ENIGMA 2000 NEWSLETTER

http://www.enigma2000.org.uk

Antenna system that can be seen above the entrance to the Ribble Steam Railway Museum near Preston.

Used by the operators of GB5RSR more can be read about this in our follow on from Spectre's holiday monitoring account.

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http://www.enigma2000.org.uk

Editorial, Issue 73

The more observant of our members will notice that we have added our copyright statements to the cover and endpiece of the newsletter; this will continue. On the release of Issue 71 it became obvious that certain persons were waiting for our product to be posted to enable them to use our product and contributors intellectual property for their own means. The Group management were aware of this practice and over the monthsgathered enough knowledge to enable us to scupper the practice.

This matter was addressed directly with a member who stated he was able to negotiate for the particular group involved, but finding himself unwilling to give his actual name the negotiations stalled. Luckily, a complaint had been made elsewhere from within the Group and by another member of our management team and the stalled negotiations started again and with a more affable member.

Happily the negotiations for the use of our product were soon conducted in a businesslike and professional manner on both sides and a favourable agreement easily met. Prior to this second chance it was E2k's intention to ask for our product to be totally removed; however, the open and understanding manner from the other side meant that a totally satisfactory resolution to both sides was reached.

The copyright statements have been placed here for the convenience of others who may wish to use our product and not as a barbed reminder to those we have just reached resolution with. If you wish to use, please ask.

Before we look at the roundups yours truly received an email from tING, a member from Germany who attached an interesting piece of music. I challenged tING to the fact that he was trying to turn me on to an experimental music genre but his real reason for sending was the sound of G16 a few seconds from the start:

http://hsw.amarok-online.de/Masterbits-Dat-O-Rama.mp3

tING writes, "It's a sampling demo by a company called MASTERBITS who dealed with sounds for synthesizers and also sampling-collections for musicians playing sampling keyboards. I received a demo CD from Masterbits in the early 1990s and found the voice of BND (G16) in one of the tracks contained on the CD."

Thanks for sharing with us tING.

Whilst we mention music featuring Number Station output – and we don't do that every day – it's only fair that we remind you of the music samples likewise featuring Number Station output on Simon Mason's website:

http://www.simonmason.karoo.net/page30.html

To state the obvious, there's a whole host of other interesting stuff than you'd find elsewhere and on a site that has te best collection of Number Station artifacts and to which the name 'Shortwave Espionage' is an apt description.

Station Roundup.

Morse Round Up

M01 - Sent the same msg for both the 1800z & 2000z transmissions on Thu Oct 02. This is quite unusual, but not unknown. On Sun Oct 07 the station failed to appear on the regular freq of 6510z but was found to have sneaked up to 6710kHz. Looks like another of M01's little tricks.

M08a - A fair number of logs in Sept that tailed off for Oct. It is not known if this was due to conditions, station inactivity or simply lack of reports. M08a seems to be active across a wide range of freqs. On 25 Oct 'Frankenstorm' Hurricane Sandy made landfall in Cuba causing widespread devastation to the south-eastern parts of the island before moving off, it's force not having been slowed by the encounter.Graydogs reported transmitter problems with two transmissions from M08a on that day and no reports were received for 26 & 27 Oct.
However, on Sun 28 it was business as usual for the station when Graydogs reported the 5898kHz 0500z transmission. Both Graydogs and PLdn have reported the regular scheduled transmissions since.

M23 - Undoubtedly the winner of the 'Most Curious Station' award over the last two months. We have had four schedules over two sets of simulcast freqs with changing ID's, timings and periods of silence.
What we have learnt is that when the station is silent - but still active, it is continuously sending an hourly dash on one of the freqs in use. At the time of writing, the station was silent but still sending hourly dashes on 5345kHz.

M45 - As well as a few apparent technical problems, M45 seems to be getting confused over whether it should be sending M45 or S21 over its schedules. Some interchanging of msgs and modes noted, which does, though reinforce the connection between these two stations.

M51/51a - We've been monitoring this one closely, but there doesn't seem to anything 'Spooky' about the station's output (Excuse the seasonal pun!).
What is strange is why there is such a contrast between the M51a transmissions with regular daily schedules, ordered format and use of the FAV22 call-sign, and the M51 tranmsissions that appear randomly across the bands, at any time - often for hours, sending 5-ltr grp msgs with no call-sign or ID.

M89 - A flurry of activity in September seems to indicate that another Chinese naval excercise was under way. JPL has managed to find the two control freqs, identify their call-signs and those calls assigned toeach of these controls. This station has also been reported by listeners in Australia and Switzerland.
SEE Page 67, JPL's full analysis of the network served by M89

M97 - Has at last changed to a new msg. SD75 was with us from 23 Aug to 17 Oct, then on Thu 18 Oct we were rewarded with a new 50 grp msg - not unexpectedly it was numbered SD76, but with a change in the header from HT to TK. Reception in Europe is improving as the season changes and the station is now readable in the UK much of the time.

Voice Round Up

E06 For September the Thursday/Friday 2030/2130z training message has continued as expected, inaudible in parts of Britain due to a BC stn on the same freq FR and M8 managed a full intercept. The Friday offering transmitted in the clear on its initial sending.
The Friday 0500z started with a long 102 group message suggesting an active recipient.

E07 Started much as in the past, poor modulation, weak or non-existant audio to send null messages. The Sunday/Wednesday 1700z schedule started with an 84 group msg for agent '201' with strong, readable signals. Others, '172' and '358' may well be facing some redundancy if the null start is anything to go by!

E07a A surprise message with 46 groups started September's schedule off, research showed the message had been previously sent on 18 – 19 /07/2102
The Saturday schedule at 0800z +20+40M was opened by GD, no full message stated and no signal strength. PLdn missed the 0820z but caught the 0840z sending. Very poor conditions and weak signals, sadly two incomplete logs. The expected Sat transmission on 13/10 remained NRH at PLdn's QTH, feasibly because of the ongoing poor condx. Good strengths heard 20/10.
A message was sent at 2000z on 31/10. Sadly a repeat of the same message sent 12th and 13th September.

E17z Continued much as usual for September with it being heard in October too.

G06 Continues much as previously, a reminder for the older and longer serving members of Cold War days when the STASI and other German speaking stations sent their messages in harsh,tinny and threatening tones.

S06 et al The usual busy response from this station, short business like messages of varying strengths.

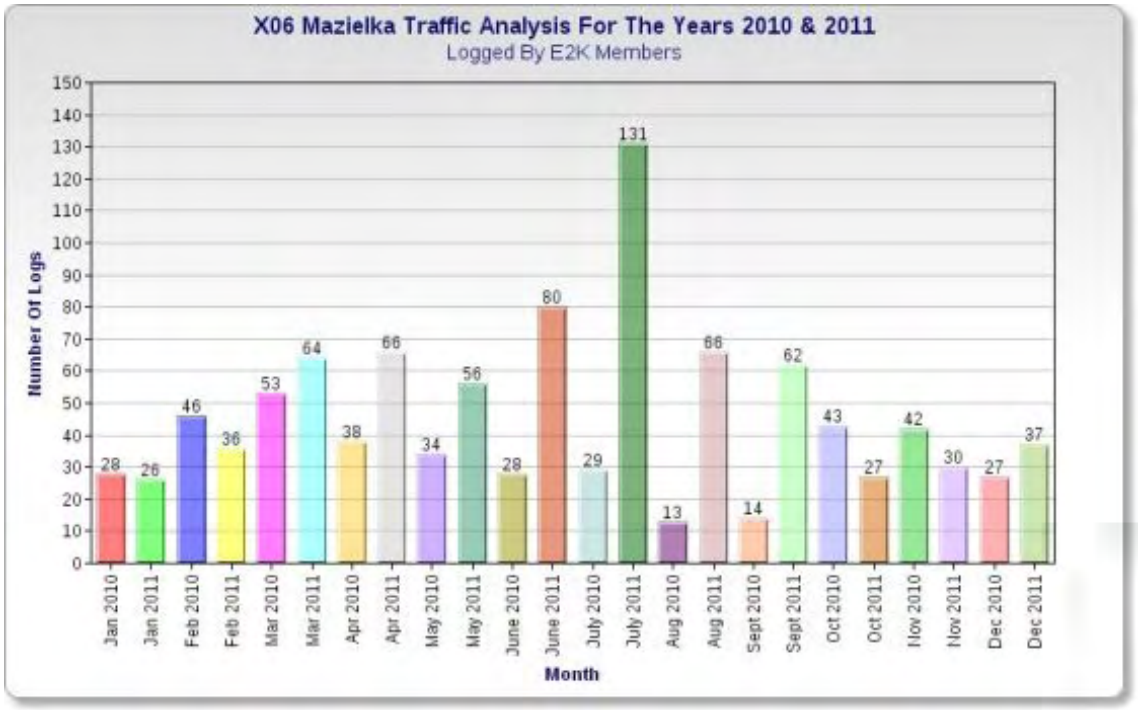
S21 Difficult to copy as ever on both frequencies

S28 Some activity seen here on this military station. The seconds tick and voice messages reminding yours truly of the Carrier Receivers that existed in police stations across Britain. They carried a seconds tick, sent on a 72kHz carrier along the telephone line, that upon an initial warning of a nuclear attack changed from the tick tick tick to a warble, followed by a voice message. There was one other function, that of setting off the air raid sirens, this carried out by the transmission of a pulsed tones 'G' [12.25Hz?] to energise a series of relays. The devices were little more than a loudspeaker with a volume control with the electronics mounted in a box, usually above the desk; very boring to listen to, but invaluable should the unthinkable occurred. Once, posted to the reserve room and in the early hours with little occurring I turned up the volume to hear the repetitive tick when a warble and voice message occurred. It was a test, but quite worrying as the Russian War machine had invaded Afghanistan, moving the hands of the nuclear clock to 1155. The authorities were certainly worried and lectures were given on what to do in the event of warfare starting. Very, very worrying. These repeaters had inventive names, WB400 and WB600 being two; another, initially seen by me at Kelvedon Hatch, a bunker almost intact, was the WB1400 which also appeared in the reactivated bunker at Manningtree.
Think of S28 and try this link: http://www.ringbell.co.uk/ukwmo/rec/TestMsg.mp3

Polytones XPA and XPA2 are being copied; XPA c with its expected strong signals and XPA e with its variable strength, variable noise offering slightly better with its move to a 1900z schedule. XPA2continues on its expected schedule and at good strength.

X06

Spectre kindly sent in a chart illustrating the activity of Mazeilka using readers' past contributions:



Many thanks Spectre

XM This reverse music has beeb heard again by Spectre, log below:
4638kHz2034z 03/09 [XM In Progress] 2044z Fair QRN3 QSB3 Spectre MON

Thanks to all contributors for their efforts.

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

Unidentified CW (UNID)

This log reported by Tony (ATC) from his QTH in Western Scotland.

5370	1927z	19 Oct	Unidentified CW	Short Zero	ATC FRI

(1927z) 6XI3 12 1320 126
118
0(- - - - -..)613 07525 83520 06635 07065
24455 76334 34016 01108 73160
31771 03871 85022 72830 19015
118

(1929z) 6XI3 QRV

(1931z) BK
AA
DGGNW

(1933z) 6XI3 OK
RPT AL QLN

Tony writes; *The first group is a weird one to me, it is 5 dashes, 2 dots as shown in the brackets The final 118 is a guess as an amateur was breaking through from 5374kHz.*

Most likely military with 6X13 being a strategic call, possibly Russian. There are several odd features. The odd character in grp01 - perhaps an error?, the use of a 5-ltr grp, unless this is also a call, and the term QLN which, if intended to be a Q-code, doesn't seem to appear on any lists. Possibly another operator error? QLH - Broadcast on simultaneous freqs could be a possibility.

M01/1 2 3 XIV MCW, hand (463 sched for Sep - Oct). Will change to M01/1 sched ID 197 for Nov - Feb. No repeat msgs sent.

