e [MFSK-20 Russian Intelligence Multitone System] 10 bd	ъ
1. 0440z:	1. 0440z: 8034kHz 2. 0500z: 9234kHz 3. 0520z: 10834kHz	1. 0600z 1	10868kHz 2. 0620z: 12168kHz 3. 0640z: 13368kHz	368kHz	1. 1730z 1	1. 1730z 12187kHz 2. 1750z: 10787kHz 3. 1810z: 9387kHz	
ID828	Mode: USB [Tue/Thu]	ID813	Mode: USB [Wed/Sat]		ID173	Mode: USB [Tue/Thu]	
	ID/msg/serial no/gc/dk/end grp		ID/msg/serial no/gc/dk/end grp			ID/msg/serial no/gc/dk/end grp	
02Thu	NRH	01Wed	Not found		02Thu	Too weak for process	
07Tue	NRH	04Sat	813 1 00669 00147 46601 12147	[3m57s] BR	07Tue	173 1 00588 00225 40675 11555 [4m45s]	
09Thu	NRH	08Wed	813 1 00569 00083 81255 15564	[3m16s]	09Thu	173 1 00588 00225 40675 11555 [4m45s]	
14Tue	NRH	11Sat	813 1 00569 00083 81255 15564	[3m16s]	14Tue	173 000 08624 00001 00000 10140 [2m26s]	
16Thu	NRH	15Wed	NRH		16Thu	173 000 07543 00001 00000 10140 [2m26s]	
21Tue	NRH	18Sat	813 000 01214 00001 00000 10140	[2m26s]	21Tue	173 000 07544 00001 00000 10140 [2m26s]	
23Thu	NRH	22Wed	813 1 00807 00181 59439 41050	[4m16s]	23Thu	173 000 07544 00001 00000 10140 [2m26s]	
28Tue	NRH	25Sat	813 1 00807 00181 59439 41050	[4m16s]	28Tue	173 1 00644 00179 05452 72360 [4m17s]	
30Thu	NRH	29Wed	813 1 00989 00315 13788 22066	[5m39s]	30Thu	173 1 00644 00179 05452 72360 [4m17s]	

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NRH since 12th June, 2012

Considered closed, this schedule will no longer appear in E2k papers.

XPA e Evening 1730z schedule

XPA c Morning 0600z Schedule

Fair to strong signals to start.

Changeable signals across this schdule; usually all useable.

SPECIAL MATTERS:

Operation Jallaa: 0

MESSAGES:

E: Thanks for our input from your hols!

RELEVANT WEBSITES

ENIGMA 2000 Website:

Frequency Details can be downloaded from: http://www.cvni.net/radio/

More Info on 'oddities' can be found on Brian of Sussex' excellent web pages: http://www.brogers.dsl.pipex.com/page2.html

Time zone information: http://www.timeanddate.com/library/abbreviations/timezones/

Encyclopedia of Espionage, Intelligence, and Security http://www.espionageinfo.com/

EyeSpyMag!

http://www.eyespymag.com

http://www.enigma2000.org.uk