September 2012:

5020	2000z	04 Sep	'463' 295 30 = =	76010...	...LG 80864 = =	Strong, slow, two corrected errors	BR/HFD	TUE
	2000z	06 Sep	'463' 618 30 = =	15299...	...LG 44001 = =	Fair, v.fast. Multiple errors	BR	THU
	2000z	11 Sep	'463' 178 30 = =	23010...	...LG 46605 = =	Strong, fast. Multiple errors	BR/tiNG	TUE
	2000z	18 Sep	'463' 044 30 = =	10993...	...LG 23469 = =	Fair / Good, fast. Multiple errors inc. 4f grps	BR/tiNG	TUE
	2000z	20 Sep	'463' 138 30 = =	14665...	...LG 51415 = =	Good,fast. Excellent CW	BR	THU
	2000z	25 Sep	'463' 271 30 = =	87270?..	...LG 75786 = =	Good, med-fast. Good CW no noted errors	BR	TUE
	2000z	27 Sep	'463' 770 30 = =	18535...	...LG 30173 = =	Strong, fast. Two noted errors	BR	THU
5475	1800z	04 Sep	'463' 488 30 = =	55407...	...LG 28300 = =	Strong, v.slow, multiple errors	BR/HFD	TUE
	1800z	06 Sep	'463' 391 30 = =	89343...	...LG 71000 = =	Strong, No call-up. Extremely fast, poor CW	BR	THU
	1800z	11 Sep	'463' 395 30 = =	37595...	...LG 89042 = =	Strong, fast. Excellent CW with no errors	BR/tiNG	TUE
	1800z	13 Sep	'463' 921 30 = =	05804...	...LG 47299 = =	V.strong, v.fast. Good CW	BR	THU
	1800z	18 Sep	'463' 550 30 = =	75213...	...LG 81752 = =	Good, slow. One noted error, good CW	BR	TUE
	1800z	20 Sep	'463' 274 30 = =	33925...	...LG 39854 = =	Good, fast. Corrected errors on grps09 & 28	BR	THU
	1800z	25 Sep	'463' 714 30 = =	85648 10331 66753... etc			RNGB	TUE
	1800z	27 Sep	'463' 098 30 = =	22264...	...LG 48951 = =	Good, fast. No errors	BR	THU
6260	1500z	01 Sep	'463' 415 30 = =	1 . 853...	...LG . . . . . = =	Weak with QSB, v.fast, poor copy	BR	SAT
	1500z	08 Sep	'463' 436 30 = =	06055...			HFD	SAT
	1500z	29 Sep	'463' 630 30 = =	32174...	...LG 20769 = =	Good, fast.	BR	SAT
6510	0700z	02 Sep	'463' 518 30 = =	95397...	...LG 97107 = =	Strong, fast. Good sending, error grp21	BR	SUN
	0700z	16 Sep	'463' 259 30 = =	26591...	...LG 15285 = =	Good, med-fast. Corrected error at start	BR	SUN
	0700z	23 Sep	'463' 577 30 = =	65773 69236 .....12104. Message sent quickly and competently - no errors.			HFD/RNGB	SUN
	0710z	30 Sep	'463' 754 30 = =	90373...	...LG 12314 = =	Weak, med-fast. Errors noted	BR	SUN

October 2012:

5020	2000z	02 Oct	'463' 189 30 = =	49248...	...LG 60216 = =	Strong, fast. Multiple errors. Msg as 1800z	BR/tiNG	TUE
	2000z	04 Oct	'463' 632 30 = =	[39836 58619 ... 54555 35339 = = 632 632 30 30 000] 2010z			tiNG	THU
	2000z	09 Oct	'463' 802 30 = =	[13941 41499 ... 94834 13020 = = 802 802 30 30 000] 2009z			tiNG	TUE
	2000z	11 Oct	'463' 153 30 = =	41954...	...LG 68469 = =	Good, fast. 5 or 55 added to many grps.	BR	THU
	2000z	16 Oct	'463' 080 30 = =	54269...	...LG 34064 = =	Fair, med-fast	BR	TUE
	2000z	18 Oct	'463' 219 30 = =	45163...	...LG 83517 = =	Weak / Fair, fast. With errors. Difficult copy	BR	THU
	2000z	23 Oct	'463' 804 30 = =	07007...	...LG 00301 = =	Strong, slow. Multiple errors	BR	TUE
	2000z	25 Oct	'463' 849 30 = =	33961...	...LG 61268 = =	Strong > Fair over msg, med-fast. Several errors	BR	THU
5475	1800z	02 Oct	'463' 189 30 = =	49248...	...LG 60216 = =	Strong, fast. Multiple errors. Msg as 2000z	BR/tiNG	TUE
	1800z	04 Oct	'463' 777 30 = =	42402...	...LG 02119 = =	Fair, fast. Heavy QSB, difficult copy	BR	THU
	1800z	11 Oct	'463' 038 30 = =	76961...	...LG . . . . . = =	Weak, fast. Poor copy	AB/BR	THU
	1800z	16 Oct	'463' 730 30 = =	55388...	...LG 15576 = =	Good, fast. Sent 8 grps, then re-sent from start	BR	TUE
	1800z	18 Oct	'463' 320 30 = =	66205...	...LG .2991 = =	Weak, fast. Poor copy	BR	THU
	1800z	23 Oct	'463' 412 30 = =	53352...	...LG 15808 = =	Strong, slow. Perfect CW with no errors	BR	TUE
	1800z	25 Oct	'463' 284 30 = =	72276...	...LG 22551 = =	Strong, med-fast. One noted error	BR	THU

6260	1500z	06 Oct	'463' In progress - Monitored by the E2kde meeting in Marburg Marius, David, tiNG. Kopt (& Manolis in Crete)				SAT
	1500z	13 Oct	'463' 654 30 = =	25876...	...LG 07484 = =	Good, Med-fast. Good CW	BR	SAT
	1500z	27 Oct	'463' 774 30 = =		...LG 59233 = =	Fair, fast. LG sent as 59233 59933	BR	SAT
6510	0700z	14 Oct	'463' 501 30 = =	84765...	...LG 12329 = =	Fair, med-fast. Two grps sent as 4-fig only	BR	SUN
	0700z	21 Oct	'463' 098 30 = =	33988...	...LG 19123 = =	Fair, v.fast. LG sent as 19123 09123	BR	SUN
	0700z	28 Oct	NRH					
6710	0700z	07 Oct	'463' 155 30 = =	In progress... LG 34255 = = NRH on 6510 - found IP on 6710			BR/Hans	SUN

Transcript of M01 02 Oct12 **(Both 1800z & 2000z transmissions used the same DK and msg)**

463 (R4) 189 189 30 30 = =

49248 22061 56762 76158 40113
09986 50825 96909 44417 18195
71823 78416 31154 45112 79951
19022 81514 44772 61591 05588
22640 42422 93166 29598 10089
24230 11071 19053 58711 60216
= = 189 189 30 30 0 0 0

Courtesy BR

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

M01b

September 2012:

3510//4605	1832z	13 Sep	'201' 571 30 = 21966...	HFD	THU
4606	1832z	20 Sep	'201' 571 30 = = [21966 24298….45302 == 571 571 30 30 0 0 0] 1842z	tiNG	THU
4586	2010z	14 Sep	Carrier only no CW.	GD	FRI
3520//4585	2010z	21 Sep	'582' 571 30 = 21966 ...	HFD	FRI
4586	2010z	28 Sep	'153' 571 30	GD	FRI
3535//4590	1810z	03 Sep	'420' 571 30 = 21966...	HFD	MON
4590	1810z	03 Sep	'420' 571 30	GD	MON
3625//4941	1902z	07 Sep	'153' 571 30 = 21866...	HFD	FRI
3625	1902z	14 Sep	NRH .	GD	FRI
3625	1902z	28 Sep	'153' 571 30	GD	FRI
3645//4455	1915z	03 Sep	'771' 571 30 = 21966...	GD/HFD	MON
4570	1942z	13 Sep	'477' 571 30 = 21966... // 3715 not heard	HFD	THU
4570	1942z	27 Sep	'477' 571 30 = = 21966 24298 … 45302 == 571 571 30 30 000 1957z	tiNG	THU

October 2012:

4605	1832z	04 Oct	'201' 714 30 = = [08319 35791 .... 48076 63228 = = 714 714 30 30 000] 1844z *keyed somewhat worse, error prosign (E8) after group 23, repeated group 23*	tiNG	THU
3510//4605	1832z	11 Oct	'201'	AB	THU
3645//4455	1916z	01 Oct	'771' 571 30 = 21966 24298 66986 57456 etc (still repeating last month's msg)	RNGB	MON
4455	1915z	15 Oct	'771' 714 30 =	GD	MON
4440	1902z	05 Oct	'*714*' 714 30 =	GD	FRI

*Op made a mess of this calling 714 (ID should be **153**), after 5 mins sent 30 30 msg of 30 groups then 714 714 30 30 000.*
So the 714 was the DK and not the ID.

4455	1916z*	22 Oct	'771' 714 30 = = 08319 35791 etc	HFD/RNGB	MON
4570	1941z	04 Oct	'477' 714 30 = = 08319 35791 ... 48076 63228 = = 714 714 30 30 000 1958z *Same msg as @ 1832z on 4605kHz*	tiNG	THU
4586	2010z	05 Oct	'582' 714 30 = =	GD	FRI
4590	1810z	08 Oct	'420' 714 30 = =	GD	MON
	1810z*	22 Oct	'420' 714 30 = = 08319 35791 08255 51399 etc	HFD/RNGB	MON

* HFD reported on Mon 22 Oct that the M01b transmitter seemed to be faulty as the 2nd harmonic signal on both the 1810z & 1916z transmissions was stronger than the fundamental. 9180 (4590 x2) & 8910 (4455 x2) respectively.

8117	1832z	25 Oct	'201' 714 30 = 08319... weak signal, spurious ?	FN	THU

M01c
No reports

M03 III ICW, some CW

4828	1115z	04 Sep	272/00	HFD	TUE
6977	1535z	11 Sep	798/00 Fair QRM3	ATC	TUE
	1535z	09 Sep	798/00 1538z QSA4 QRM1 QRN 1 QSB3	tiNG	SAT
	1535z	02 Oct	796/31 = 41534 70944 40746 47668.....15793	RNGB	TUE
	1534z	06 Oct	796/31 = 41534 With good signal monitored at E2kde meeting in Marburg	(Marius, David, tiNG, Kopf)	SAT
	1535z	10 Oct	798/00 = 1538z QSA5 QRM1 QRN2 QSB1	tiNG	TUE
	1535z	16 Oct	798/00 1538z Strong	Hans	TUE
9150	1115z	05 Sep	650/00	HFD	WED
	1115z	06 Sep	650/00	HFD/RNGB	THU
	1115z	20 Sep	650/00 (1109z "VVV")	AB	THU
	1115z	02 Oct	272/00	AB/RNGB	TUE
	1115z	03 Oct	650/31 = 93767 18574 65482 60388 52381.....11359	RNGB	WED
	1115z	16 Oct	272/00 1118z Fair	Hans	TUE
	1115z	17 Oct	Nil Heard	ATC	WED
9150	1320z	06 Sep	437/00	RNGB	THU
	1320z	09 Sep	437/00	HFD	SUN
	1320z	13 Sep	432/35= 85171...	HFD	THU
	1320z	20 Sep	437/00	AB	THU
	1320z	18 Oct	437/00	RNGB	THU
	1320z	21 Oct	437/00 1323z Fair/Strong QSB2	Hans	SUN
13911	1420z	02 Sep	879/00 Fair QSB3	Hans	SUN

M03c (Stutter groups)
No reports

M03d
No reports

M03e
No reports

M08a XVIII ICW / CW, some MCW

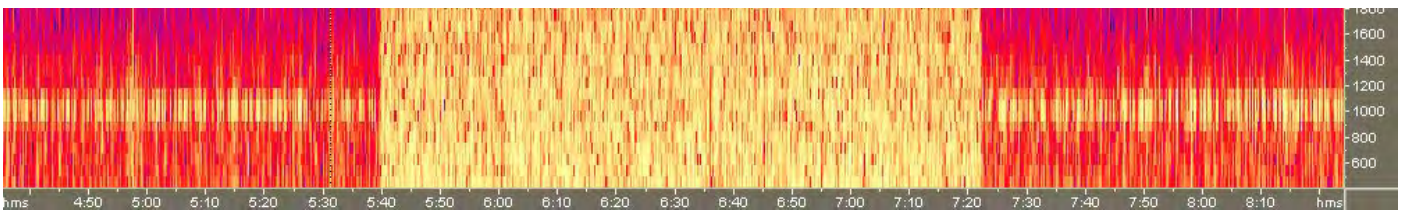
These are the frequencies logged during the period, to be read in conjunction with Mark Slaten's charts.

September 2012:

4478	1100z	22 Sep	[? 24182 ?] End 1132z	Ggs	SAT
5800	0600z	01 Sep	QRN5 End 0634z	Ggs	SAT
	0600z	02 Sep	End 0634z	Ggs	SUN
	0600z	03 Sep	[64302 85132 08451] End 0634z	Ggs	MON
	0600z	04 Sep	[45171 66711 70142] Fair, QSB3	PLdn	TUE
	0600z	06 Sep		Ggs	THU
	0600z	11 Sep	[28832 48771 52202 LG7n877] 0634z Fair,QSB3	PLdn	TUE
	0600z	14 Sep	[08202 10032 23361] Fair, QSB3,QRN2	PLdn	FRI
	0600z	16 Sep	[82071 03711 16132] End uk, clear	Ggs	SUN
	0600z	18 Sep	[12682 33322 46641] End uk	Ggs	TUE
	0600z	21 Sep	[????? 61462 74781] End 0633z	Ggs	FRI
	0600z	23 Sep	[45462 65411 77832] End 0633z (Sent test numbers first @ 0557z 12345 678)	Ggs	SUN
	0600z	25 Sep	QSA1 QRN5	Ggs	TUE
	0600z	27 Sep	[22421 42462 55701] End 0634z	Ggs	THU
	0609z	28 Sep	Strong carrier up, started mid-msg at 0609. QSB2	PLdn	FRI
	0600z	04 Sep	[10411 74442 06172] Msg sent 12mins only, then into SK01. Fair, QSB3	PLdn	THU
5883	0700z	01 Sep	[A 25071 38412 42741 LG 64610] Senorita.Habana sent several number 1 before the message-	DanAR	SAT
5898	0500z	01 Sep	[76671 07311 11642] Strong, with QRM2 and 1m42s break in 1st msg End 0533z	Ggs/PLdn	SAT

M08a got off to a bad start in September with the first 0500z transmission marred by a break in transmission during the sending of the first msg, which was monitored by both Graydogs and PLdn. PLdn comments, *a shoddy operation today!*.

Graydogs reports; *M08a came on air early at 0456z and sent 12345 67890. Remained quiet until 0500z when regular session started. Sudden stop at 0505z. (Sounded like a tape break) Resumed at 0507z with short zip sound like tape being pulled fast forward.*



01 Sept 0500z M08a on 5898kHz showing 1m42s break in transmission occurring 5 minutes into the msg *Courtesy PLdn*

	0500z	02 Sep	[68511 80341 03672 LG 47110 ARARAR SK] 0539z Strong	PLdn	SUN
	0505z	02 Sep	*V02a started at 0458z with 'Uno' - then silence. M08a transmission started as normal.* End 0539z	Ggs	SUN

DanielAR confirms the practice of several speech 'Uno's' sent prior to some M08a transmissions which he believes was probably for testing purposes. *(see 5883 log of 01 Sep above).*

	0503z	03 Sep	[01015 40664 24872] Up late-no intro- msg. in progress. End 0534z / Fair	Ggs/PLdn	MON
	0500z	06 Sep	[71071 01022 14341] End 0534z	Ggs	THU
	0500z	13 Sep	[53162 75702 88131] End 0534z QRM2	Ggs	THU
	0500z	14 Sep	[ANDUW RIGMT ANDUW RI] long tones	PLdn	FRI
	0504z	14 Sep	0504z sent 12345. 0506z two broken characters sent. 0507z sent 567. 0508z sent 567890. *Nothing else was heard for a few minutes so I shut down. Sounded like transmitter problems.*	Ggs	FRI
	0456z	16 Sep	Sent 67890 x3 nothing followed. (See SK01 entry)	Ggs	SUN
	0500z	17 Sep	[66061 78601 81122] End 0533z	Ggs	MON
	0500z	20 Sep	[84711 05541 18862] Clear. End 0533z	Ggs/PLdn	THU
	0506z	23 Sep	[45462 65411 77832] End 0539z	Ggs	SUN
	0500z	24 Sep	[74021 01772 24111] End 0533z QRM4	Ggs	MON
	0505z	27 Sep	[17803 322n3 44308] Fair, QSB3	Ggs/PLdn	THU
	0500z	28 Sep	Strong carrier up, started mid-msg at 0512. QSB2	PLdn	FRI
	0505z	29 Sep	[72432 83272 06501] Fair, QSB2	PLdn	SAT
6785	1900z	12 Sep	[64082 77311 01642] End uk QRN5	Ggs	WED
	1900z	17 Sep	[????? 47352 ?????] End 1934z QSA1	Ggs	MON
6854	2200z	06 Sep	QRN5 Covered by noise	Ggs	THU
	2200z	12 Sep	End 2234z QRN4	Ggs	WED
	2200z	26 Sep	????? End 2234z Probably a repeat of 2100z 6932kHz. msg.	Ggs	WED
6932	2100z	12 Sep	End 2134z QRN5	Ggs	WED
	2100z	26 Sep	[08882 12211 25542] End 2134z	Ggs	WED
7319	1000z	24 Sep	[05421 18752 22271] End uk	Ggs	MON
7519	2200z	03 Sep	[????? 81802 04222] End 2225z	Ggs	MON
	2200z	14 Sep	[71152 84472 17811] QSA3 QRN3 End 2227z	Ggs	FRI
7526	2200z	04 Sep	[86272 00511 12041] End 2227z	Ggs	TUE
7320	0958z	17 Sep	[122] 0959z [60051 83461 07612] QSA5 QRM2 China Radio International	HT	MON
7553	2000z	05 Sep	QRN5 End 2034z	Ggs	WED
7554	2000z	07 Sep	QRN5 Extreme noise	Ggs	FRI
	2000z	24 Sep	QSA1 QRN5 No copy	Ggs	MON
	2000z	27 Sep	QSA1	Ggs	THU
7559	2000z	14 Sep	QSA2 QRN5 End 2034z	Ggs	FRI
7579	1300z	04 Sep		Ggs	TUE
	1300z	05 Sep	QRN5	Ggs	WED
	1300z	06 Sep	[46082 50411 63741]	Ggs	THU
	1300z	07 Sep	QRN5 Extreme noise	Ggs	FRI
	1300z	24 Sep	? ? ? QSA1 No copy	Ggs	MON
8009	2200z	06 Sep	QRN5 Covered by noise	Ggs	THU
	2300z	12 Sep	[72611 45851 58282] End uk	Ggs	WED
	2300z	24 Sep	[40282 63621 76042] End 2326z	Ggs	MON
8096	1400z	03 Sep	[64061 77402 81721] End 1434z	Ggs	MON
	1400z	05 Sep	[80682 63832 76361] End 1434z	Ggs	WED
	1400z	24 Sep	[????? 80721 03152] End 1432z	Ggs	MON
8098	1900z	24 Sep	[47421 51742 64271] QSA1 Dropped in and out making END impossible.	Ggs	MON
8135	2300z	04 Sep	[86272 00511 12041] End 2327z	Ggs	TUE
	2300z	13 Sep	End 2327z QRN2	Ggs	THU
	2300z	14 Sep	[71152 84472 17811] QSA1	Ggs	FRI
	2300z	18 Sep	[27171 31411 43732] End 2326z	Ggs	TUE
	2300z	21 Sep	Transmission was chopped with each number clipped. Transmitter problems? No copy.	Ggs	FRI
9063	0800z	26 Sep	????? End 0834z	Ggs	WED
9112	1000z	14 Sep	QSA1 End 1034z	Ggs	FRI
9153	0700z	26 Sep	[87201 10831 22362] End 0734z	Ggs	WED
10434	0900z	23 Sep	[55742 78172 82501] End uk	Ggs	SUN
10445	0300z	06 Sep	[03601 16022 20451] End 0334z	Ggs	THU
	0303z (IP)	20 Sep	Dropped out after only a few grps sent. Back at 0313z, off again at 0323z and never returned.	Ggs	THU
	0300z	27 Sep	[44011 57342 61761] End 0534z	Ggs	THU
11565	0400z	06 Sep	[03601 16022 20451] End 0434z	Ggs	THU

October 2012:

5800	0100z	26 Oct	[43161 ????? ?????] End uk	Ggs	FRI
	0100z	27 Oct	[43122 55852 67281] End uk	Ggs	SAT
	0600z	02 Oct	[81031 00761 15102] Weak, QSB2	PLdn	TUE
	0600z	06 Oct	Carrier only, toggled on/off	PLdn	SAT
	0600z	08 Oct	[58372 60022 83441] Very weak, QSB3	PLdn	SUN
	0600z	15 Oct	Too weak to copy	PLdn	MON
	0600z	19 Oct	[08102 12431 76362] Very weak	PLdn	FRI
	0600z	20 Oct	[52261 74111 86431] End uk	Ggs	SAT
	0600z	21 Oct	[68132 45762 55211] Weak, readable	PLdn	SUN
	0600z	22 Oct	[08542 21272 33511] LG16404 ARARAR SK 0634z Strong (34m07s)	PLdn	MON
	0600z	23 Oct	[67251 77382 01621] LG37780 ARARAR SK 0534z Fair (33m56s)	PLdn	TUE
	0600z	25 Oct	[74842 06570 18002] QSB4 by ending 0634z Fair, (34m00s)	Ggs/PLdn	THU
	0600z	26 Oct	[43161 64701 77232] LG52624 ARARAR SK 0634z Strong, QSB2 (34m07s)	PLdn	FRI
	0600z	28Oct	[37722 56861 60202 LG81727 ARARAR SK 0634z Weak & noisy, QSB2 (34m12s)	PLdn	SUN
	0600z	29 Oct	[42131 63nnn nnnnn] Weak,occasional characters only QSB3/4	PLdn	MON
	0600z	30 Oct	[34052 45682 12342 LG81522ARARAR SK]0634z Fair (34m43s)	PLdn	TUE
5898	0500z	06 Oct	[57771 66621 80241] Weak, QRM2 QSB2	PLdn	SAT
	0500z	08 Oct	[58372 60022 83441] Weak, QSB3	PLdn	SUN
	0500z	13 Oct	[54722 75562 88882] End uk	Ggs	SAT
	0500z	15 Oct	[????? 03121 16462] End 0534z	Ggs/PLdn	MON
	0500z	18 Oct	[50012 71752 84171] End uk	Ggs	THU
	0500z	20 Oct	[52461 74111 76431] Fair, QRN2	PLdn	SAT
	0505z	21 Oct	[45762 55711 68132] End 0539z Weak in UK	Ggs / PLdn	SUN
	0500z	22 Oct	[08542 21272 33511] LG36724 ARARAR SK 0534z Strong (34m24s)	Ggs/PLdn	MON
	0500z	27 Oct	[43122 55852 67281] End 0534z	Ggs/PLdn	SAT
	0505z	28 Oct	[37722 56861 60202] Fair, QSB2	PLdn	SUN
	0500z	29 Oct	[42131 63861 76201 LG 57046 ARARAR SK]0534z Weak, QSB3 (34m14s)	PLdn	MON
7319	1002z	01 Oct	[68142 42381 55611] QSA5 QRM1 from CRI (China Radio International)	HT	MON
7320	1000z	15 Oct	[6202- 84341 08772] QSA5	HT	MON
7579	1300z	18 Oct	End uk	Ggs	THU
	1300z	23 Oct	[33241 56572 60801] QSA4	HT	TUE
	1300z	24 Oct	[22521 35042 48371] QSA5	HT	WED
8096	1400z	23 Oct	[33241 56572 60801] QSA4	HT	TUE
	1400z	24 Oct	[22521 35042 48371] QSA4	HT	WED
10445	0300z	25 Oct	[47252 12402 34831] End 0333z Tx problems from 0309z, accurate copy impossible	Ggs	THU
11565	0400z	25 Oct	Transmitter problems continued. End 0433	Ggs	THU

M08c
No reports

M08d
No reports

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

To be read in conjunction with 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.

September 2012:

5792/6992/---	0430/0450/0510z	03 Sep	796 000	FN	MON
	0430/0450/0510z	24 Sep	796 000	FN	MON
6784/7684/---	0630/0650/0710z	06 Sep	761 000	FN	WED
	0630/0650/0710z	20 Sep	761 000	FN	THU
6793/5893/---	2100/20/40z	05 Sep	785 000	FN/HFD	WED
	2100/20/40z	19 Sep	785 000	FN/RNGB	WED
8047/6802/5788	1700/20/40z	05 Sep	463 1 (3161 53) 19765...	FN	WED
	1700/20/40z	12 Sep	463 1 (2142 49) 96765...	FN	WED
	1700/20/40z	19 Sep	463 1 (1999 95) 53015...	FN	WED
	1700/20/40z	26 Sep	463 1 (1861 79) 30092...	FN	WED
9176/7931/6904	1700/20/40z	03 Sep	257 1 (2219 800) 62444...	FN	MON
	1800/20/40z	03 Sep	257 1 (4107 57) 51701... QRN 1800/1820z	FN	MON
	1900/20/40z	03 Sep	257 1 (9095 40) 65196...	FN	MON
	1700/20/40z	06 Sep	257 1 (3476 95) 60822...	FN	THU
	1900/20/40z	06 Sep	257 1 (6421 44) 30749...	FN	THU
	1700/20/40z	10 Sep	257 1 (9884 74) 34205...	FN/HFD	MON
	1800/20/40z	10 Sep	257 1 (5257 49) 44564...	FN	MON
	1900/20/40z	10 Sep	257 1 (4754 79) 79086...	FN	MON
	1700/20/40z	13 Sep	257 1 (5534 73) 51832...	FN	THU
	1900/20/40z	13 Sep	257 1 (5165 68) 67332...	FN	THU
	1700/20/40z	17 Sep	257 1 (2353 80) 04109...	FN	MON
	1800/20/40z	17 Sep	257 1 (1232 42) 85217...	FN	MON
	1900/20/40z	17 Sep	257 1 (9822 73) 89103...	FN	MON

9176/7931/6904	1700/20/40z	20 Sep	257 1 (8463 84) 32365...	FN	THU
	1900/20/40z	20 Sep	257 1 (4689 50) 70557...	FN	THU
	1700/20/40z	24 Sep	257 1 (9166 76) 07628... QRM Digi stn. on 1740z transmission	ATC/FN	MON
	1800/20/40z	24 Sep	257 1 (6206 54) 75330...	FN	MON
	1900/20/40z	24 Sep	257 1 (5387 96) 59634...	FN	MON
	1700/20/40z	27 Sep	257 1 (9229 64) 66815...	FN	THU
	1900/20/40z	27 Sep	257 1 (4639 48) 18996...	FN	THU
10343/9264/8116	1700/20/40z	06 Sep	124 1 (2049 78) 77160...	FN	THU
	1800/20/40z	06 Sep	124 1 (8769 81) 02654...	FN	THU
	1800/20/40z	07 Sep	124 1 (8075 75) 69248...	FN	FRI
	1830/1850/1910z	11 Sep	124 1 (8602 51) 00512...	FN/tiNG	TUE
	1700/20/40z	13 Sep	124 1 (2120 78) 76754...	FN/HFD	THU
	1800/20/40z	13 Sep	124 1 (5558 94) 17782...	FN	THU
	1800/20/40z	14 Sep	124 1 (2441 85) 35423...	FN	FRI
	1830/1850/1910z	18 Sep	124 1 (6467 61) 83721...	FN	TUE
	1700/20/40z	20 Sep	124 1 (4082 76) 74042...	FN	THU
	1800/20/40z	20 Sep	124 1 (2643 97) 32248...	FN	THU
	1800/20/40z	21 Sep	124 1 (852 41) 22731...	FN	FRI
	1830/1850/1910z	25 Sep	124 1 (1226 70) 47950...	FN	TUE
	1700/20/40z	27 Sep	124 1 (9436 73) 34567...	FN	THU
	1800/20/40z	27 Sep	124 1 (8810 49) 11600...	FN	THU
	1800/20/40z	28 Sep	124 1 (9240 82) 95630...	FN	FRI
11435/10598/9327	1830/1850/1910z	05 Sep	938 1 (4159 68) 35445...	FN	WED
	1830/1850/1910z	12 Sep	938 1 (2564 66) 09698...	ATC/FN	WED
	1830/1850/1910z	19 Sep	938 1 (7055 67) 45544...	FN	WED
	1830/1850/1910z	26 Sep	938 1 (4083 64) 64278...	FN	WED
11469/10469/---	2110/30/50z	01 Sep	441 000	FN	SAT
11469/10469/9169	2110/30/50z	08 Sep	441 1 (784 91) 28034...	FN	SAT
	2110/30/50z	22 Sep	441 000 No transmission heard at 2110z	FN	SAT
	2110/30/50z	29 Sep	441 000	FN	SAT
12162/11566/10711	1600/20/40z	03 Sep	546 1 (9248 920) 22140...	FN/HFD	MON
	1600/20/40z	10 Sep	546 1 (4218 930) 37017...	FN	MON
	1600/20/40z	17 Sep	546 1 (8320 73) 37825...	FN	MON
	1600/20/40z	24 Sep	546 1 (852 41) 22731...	FN	MON
13524/11524/10334	1500/20z	05 Sep	344 1	HFD	WED
	1500/20/40z	12 Sep	344 1 (141 133) 52093... Repeat of 10 Sep 1300z	ATC/FN	WED
	1500/20/40z	19 Sep	344 1 (444 271) 91429...	FN/RNGB	WED
	1500/20/40z	26 Sep	344 1 (140 195) 24645... Repeat of 24 Sep 1300z	FN	WED
13873/13373/---	1310/30/50z	06 Sep	834 000	HFD	THU
	1310/30/50z	08 Sep	834 000	FN	SAT
	1310/30/50z	15 Sep	834 000	FN	SAT
13873/13373/11473	1310/30/50z	22 Sep	834 1 (312 97) 58701...	FN	SAT
	1310/30/50z	29 Sep	834 000	FN	SAT
14372/ 13472/11472	1300/20/40z	03 Sep	344 1 (821 127) 77798...	FN	MON
	1300/20/40z	10 Sep	344 1 (141 133) 52093...	FN/HFD	MON
	1300/20/40z	24 Sep	344 1 (140 195) 24645...	FN	MON
15926/13926/12126	1830/1850/1910z	02 Sep	991 1 (453 219) 95566...	FN	SUN
	1830/1850/1910z	05 Sep	991 1 (959 177) 46387... 1830z weak signal, fading	FN	WED
	1830/1850.1910z	09 Sep	991 1 (959 177) 46387... Repeat of 05 Sep 1830z	FN	SUN
	1830/1850/1910z	12 Sep	991 1 (181 109) 69759...	FN/HFD	WED
	1830/1850/1910z	16 Sep	991 1 (181 109) 69759... Repeat of 12 Sep 1830z	FN	SUN
	1830/1850/1910z	19 Sep	991 000	FN	WED
	1830/1850/1910z	23 Sep	991 000	FN	SUN
	1830/1850/1910z	26 Sep	991 1 (615 203) 71453...	FN	WED
	1830*/1850/1910z	30 Sep	991 1 (615 203) 71453... Repeat of 26 Sep 1830z	FN	SUN

**Note: 1830z txm stops at 1840z, call and message repeated. Skeds of 1850z and 1910z lasted 13 min. I therefore suspect first txm was not sent at its full length.*

M12 10343kHz 1830z 11 Sep12

124 1 (R2)

8602 51 8602 51

00512	36542	88377	17783	37030
93697	36598	95439	54628	27540
73430	56572	82090	85957	47658
89392	10795	96649	23335	83554
24409	42444	90922	72007	98147
44005	59091	59465	31420	44082
33727	89948	73348	25367	45107
10589	90592	37505	98795	71345
66560	28550	32191	65623	19589
11982	06835	10707	17139	68586
34031				

000 000

Courtesy ATC

M12 11435kHz 1830z 12 Sep12

938 1 (R2)

2564 66 2564 66

09698	76321	66160	40285	45448
37153	17130	20830	49711	57167
35396	71570	13336	26867	79131
88900	07021	77227	16145	62062
56762	31188	99512	28995	83729
17627	64884	77605	97351	59164
24630	30309	18320	21884	59987
31595	98807	73806	20820	40506
72629	59250	78136	32083	60573
06970	82027	36258	40686	94765
78387	06?00	51650	37774	18081
33024	19686	19986	92703	56827
06448	24320	17890	74632	64833
65422				

M12 7931kHz 1720z 24 Sep12

257 1 (R2)

9166 76 9166 76

07628	51904	87244	33628	05750
39517	60275	76745	18433	64936
91687	63372	11906	07612	21831
74539	28442	01041	50304	43070
45401	85321	32333	35932	29962
45946	62179	82491	33966	56017
14900	02834	50348	21715	19150
23717	34789	75866	06748	55605
75919	24080	45170	74921	84894
53784	64766	00830	82830	52774
64594	99392	59496	44867	08759
75166	50211	80596	50172	15688
55965	46863	21610	07330	08792
91611	27317	92929	39519	43524
85112	95421	64365	26323	04813
86936				

October 2012:

4617/5317/---	0430/0450/0510z	01 Oct	638 000	FN	MON
6784/7684/---	0630/0650/0710z	11 Oct	761 000	FN	THU
	0630/0650/0710z	25 Oct	761 000	FN	THU
8047/6802/5788	1700/20/40z	03 Oct	463 1 (5933 49) 83371...	FN	WED
	1700/20/40z	10 Oct	463 1 (1628 41) 18321...	FN, Spectre	WED
	1700/20/40z	24 Oct	463 1 (4237 60) 23972...	FN	WED
9176/7931/6904	1700/20/40z	01 Oct	257 1 (6956 72) 51777...	FN	MON
	1800/20/40z	01 Oct	257 1 (5586 68) 61437... Strong QRM dig. station on 1840z transmission	FN	MON
	1900/20/40z	01 Oct	257 1 (4545 90) 54547...	FN	MON
	1700/20/40z	04 Oct	257 1 (4803 82) 85710...	FN	THU
	1900/20/40z	04 Oct	257 1 (9409 43) 73864...	FN	THU
	1700/20/40z	08 Oct	257 1 (7176 72) 08731... QRM dig. station on 1740z transmission	FN	MON
	1800/30/40z	08 Oct	257 1 (5127 63) 60803... QRM dig. station on 1840z transmission	FN	MON
	1900/20/40z	08 Oct	257 1 (5056 78) 65568...	FN	MON
	1700/20/40z	11 Oct	257 1 (6249 55) 38171...	AB/FN	THU
	1900/20/40z	11 Oct	257 1 (9811 49) 37063...	FN	THU
	1700/20/40z	22 Oct	257 1 (3063 73) 51414... QRM dig. station on 1740z transmission	FN	MON
	1800/20/40z	22 Oct	257 1 (2743 55) 55514... QRM OTHR 1800z. QRM Digital Stn 1840z	FN	MON
	1900/20/40z	22 Oct	257 1 (7299 68) 87605... QRM dig. station on 1940z transmission	FN	MON
	1700/20/40z	25 Oct	257 1 (6982 87) 34138...	FN	THU
	1900/20/40z	25 Oct	257 1 (3769 67) 71259...	FN	THU
9223/8193/7463	1500/20/40z	03 Oct	839 1 (513 55) 83955 50404... Repeat of 01 Oct 1300z	FN/RNGB	WED
	1500/20/40z	10 Oct	839 1 (967 99) 71974... Repeat of 08 Oct 1300z	FN	WED
	1500z	17 Oct	839 1 Weak Sig	ATC	WED
	1500/20/40z	24 Oct	839 1 (722 119) 08895...	ATC/FN	WED
10269/9269/---	2110/30/50z	06 Oct	229 000	FN	SAT
	2110/30/50z	13 Oct	229 000 Weak signal on 2110z transmission	FN	SAT
	2110/30/50z	24 Oct	229 000	FN	WED
	2110/30/50z	27 Oct	229 000	FN	SAT
10343/9264/8116	1830/1850/1910z	02 Oct	124 1 (2206 53) 61374...	FN	TUE
	1700/20/40z	04 Oct	124 1 (2240 76) 05177...	FN	THU
	1800/20/40z	04 Oct	124 1 (6757 61) 49090...	FN	THU
	1800/20/40z	05 Oct	124 1 (5358 87) 48509...	FN	FRI
	1700/20/40z	11 Oct	124 1 (4635 74) 58556...	AB/FN	THU
	1800/20/40z	11 Oct	124 1 (4589 72) 65800...	FN, Spectre	THU
	1800/20/40z	12 Oct	124 1 (4475 75) 47791... Weak signal on 1800z transmission	FN	FRI
	1830/1850/1910z	23 Oct	124 1 (2929 50) 00004	FN	TUE
	1700/20/40z	25 Oct	124 1 (3973 72) 51679... Strong QRM digital station 10343kHz	FN	THU
	1800/20/40z	25 Oct	124 1 (1711 42) 50457... Strong QRM digital station 10343kHz	FN	THU
	1800/20/40z	26 Oct	124 1 (540 47) 32484...	FN	FRI
10804/9324/7964	1300/20/40z	01 Oct	839 1 (513 55) 83955 50404...	FN/RNGB	MON
	1300/20/40z	08 Oct	839 1 (967 99) 71974...	FN	MON
	1300/20/40z	22 Oct	839 1 (722 119) 08895 63561 etc	RNGB	MON
10814/---	1330/50z	06 Oct	282 000 New ID	FN	SAT
12214/10814/---	1310/30/50z	11 Oct	282 000	FN	THU
	1310/30/50z	13 Oct	282 000 Weak signal on 1310z transmission	FN	SAT
	1310/30/50z	25 Oct	282 000	FN	THU
	1310/30/50z	27 Oct	282 000	FN	SAT
11435/10598/9327	1830/1850/1910z	03 Oct	938 1 (4520 66) 03908...	FN	WED
	1830/1850/1910z	10 Oct	938 1 (2380 68) 21918... Weak and noisy signal on 1830z transmission	FN, Spectre	WED
	1830/1850/1910z	24 Oct	938 1 (7703 59) 45075...	FN	WED
12162/11566/10711	1600/20/40z	01 Oct	546 1 (3907 94) 83844...	FN	MON
	1600/20/40z	08 Oct	546 1 (2753 61) 57068...	FN	MON
	1600/20/40z	22 Oct	546 1 (737 47) 09876...	FN	MON
12217/10617/9317	1830/1850/1910z	03 Oct	263 1 (880 165) 34184...	FN	WED
	1830/1850/1910z	07 Oct	262 1 (880 165) 34184... Repeat of 03 Oct 1830z	FN	SUN
	1830/1850/1910z	10 Oct	263 000 Weak and noisy signal on 1830z transmission	FN	WED
	1830/1850/1910z	24 Oct	263 1 (923 99) 79685...	FN	WED
	1830/1850/1910z	28 Oct	263 1 (923 99) 79685.. Repeat of 24 Oct 1830z	FN	SUN

M12a (two message variant)
No reports

M14 IA MCW / ICW / MCWCC, short 0

5464	1920z	12 Sep	537 (409 15) = 31627...	HFD	WED
5945 / 5947	1820z	11 Sep	346 (250 15) = 52819... ...93627 1827z	HFD/Spectre/tiNG	TUE
5947	1820z	25 Sep	346 (250 15) = 52819 71035 26189 42619.....93627 MCW	RNGB/tiNG	TUE

5947	1820z	10 Oct	346 (801 15) = = 61739 01728 91027... ... 71037 1827z	tiNG	TUE
8194	1800z	05 Oct	269 00000	RNGB	FRI
9126	1700z	05 Oct	269 00000	RNGB	FRI

M14 5947kHz 1820z 11 Sep12

346 (R3)

250 250 15 15 = =

52819 71035 26189 42619 52719
72839 52671 02617 32819 63728
38193 62810 46381 72854 93627
= =

250 250 15 15 0 0 0 0 0

Courtesy Spectre

M14 5947kHz 1820z 25 Sep12

346 (R3)

250 250 15 15 = =

52819 71035 26189 42619 52819
72839 52671 02617 32819 63728
38193 62810 46381 72854 93627
= =

250 250 15 15 0 0 0 0 0

(Note: Grps 01 & 05 are equal!)

Courtesy tiNG

M14a (two message variant)
No reports

M18 IC Time strings, UTC+4

3883	1829z	02 Sep	Strong signal, a new frequency [2230 2230 2230 ...]	FN	SUN

M23 O ICW

A very busy period for M23 starting on Sep 01with '135' just starting at 1752z on 5345kHz with a // transmission on 4951kHz.

The following day found '579' in progress at 1955z on 9218kHz with a // on 8155kHz on Sep 03. (With a subsequent // confirmed on 7442kHz).

Then on Thu 06 Sep '579' in progress at 0955z on 7442//9218kHz.

On the 12 / 13 Sep the '579' scheds changed to a '246' call and the scheds changed times slightly to start on the hour.

Finally, on Fri 14 Sep an early sched for the '135' transmission at 0700z on 5345kHz. was discovered.

Then on Sunday 16 Sep all frequencies went silent. - but this was only a temporary break.

The 0700z sched was active again on Wed 19 Sep, but with a changed call of '842'. The 1800z sched was also back with the '842' call, while the 2000z sched reappeared with '246'. The 1000z sched was not reported on 19 Sep but was almost certainly present, as it was heard again on Thu 20 Sep.

However the returning scheds were short lived and the '246' scheds failed to appear on Fri 21 Sep and the '842' similarly failed to appear on Sat 22 Sep.

The freqs were monitored regularly and on Thu 04 October we were rewarded with a reactivation of 4951//5345kHz - but the call had now changed to '246' - previously used only on the 7442//9218kHz scheds. The station was heard sending '246' for 15mins at both 1700z and 1800z. This schedule continued from Thu 04 Oct until Wed 17 Oct - Exactly two weeks, and on Thu 18 Oct the scheds failed to appear although the hourly dashes were still present on 5345kHz.

This was still the position at the time of writing (Sun Oct 28). No transmissions, but hourly dash still present on 5345kHz .

Hourly Dashes
BR reported that during the duration of the 7442kHz sched a dash or two were transmitted every hour a couple of dashes were sent out at H+52, like the Tx being keyed. The strength and time would indicate that this originates from the same transmitter and this was confirmed when the dashes changed to H+00 when the scheds changed their times. The dashes were noted for many hours, though they were not monitored around the clock. These dashes ceased with the ending of the 7442kHz sched.

Then following the cessation of the scheds on 22 Sept, GD reported on 26 Sep that the hourly short dashes were now present on 5345kHz, and on 04 Oct that sched came to life with the '246' call.

So we know that over the duration of the scheds one of the freqs in use carries the hourly dashes, and that if these continue even when the sched is silent, then a reactivation of the sched is imminent.

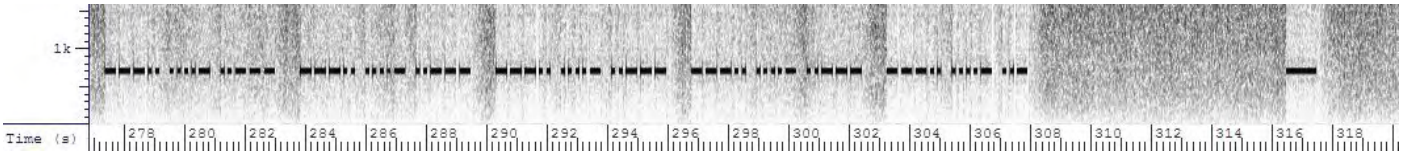
Are these hourly markers a message to the recipient that a sched is expected, or do they have another purpose? Whatever the reason this discovery is an important feature of this station's profile.

End of transmission dashes
PLdn reports two brief dashes following the end of the 05 Sep transmission. This has proved to be a regular occurrence on all the current M23 scheds and, since the length and number of dashes varies, appears to be manual keying of the transmitter,.

The transmissions do not start and finish neatly and often appear and disappear part way through sending one of the numbers.

'135' Sched (Early)

5345	0700 - 0711z	14 Sep	'135' (R11)		GD	FRI
	0700 - 0711z	15 Sep	'135' (R11)		GD	SAT
4951//5345	0700 - 0715z	19 Sep	'842' (R15)		RNGB	WED
	0700 - 0715z	20 Sep	'842' (R15)	Long tone at end on 5345	BR/GD/PLdn	THU
	0700 - 0715z	21 Sep	'842' (R15)	Strong / Strong	PLdn	FRI



20 Sep 0700z Long tone following end of transmission on 5345kHz *Courtesy PLdn*

'135' / '246' Sched (Late)

5345	1752z	01 Sep	'135' (R12)		GD	SAT
4951	1800z (IP)	01 Sep	'135' (R)	Strong, Ended 1804z	BR	SAT
4951//5345	**1752 - 1804z**	**Daily**	**'135' (R12)**	**02 Sep - 12 Sep V.strong//V.Strong**	BR/DOK/GD/PLdn/RNGB	
	Change of time from 1752z to 1800z noted on Thu 13 Sep;					
4951//5345	1800 - 1812z	13 Sep	'135' (R12)	V.strong//V.Strong	BR	THU
	1800 - 1812z	14 Sep	'135' (R12)	V.strong//V.Strong	BR	FRI
	1800 - 1812z	15 Sep	'135' (R12)	V.strong//V.Strong	BR	SAT
	1800 - 1815z	19 Sep	'842' (R15)	V.strong//V.Strong	BR/GD	WED
	1800 - 1815z	20 Sep	'842' (R15)	V.strong//V.Strong	BR/tiNG	THU
	1800 - 1815z	21 Sep	'842' (R15)	V.strong//V.Strong	BR	FRI
	The October reactivation;					
	1700 - 1715z	04 Oct	'246' (R15)	V.strong// Strong	BR/GD	THU
	1800 - 1815z	04 Oct	'246' (R15)	V.strong// Strong	BR	THU
4951//5345	**1700-1715z**	**Daily**	**'246' (R15)**	**05 Oct - 16 Oct**	BR/GD/RNGB	
	1800-1815z	**Daily**	**'246' (R15)**	**05 Oct - 16 Oct**	BR/GD/Hans/RNGB	

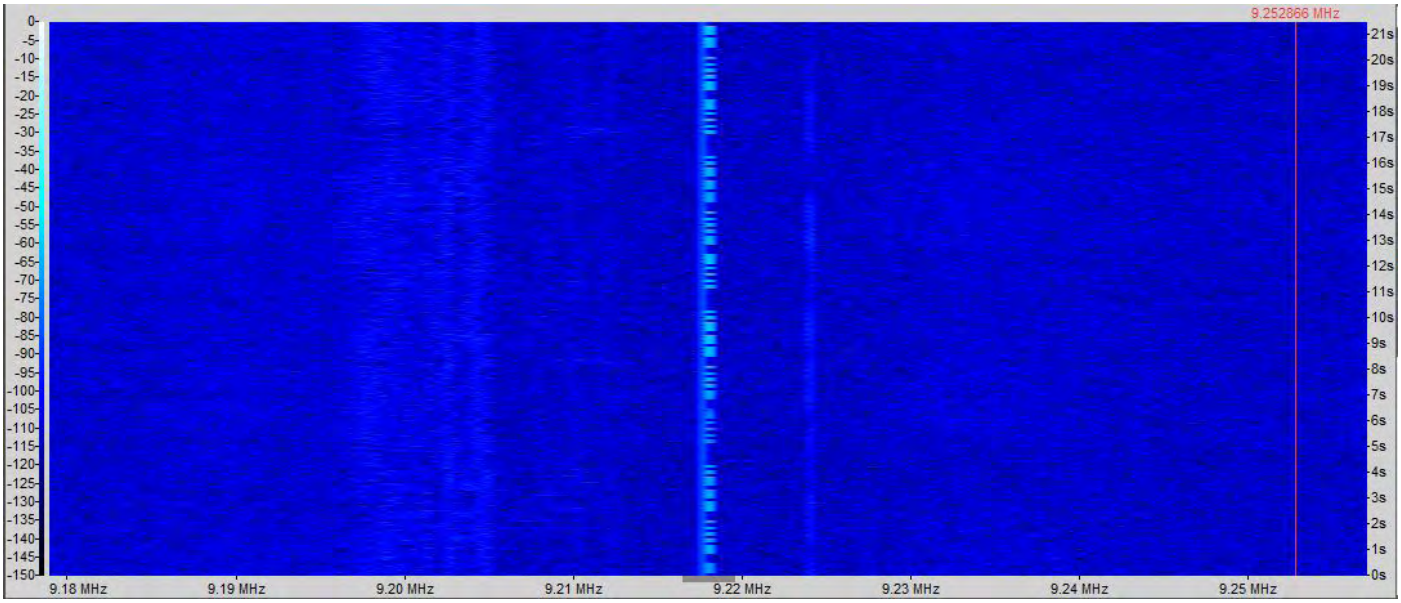
'579' / '246' Sched (Early)

7442//9218	0955z (IP)	06 Sep	'579' (R)		RNGB	THU
7442//9218	**0952 - 1004z**	**Daily**	**'579' (R12)**	**06 Sep - 12 Sep**	BR/RNGB/Spectre	
	Following the example of the 1952z sched, the call and duration changed on Thu 13 Sep					
7442//9218	0952 - 1006z	13 Sep	'246' (R14)		BR	THU
	And similarly changed times and duration on Fri 14 Sep.					
7442//9218	1000 - 1015z	14 Sep	'246' (R15)		BR/GD	FRI
	1000 - 1015z	15 Sep	'246' (R15)		BR/GD	SAT
	1000 - 1015z	20 Sep	'246' (R15)	Weak// Fair	BR	THU

'579 / '246' Sched (Late)

9218	1955z	02 Sep	'579' (repeated)	Strong QSB2 2003z	Hans	SUN
8155	1952z	03 Sep	'579' (R)	Very weak	DoK	MON
9218	1952z	03 Sep	'579' (R)	Very weak, 421Hz QRM3	DoK/PLdn	MON
8155	1952 - 2004z	04 Sep		NRH	BR	TUE
9218	1952 - 2004z	04 Sep	'579' (R12)	Strong	BR/RNGB	TUE
7442//9218	**1952 - 2004z**	**Daily**	**'579' (R12)**	**06 Sep - 11 Sep**	BR/PLdn/RNGB/Spectre	
	Change of Call and a longer call-up time noted by GD & PLdn on Wed 12 Sep ;					
7442//9218	1952 - 2006z	12 Sep	'246' (R14)		GD/PLdn/Spectre	WED
	Along *with the '135' sched, the times and duration changed on Thu 13 Sep;*					
7442//9218	2000 - 2015z	13 Sep	'246" (R15)		GD/Spectre	THU
7442//9218	2000 - 2015z	14 Sep	'246" (R15)		BR/GD/Spectre	FRI
7442//9218	2000 - 2015z	15Sep	'246" (R15)		BR/GD/Spectre	SAT
7442//9218	2000 - 2015z	19Sep	'246" (R15)	Strong // Strong	BR/GD	WED
	2000 - 2015z	20Sep	'246" (R15)	Weak // Weak	BR	THU

There was severe BCast QRM from China Radio International on the 7440kHz frequency, though M23 could still be clearly monitored.



12 Sep 1952z M23 in progress sending changed call of '246' *Courtesy PLdn*

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

9946/8095	1800/1830 z	22 Sep	801 (726 81) = 63126 53531 84218.....35928	RNGB	SAT
9952/8098	1640/1740z	24Sep	343 (728 146) = 58016 12819 16246 24946 47201.....57276	RNGB	MON
11487	1301z (IP)	19 Sep	In progress. Ended at 1303z with 05014 905 148 00000	RNGB	WED
8095	1740z	15 Oct	Call Missed (692 154)	GD	MON
8116	1800z	05 Oct	441 (267 98) = 38163 42786 91408.....54263	RNGB	FRI
	1800z	26 Oct	441 (967 103) = 23962 84957.....06389	RNGB	FRI
9946/8095	1640/1740z	22 Oct	343 (507 138) = 87823 31856 19765 16357.....65810	RNGB	MON
9952/8098	1640/1740z	01 Oct	343 (569 142) = 53650 51782 64157 86519.....57179	RNGB	MON
11128	1300z	18 Oct	215 (409 56) = 23525 72052 81323 95643.....49059	RNGB	THU

M24a as M24 with 2nd addressee hand keyed, rarely intercepted.
No reports

M45/2 XIV (Sept/Oct) MCW, slow, hand, paired gps Will change to M45/1 for Nov-Feb on 3525//4025 at 18.02z clg '525'

4555//4955	1802z	04 Sep	'555' 794 30 = 87455 64099 34187 etc..	HFD/RNGB/tiNG	TUE
4555	1802z	11 Sep	'555' 794 30 = = **Same message as S21 at 1842z** S5-6	tiNG	TUE
	1802z	13 Sep	'555' 794 30 = = 87455…50656 1818z QSA 2 QEM2 QRN 3 QSB 3	tiNG	THU
	1802z	25 Sep	'555' 794 30 = = 87455 64099 … 90656 = 1818z QSA3 QRM4 QRN2 QSB3	tiNG	TUE
	1802z	27 Sep	'555' 794 30 = = 87455 64099 . . .90656 = 1818z QSA5 QRM2 QRN2 QSB2	tiNG	THU
			Stopped after grp09, tx went off 1810z - tx went on 1811z, msg continued with grp18 at 1813z		
4555//4955	1802z	02 Oct	'555' Interrupted transmission	GD	TUE
			GD reports *Started sending 555 with a very strong signal, then stopped, sent a few letters including DVD, another pause then straight into sending the message. After another pause, came back with a very weak signal.*		
4955	1802z	11 Oct	'555'	AB	THU
4555	1802z	23 Oct	'555' 101 35	GD	TUE
4854	1842z	23 Oct	'454' 101 35 **This one should have been S21, Morse sent instead**	GD	TUE

M50 XIV MCW
No reports

M51 XlX

To start the listings we have some detailed logs from Spectre with a couple of full transcripts - Many thanks Spectre!

6824	2048z	14 Sep	[NR 85 S 11 22:48:13 1984 BT TDSDC ... QYSGW BT] 2054z Fair QRN3 QSB3	Spectre	FRI
	2054z	14 Sep	[NR 86 S 11 22:54:26 1984 BT GUAVE ... ZHRJX BT] 2100z Fair QRN3 QSB3	Spectre	FRI
	2100z	14 Sep	[NR 87 S 11 23:00:35 1984 BT VQHKK ...TAQRN BT] 2106z Fair QRN3 QSB3	Spectre	FRI
	2106z	14 Sep	[NR 88 S 11 23:06:58 1984 BT AZCRK ... XSSZL BT] 2113z Fair QRN3 QSB3	Spectre	FRI
	2113z	14 Sep	[NR 89 S 11 23:13:14 1984 BT GFNDP ... KVVJQ BT] 2119z Fair QRN3 QSB3	Spectre	FRI
	2119z	14 Sep	[NR 90 S 11 23:19:30 1984 BT OPLVS ... YEDWZ BT] 2125z Fair QRN3 QSB3	Spectre	FRI
	2125z	14 Sep	[NR 01 S 11 23:25:44 1984 BT ZQZUE ... AYRUA BT] 2131z Fair QRN3 QSB3	Spectre	FRI
	2131z	14 Sep	[NR 02 S 11 23:32:01 1984 BT OWXQA ...JBFTO BT] 2138z Fair QRN3 QSB3	Spectre	FRI
	2138z	14 Sep	[NR 03 S 11 23:38:11 1984 BT HTMUJ ... KNRIE BT] 2144z Fair QRN3 QSB3	Spectre	FRI
	2144z	14 Sep	[NR 04 S 11 23:44:26 1984 BT MFGVS ... ENDJR BT] 2150z Fair QRN3 QSB3	Spectre	FRI
	2150z	14 Sep	[NR 05 S 11 23:50:44 1984 BT GIMXO ... RIRNE BT] 2156z Fair QRN3 QSB3	Spectre	FRI
	2156z	14 Sep	[NR 06 S 11 23:56:57 1984 BT YGQIL ... VCJTA BT] 2203z Fair QRN3 QSB3	Spectre	FRI
	2203z	14 Sep	[NR 07 S 12 00:03:13 1984 BT RSVSK ... PHHBY BT] 2207z Fair QRN3 QSB3	Spectre	FRI
	2207z	14 Sep	[NR 08 S 12 00:07:32 1984 BT NAWXL ...MINQO BT] 2215z Fair QRN3 QSB3	Spectre	FRI
	2215z	14 Sep	[NR 09 S 12 00:15:50 1984 BT HACEY ... QMDVL BT] 2222z Fair QRN3 QSB3	Spectre	FRI
	2222z	14 Sep	[NR 10 S 12 00:22:06 1984 BT OYILM ... ROBGE BT] 2228z Fair QRN3 QSB3	Spectre	FRI
	2228z	14 Sep	[NR 11 S 12 00:28:24 1984 BT XYLGD ... YUBLE BT] 2234z Fair QRN3 QSB3	Spectre	FRI
	2234z	14 Sep	[NR 12 S 12 00:34:39 1984 BT NHRKX ... OGFUW BT] 2240z Fair QRN3 QSB3	Spectre	FRI
	2240z	14 Sep	[NR 13 S 12 00:40:57 1984 BT AMFPX ... OOTIN BT] 2247z Fair QRN3 QSB3	Spectre	FRI
	2247z	14 Sep	[NR 14 S 12 00:47:17 1984 BT AAFBF ... BOCPL BT] 2253z Fair QRN3 QSB3	Spectre	FRI
	2253z	14 Sep	[NR 15 S 12 00:53:29 1984 BT ATYSG ... QRT] 2259z Fair QRN3 QSB3	Spectre	FRI

M51 6824kHz 2054z 14 Sep Transcript:

NR 86 S 11 22:54:26 1984 BT
GUAVE DTDRG UQLET DTPSE VBWGZ YFXBM NOVQB GSQSU XCXGL HPUWB
ZKOBV TWXPO KTKVS BLDHW YSQOH CZDYI POWTT NATIT HNCIJ MVTYP
FXGNO RNXPH KVWDL TPMGE MFFZP VRDSJ ZAORI IHCUF MGOEV IJYJA
LGYOU KZQEM XWHVX RSPYE IQQUV NFJQT XNIDL XMCCD HDZIX HPVNS
WXMBP AETDE OTITS ADETO EZKFH QJSHV DRETY OECNN QKWPQ MLUDW
UMRRA SXFRT YHXDW NBOPX VYYDX TREJW GCCPJ YPDTU LBTUD LQLSW
DKDYB ENTEJ JLCST XMTRR MOVOE SIOYF FPOJL BBJCO TYWJZ LXNTO
UEOCK GZLVF BVNFU LVKVA OHJSI CDPGT JHOEF EKIGG DPBUB QTEKX
XUIDF JETNW AYBLO VKSNE IFTTT XUWAK HZEUK EXTYL EZAAE FTMFG
UTTNA HIQWP NHGPS HLMET XMRWI TGLQE ZBJII EELCG HHWAU ZHRJX
BT *Courtesy Spectre*

M51 6824kHz 2125z 14 Sep Transcript:

NR 01 S 11 23:25:44 1984 BT
ZQZUE HIWWN GOITS NFQMU STUIM VLXQN UGXVE EORNT NJNZF VDKVK
DKVYA EMDON ISMWK JQBFR VEHEO KZJVN QUOCE LXTKC IEAIO TAIYE
QJVCZ CKIWA DRHOZ DYAVM RVXRL ZFROJ XJBUN XPSEE TKEOX ETDCL
YEVQN ASJJD KPLXK HIFJE OQLHR MYNKX MPZJA AQMQF OLFTR GQDHX
GFTQE IZTIC PPZIK HZWVS IGARC ZWFJU FQOBM IZJCG LVEQG OGARR
WMASP SGEKV KPMWB LQUSE UVTGE SYDGJ OMRZN CUFSL XKFIS UXREH
AOJXZ KRUOC UYNWH QIOVP QTNIE OXKIN FJDJV XCXZE OKBRV XXEBN
MBFGT JCSDN GLCWM NETFV QJGBJ CETYN PWGPO AUVET XRCFF YPWTT
SVEFX DLUNX YAWOI ZFJCJ TYWNI TGAZL MDICK UQSEZ MRNDN HWXFI
FARYG XESMF HGNOX FEWUP UHWCH RDCHI LIRWT FDMCT TZSIG AYRUA
BT *Courtesy Spectre*

2811	0140 - 0205z (IP)	26 Oct	5 ltr grps. Msgs NR72, NR73, NR74, NR75 O 26 03:58 [1984] (Cont.)	BR	FRI
3536	2150 - 2335z (IP)	20 Sep	5 ltr grps. Msgs NR90, NR91 S 20 21:00 [1984] etc. Still going 21 Sep 0500z	BR	THU
3613	2030 - 2310 (IP)	26 Sep	5 ltr grps. Msg NR21, NR 22 S 26 23:00 [1984] etc. Still going 27 Sep 0500z	BR	WED
3881//6825	1115 -1128z (IP)	18 Sep	5 ltr grps. Msgs NR01 & NR02 S 18 [1984]. Ends suddenly for M51a sched.	BR	TUE
6825	0820z (IP)	15 Oct	BT NR28 and 29 from at least 0820z	ATC	MON
8016	1600z (IP)	15 Oct	BT NR90 from 1600z	ATC	MON

5452kHz2256z	23/10 [NR 17 O 24 00:56:33 1984 BT KCGJO ... GMIDC BT] 2302z Fair QRN2 QSB2	Spectre	TUE
2302z	23/10 [NR 18 O 24 01:02:34 1984 BT YREEY ... SPCUS BT] 2308z Fair QRN2 QSB2	Spectre	TUE
2308z	23/10 [NR 19 O 24 01:08:50 1984 BT UMTEZ ... CHUBU BT] 2315z Fair QRN2 QSB2	Spectre	TUE
2315z	23/10 [NR 20 O 24 01:15:10 1984 BT FDRCP ... WNDVO BT] 2321z Fair QRN2 QSB2	Spectre	TUE
2321z	23/10 [NR 21 O 24 01:21:23 1984 BT FXQSI ... XGRXT BT] 2327z Fair QRN2 QSB2	Spectre	TUE
2327z	23/10 [NR 22 O 24 01:27:46 1984 BT OBVGA ... OBTFK BT] 2333z Fair QRN2 QSB2	Spectre	TUE
2333z	23/10 [NR 23 O 24 01:33:59 1984 BT PITMH ... TEAUE BT] 2340z Fair QRN2 QSB2	Spectre	TUE
2340z	23/10 [NR 24 O 24 01:40:13 1984 BT PVBBP ... SQVUD BT] 2346z Fair QRN2 QSB2	Spectre	TUE
2346z	23/10 [NR 25 O 24 01:46:30 1984 BT JHROJ ... ABHMO BT] 2352z Fair QRN2 QSB2	Spectre	TUE
2352z	23/10 [NR 26 O 24 01:52:41 1984 BT HTJBF ... EBAFE BT] 2358z Fair QRN2 QSB2	Spectre	TUE

M51 5452kHz 2256z 23/10 Transcript:

NR 17 O 24 00:56:33 1984 BT
KCGJO FFVKV WKWQB CLKVG ZQEDA SVSST DWWHA VOOQB WXNKG FAQOE
IXDET GAEGG IAMWB KAWFG TFYTN UQKCO FNCAX FDMPU ASGYZ VERCZ
WTMSH TKGUG VZGWC DDDED ISGLE BNETQ IYYML WAUWS MUIRY CJGRI
GJMNG AVXOE VNVUR XASNH ULHEN HAQGN FKOCR NKISD IVSAZ WFNCC
SQEYR MVGNM DJITX CZKIO HJOYH KHUQV IQWED BCWMS ZEPQO ZRVXL
TDYHV CRLKL WLYSP TRBVW EILOU QGPNL DZVXY MBOJR GVNWT RJQAK
OLMRV NNDOQ WFLXI WVZRQ SFIVN VCEPI UVWHD CURSN GDBDM XZYWW
KAXKD WAVLV HFUPX SIATU MQLUZ DMAKW YSNUV LRIKA IUULC KMCPK
HRUIW BWPYN EJQUT SRVUM UGQVQ MRAXS VRANK JZFHN KBPCD FEYQI
ETYEU BMAJE GMKWW TBTUI JJQLA XHWIG DZONF LQDZT CMVKJ GMIDC
BT Courtesy Spectre

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

3881//6825	0830 - 0910z	12 Sep	Lecon 03-1/1 Code CQ DE FAV22 VA Fair QRN3 QSB3	(720 grps/hr)	Spectre	TUE
	1130 - 1140z	12 Sep	Lecon 03-1/1 Code, 03-1/2 Clair. Ceased suddenly mid-sentence.	(720 grps/hr)	BR	WED
	1130 - 1155z	13 Sep	Lecon 04-1/1 Code, 04-1/2 Clair, 04-1/3 Code & 04-1/4 Clair.	(840 grps/hr)	BR	THU
	1130 - 1203z	14 Sep	Lecon 05-1/1 Code, 05-1/2 Clair, 05-1/3 Code & 05-1/4 Clair.	(960 grps/hr)	BR	FRI
	1130 - 1206z	17 Sep	Lecon 11-1/1 Code, 11-1/2 Clair, 11-1/3 Code & 11-1/4 Clair.	(420 grps/hr)	BR	MON
	1130 - 1200z	18 Sep	Lecon 12-1/1 Code, 12-1/2 Clair, 12-1/3 Code & 12-1/4 Clair	(600 grps/hr)	BR	TUE
	1130 - 1203z	19 Sep	Lecon 13-1/1 Code, 13-1/2 Clair,13-1/3 Code & 13-1/4 Clair	(720 grps/hr)	BR	WED
	0830 - 0853z	20 Sep	Lecon 14-1/1 Code, 14-1/2 Clair,14-1/3 Code & 14-1/4 Clair	(840 grps/hr)	BR	THU

M55 O
No reports

M62 O
No reports

M76 O
No reports

M87 O
No reports

M89 O

September 2012 GT = Global Tuners (Online remotely controlled receivers)

First a new find from JPL on **4036kHz** with a call of **B4NR.** JPL reports *' Only reference I was able to find for B4NR was a logging back in Jan 02 on 4047.5kHz'* He believes it to be some sort of channel marker - probably up between the period 50 - 00 and 20 - 30.

4036	1353- 1400z	11 Sep	UNK (In progress) B4NR (R7)	(GT Hong Kong)	JPL	TUE
	1420- 1430z	11 Sep	UNK B4NR (R10)	(GT Hong Kong)	JPL	TUE
	1326- 1330z	12 Sep	UNK (In progress) B4NR (R4)	(GT Hong Kong)	JPL	WED
	1820- 1830z	15 Sep	UNK B4NR (R10)	(GT Hong Kong)	JPL	SAT

Next, some two-way traffic found by JPL on 5682kHz - Not a regular M89 freq;

5682 1450 - 1501z 03 Sep (In tfc) (GT Hong Kong) JPL MON

(In tfc 4 fig cut nrs – hand sent - 1450Z) (Silent 1452z)
EE (1455z)
.P GAM GE (1457z)
MU.. DTBT BT U37T ..
(Two stations on same freq)
NR 7P BT BT U37T 4763 ...
(Weaker station sending tfc) AS AS AS AS (Stronger stn) (1501z) (Other priorities - unable to monitor any longer)

5682 1643 - 1707z 04 Sep (In tfc) (Tue) (GT Hong Kong) JPL TUE

(In 4 fig cut nrs – very loud signal)

NA73 AA73 U4T5 N3N3 NUN6 756T 7AAD 5U33 55NU U346 ...AR //A (1857z)
(Both stations are on this freq //A is very lound and stn //B is very weak - //A is sending to //B)
QSL...//B (Very weak – faded out) OK OK OM OK RI RI//A
UNUL L URL U //A (1658z) ....//B (1659z) (Silent)

5682 2149- 2153z 08 Sep (In tfc) (GT Hong Kong) JPL SAT

(2149z In tfc) 7NNU NDU7 4UA6 5A73 46T6 N474 A7T6 NDT? N633 6.4D 6DUT ATUU UDU5 U747 45.? 45UT 46D7 AT4U 3T34 DTDN DNTA
? U564 3T75 D7NT AUND N5TU 564D 6T57 74U3 A537 5NN6 5U55 D66A 5474 D7NT AUND N5TU .64D 6T57 74U3 A537
5NN6 5U55 D66U 547T ANDN 5536 DATU 6TAA 66A3 .4T4 A57. U.4D D754 AND6 T6N6 UU4T A7NU 3TTU A73U 37T5
53A4 3TNU 7735 5537 T7N3 NNU5 57TT AN? AD45 D7NT UNAT .4A7 T44 7.7 A557 .. P GA A5 (2136z)
2 PPA BT N5UA 73A3 U74U 7TN6 77N4 4A7N 64A7 TN75 T3UA 4N7 ? 4N76 663U 73NA A.N? UAD4 .A3D T..N 64T6
46D4 N3TU 4AD7 3433 N... (Someone changed freq on tuner!) 5D6T 6456 U6T5 475T 57T4 A53A N36D NAN6 NU5A
U476 5D3N 63DV 3TAU 3U46 D4NT 3AR7 TD73 .AT4 .5UN .6T3 7D7U 5466 TTTT DD3A AT53 AUUN A7UA
TADA T43T TU65 6UT4 N63N 543U U6D4 36T7 34TN 37D. ? 37D7 U5U6 A3TN 6.? 66TN AA36 7A4N DUD4
D5.5 .NA53 TNA3 TU5.. DD.N 36.N U4N6 5ANU 7345 U7TA TNT5 5U53 III (2144z) EEEE 3P GA BT BT
BT 3AUU 3U35 NNU7 33U3 75NN TUT5 3334 NNT5 3.6N NU6U UA5U N6TU 653T DNA6 3U7N 7.UD
A35U 6A6N U7DA 35DU NAUN DTDN U67N 73UA AAN4 34T7 7T5T. NAT 7753 4U37 3354 NDTT ND33
A65N 6U33 UA35 7N67 ..DD 33N4 U7DN 5655 7NN6 37T.N AA? AA54 N5AU 7U66 .U6. 64.5 ? 6DN3 5UD3 .NDN D7AA
N..A 674T 4N6D 6357 DT77 AN6A ..T3 A4D5 4D.T 36U7 DN7N AU45 5T75 .3D5 AAUV ? U447 3DD3 7D4T 6.7. UT43 37D4 6N.A?
67A6 3DT6 44NA ? 73D 6T4N 44A4 U655 646N T44N D654 DN6N DD77 4.U6 364. AT? AU7A NU4T AA43 3T5A 6TU7 UT73
(2151z) UAD6 U35U TA6N U553 T766 AR AR (2151z - Silent)

Another exercise under way?

JPL noted a flurry of activity starting around Wed 12 Sep. As well as much Op. chat on two new frequencies, 4047 & 8014, both 4225 and 5500 QV5B markers had been silent since monitoring at 1150z 12 Sep.

The activity on 4047 & 8104 continued through to the weekend with JPL logging a regular 0200z sched on 8014 until Monday 17 Sep when the sched failed to appear. Looks like another exercise was under way.

Here is the breakdown of the activity :

4047:

CM8Z (Control station)
0OQX (Zero OXQ)
8NOS
F1PZ
F5SU
DPU2

Courtesy JPL

8014:

DNP2 / DMP2 (Control station - 9049)
0JPY (Zero JPY)
F7UT
J7OX (8864)
HPU3 (8799)
8IMZ (8149)

Courtesy JPL

Note: Number is bracket appears to be msg address for that station.

8013 2302 - 2319z 07 Sep (In chat) (GT Hong Kong) JPL FRI

(2302z) VIW DE UIW. R .Z RQSA 2 QSA 2 OK SK PSE R M OK N.L. R R TM KS (Silent - 2304z)

8014 0301 - 0320z 11 Sep (In chat/tfc) (GTs Hong Kong) JPL TUE

(0301z) GA (0301z) GA (0302z) R QSL 1103 (0303z) U EEEE HR 7G GA MSG NR 1. CK . T eeee (0304z)
MSG NR 04 CK 199 80 911 1100 BT R BT BT BT
U3UA 67ND A64A N7DA AU75 3D6T NATN ANN5 TADA TTA5 5735 U446 UTUD 76DT T746 D4D5 T4UD U665 7DTB 5634
D5DT ... (Cont'd) (Machine sent – quite fast – approx 25 WPM) AR (0312z) R
BT BT UU34 AR BT BT 66U3 AR BT BT DU5. AR BT BT 3UUT AR BT BT 463T AR
BT BT EEEE BT BT 463T ...7T4A 36NA NU6T DAN7 474T 5T53 54T4 747N NDN6 6A4T UD76 NT3U 7T.. (Cont'd) AR (0314z)
BT BT A453 74AN NA5A 7U57 T546 34D4 D3D4 6347 DA3U AR (0315z) R R
BT BT 6NN. AR BT BT AD6A AR BT BT UT54 BT BT 7NUT AR BT BT BT 357U AR U 7 GA (0316z)
(0320z) GA (Hand sent) (0317z) R R OK QSL 1121 VA GB (0320z)

8014 0340 - 0405z 11 Sep (In chat/tfc) (GT Hong Kong) JPL TUE

(0340z) U QSY TO 22 AR 7UUQSY TO 22 22 VVV K K K HR MSG GA GA (0341z) GA
CY CY MSG NR PC EEEE MSG NR 04 CK 199 80 0911 1130 BT BT BT
575A U67D N4N3 D674 A7NT U776 5DU6 5TD7 TAD3 TT4T 476N U447 (Cont'd) (Machine sent – 25 WPM)
U QSY TO NR 01 (0343z) U QSY TO NR 01 NR 01 K (Hand sent – 0344z) U QSY TO NR 01 NR 01 K (0345z)
U QSY TO NR 15 NR 15 K U QSY TO NR 15 NR 15 K (0346z) U QSY TO NR 15 K
U QSY TO NR 18 NR 18 U QSY TO NR 18 NR 18 K (0347z) K
U QSY TO NR 05 NR 05 U QSY TO NR 05 K (0348z) U QSY TO NR 05 K U QSY TO NR 08 U QSY TO NR 08 NR 08 K (0349Z)
U QSY TO NR 08 K U QSY TO NR 13 K (0350z) U QSY TO NR 13 NR 13 K
(0350z) MSG NR 04 CK 199 80 0911 11.0 BT 575A U67D N4N3 D674 A7NT U...(Cont'd) (About 30 WPM now) (0350Z)(Silent 0351Z)

8014 0151 - 0208z 12 Sep (In chat/tfc) F7UT (GT Hong Kong) JPL WED

(0151z) R R BT BT N533 AR BT 6537 AR BT 5U3T AR BT DA4A AR BT N76. AR BT 5A75 AR BT 43NU AR BT TA7U AR
BT BT BT BT BT BT 5AT3 AR (0153z) BT 34A4 AR BT BT U74U AR BT U74U AR QSL ? K BT BT 5U5 AR BT BT BT BT
5U5A AR VA (0155z – Silent) EE (0157z) VV VV VV VV *F7UT* K VV VV F7UT K (Cont'd) QSY TO NR 18 NR 18 U
QSY TO NR 18 NR 18 K VV F7UT K K K U QSY TO NR 18 K K DE VV F7UT K (0200z)
QSY TO NR 18 K U QSY TO NR 18 K K VV F7UT K K K K VV U QSY TO NR 18 K K K U
QSY TO NR 12 U QSY TO NR 12 K VV U QSY TO NR 12 K K VV K K VV F7UT K U QSY TO NR 12 K K (0203z)
K VV VV T VV F7UT K K VV V K K VVV F7UT K K VV F7UT K K VVV K
(0204z) U QSY TO NR 12 U QSY U QSY (0204z) (Silent)

8014 0224 - 0345z 12 Sep (In chat/tfc) (GT Hong Kong) JPL WED

(0224z) VVVVVVVVVV *J7OX* K (0224z) VV DE DE R RR QSA 2 (0223z) HR NR 5 EEEE C BT 5816 AR R R HR NR 124 K
R R HR GA K R EE EE NR 07/EX 1033 RMKS 9049 TO 8864 K (0232z) R R BT BT AB 7CD/PEFBG AR K
BT BT AB7CD/PEFBG AR BT ABC EEEEE BT AB7CD/PEFBG AR K (0234z) U GA U GA GA GA GA (0235z)
QSL 1036 K HR 7G GA K R RK K R MSG NR 08 CK 199 80 0912 1030 K R R BT
T3.... 4A36 3T46 5D7A NUD7.. (Cont'd)(0237z)(Some fading on signal) AR AR (0245z)
K R R BT BT 4A36 AR K AGN BT BT 4D47 AR BT BT 4D47 AR K AGN
BT BT 5D64 AR K BT BT T6U6 AR K BT BT U37A AR K AGN R R R R R BT 4DT7 AR K (0247z)
B T U34A AR K BT A743 AR K BT BT 7D76 AR K BT AUAN AR K BT AUAN AR K R R R U GA (0249z)
U U GA GA GA GA GA (0250z) R RR QSA EEEE QSL 1055 K (0254z) K QSL 1055 K SK SK SK SK (0255z)(Silent)
VVV HPU3 *HPU3* K (0258z) K VVVV HPU3 HPU3 K K U QSY U QSY TO NR 18 U QSY TO NR 18 K (0259z)
VVV V FPU3 HPU3 U QSY TO NR 18 K K K VVV FP EEEE VV HPU3 HPU3 K (0300z) U QSY TO NR 24 U QSY TO NR 24 K
K VVV U QSY TO NR 24 K K VVVV HPU3 HPU3 K K K VV U QSY TO U QSY TO NR 24 K K (0302z)
U QSY U QSY TO 0000 KK U QSY TO 0000 (4 ZEROS) K K VV F EEEE VV HPU3 HPU3 K K U QSY TO (0304z) (Silent)
R RR QSA 2 K (0306z) IEC BT 5816 AR K HR NR 124 K R HR GA K EE NR 07/EX 1108 RMKS 9049 TO 8799 K (0307z)
BT BT LAI7 N/MWP2R AR BT LAI7N/MWP2R AR K (0308z) R R GA GA (0309z) RRR QSL QSL 1111 K HR 7G GA K
R MSG NR 07 CK 199 80 0912 1100 R BT A47A 6UT3 76AT T535 5NAA 4N76 T55D 337U TA6D TTU7
TA4A (Cont'd)(0311z) AR AR (0319z) BT U54T AR BT 4EEEE BT 5T36 AR BT BN56 AR BT BT 5DN5 AR
BT A6DU AR R R UMSG GN EEEE U MSG GA K (0321z) GA R R CK 199 K K CK 199 K R R 130 MGA K
GA GA GA (0322z) AA R R QSL 1130 K (0329z) QSL 1130 BT ? BT EEEE SK (0330z) VV VV 9IM EEEE VV *8IMZ* K
VV DE R R QSA 2 K (0331z) R A R SC C BT 5816 AR K R HR NR 124 K R R HR E GA
EE NR 07/..133 RMKS 9049 TO 8EEE RMKS 9049 TO 8149 K (0333z) R R BT ZHA7N/GT2PR AR BT ZHA7EEEE
T BT ZHA7N/GT2PR AR K BT ZHA7N/GT2PR AR (0334z) R U GA GA GA R QSL 1136 K (0335z)
R HR .MSG GA K R R MSG NR 07 CK 115 80 0912 1130 K (0336z) MSG NR 07 CK 115 80 0912 1130 K R R BT
(0342z) 537A N54A N63D AD53 U75T ... (Cont'd) AR AR (0341z) R R BT TD3. AR R R BT TTTA AR BT .. AR R SK (0342z) (Silent)

8014 0157 - 0430z 14 Sep (In chat/tfc) (GT Hong Kong) JPL FRI

(0157z) VV VV *0JPY *K (Call-sign is ZERO JPY) (0203z) (The net control station for this net never seems to send his call-sign)
DE R R QSA 2 K (0202z) R IEC BT 5816 AR K HR NR 135 K AGN R R HR 7G GA K (0204z)
R R *MSG NR 16 CK 99 42 0914 1006 BT* MSG NR 16 CK 99 42 0914 1006 BT BT BT
37UA 73D6 U3TN 463T AU5D DU35 476 UT7D TA6N TTTD 7AU5 D435 7TD5 A457 AN7A (Cont'd) AR (0309z)
BT BT TA6N AR 40W BT BT 3TDU R (0310z) BT BT 47U5 AR BT BT TN5D AR
BT BT FM BT BT NAME EEEEE BT BT NA7U AR (0311z) BT BT T3AU AR BT BT TND7 AR 20W TO 30W BT BT
T3AU NA7U U5N7 UT73 DA5N AD43 6AT4 N7A6 7356 T7AN TND7 AR (0312z) R R H HR 7G GA K HR R R
MSG NR 17 CK 199 80 0914 1000 BT BT BT B3AU DT4T 6NTA 5DT6 3UAD 4N74 T6D4 NUDA TA6D TT44 (Cont'd)
AR (0222z) AS AS V K R R R R BT BT 3DD4 AR BT BT TTT5 (0224z() BT BT TA6D ? AR BT BT TA6D AR

R BT BT N43A AR R R BT BT 63AU AR BT BT BT BT TT44 AR BT BT TD6A AR
P2P K22PK 9W 9W BT TADU AR K (Hand sent) WP9 W BT TADU AR K (Hand sent) R R 2P R R BT BT 6736 AR (0227z)
BT BT 6736 AR BT BT 4AT6 AR BT BT 6U56 AR A R R .EEEE HR 7G GA K R R *MSG NR 18 CK 299 75 0914 1000 BT*
R BT BT 3A37 A64D TDD7 U637 64NU 33NA 7UA6 DA35 TA65 TT33 AUN7 U575 (Cont'd) AR (0242z) R R BT BT DTTA AR
BT BT ADU3 AR BT BT D536 AR BT BT TTA4 AR AGN 81W BT BT D6DU AR BT BT D6DU AR
BT BT DT76 EE BT BT DT76 AR R R BT BT 6T5A AR (0244z) BT BT 6T5A AR BT BT TT33 AR AGN
R R UGE EEEE AS (0246z) U QSY TO NR 15 NR 15 U QSY TO NR 15 NR 15 K (0247z) R R GA U GA AS U 7G GA K (0248z)
R GA (0249z) R RPT .. (0257z) 87W R R 84W 69W R FM R R 49W PN R R 1P 1P 90W R R R A R 72W (0300z)
R R 39W R 35W R R 33W R R 29W R 2W EEEE 2W R OK *QSL 1103 K* (0302z) K R HR 7G GA K R
MSG NR 19 CK 199 80 0914 1000 BT R BT BT BT DATD 6AD7 434 753A 4AU6 3D76 67TA N54A T... (Cont'd) AR (0311z)
R R HR 7G GA R R *MSG NR 20 CK 299 75 0914 1000 BT* R BT BT BT
TAAU 465A 3U3A DUTA 6A67 U5NA N4A6 UTD5 TA65 TT3N U676 6NN3 (Cont'd) AR (0325z) R R R BT BT 757U AR
BT BT 76TM EEEEE BT BT 76T7 AR R R 53W BT BT T56A AR BT BT UNDT AR BT BT 3U7U AR R R AS (0327z)
U7G GA K GA (0328z) R R 2P (0337z) 21W R R 44W 44W 50W R 4 EEE 57W TO 79W 57W TO 79W R R 58W
R QEEEE 80W 80W 1P 70W 70W R 37W R R OK *QSL 1142 K* (0342z) R R U99 EEEE UCK 99 GA K 20 MG K (0343z)
EEEE ? ? (0344z) EEE SK EEEE QTA K QTA K (0344z) OK SK GB (0345z)(Silent)(Monitored until 0403z)
VV 5... K (Missed callsign)(0403z) DE DE DE H5R Z...2 R IEC BT 5816 AR (0404z) R HR NR NOTK R AS HR 7G GA R R
7G NR 21 CK 30 42 0914 1200 R R *MSG NR 21 CK 30 42 0914 1200 5703 BT* U4DA 7... 2PN 1W GA BT
57T3 U4DA 73A6 4TUN U56T 6N47 4U57 UN35 TA6N TTT7 AD57 U3AD
5D3 – 5D34 UT73 U4N. N7AD TU73 AUN6 4AT3 A64T 53T... (Cont'd) AR (0408z) 20W BT BT A64T AR BT BT TU73
(0430z) R HR 7G GA (0409z)(Silent)(Monitored until 0430z)

8014	0132 - 0352z	15 Sep	VV 0JPY DE DNP2 (In chat/tfc)	(GT Hong Kong)	JPL	SAT

(Monitored since 0132Z) VVVV 0JPY 0JPY *0JPY DE DNP2* K K (Zero JPY) (0206z) (Finally got the callsign of the control station!) DE HR QSA 2 K (0206z)
R IEC BT 5816 AR K R HR NR 112 K R HR MSG GA K MSG NR 18 *MSG NR 18 CK 99 42 0915 1000 BT* BT BT
T4N4 6NDA 7T36 DU3N UND4 5A6A 3636 7UDN TA6N TT4A (Cont'd) AR (0212z) BT BT TA6N II R R HR MSG GA K
MSG NR ENCK ENN TA BT EAA BT *MSG NR 19 CK 199 80 0915 1000 BT* BT BT
3NDT 73DU DAAU 67N3 6UN. (Cont'd) (0213Z) AR (0222Z) R R BT TTN3 II R R BT BT U445 II R R HR MSG K
MSG NR 20 CK 199 80 0915 1000 BT BT BT T3UA A3D3 4A36 3T46 5D7A NUD7 75UT (Cont'd) (0224Z) AR (0232z)
R R (0232z) K K N EE BT BT BT BT NT5U II R R R R K K XX W BT BT N5N5 II BT BT U37A III
BT BT N6NT III BT N6NT II BT BT A654 II BT A654 II BT BT 6T3N III R R U MSG GA K (0235z) R R 120 M GA K (0235z)
3 PW EEEE 3 P 30W (0246z) BT... R R 2P 11W 60W QSL 1048 K (0248z) U MSG GA K GA 120 M GA K (0249z)
3P (0259z) 22W 25W 84W 48W FM 2P 52W 68W AGN R R 1P 98W R R QSL 1100 K (0302z) HR MSG GA K
MSG NR 21 CK 299 75 0915 1000 K BT BT DAN3 36N7 5DTU 6TA3 6U7T T3UA U53D (Cont'd) (0303z) AR (0315z)
R R BT BT ... R R U MSG GA K (0316z) 120 M G AR (0328z) 3P 32W FM FM (0328z) R 82W FM 89W FM EEEE 2P
13W FM FM R R 1P 12W 26W FM R 43W QSL 1130 K (0331z) HR MSG GA K MSG NR 22 CK 299 75 0915 1000 K
BT BT 3UNA UD76 3446 6UD3 ... (Cont'd) (0332Z) AR (0343z) (Lost tuner) BT BT 3676 II BT BT UDN6 II BT BT 576U III
R R KK.K W BT BT T43D III BT BT U7.. III (Fading) BT BT 6D5A III BT BT UD76 III BT BT 3UNA III SK SK GB (0348z)
(Monitored until 0352z)

8014	0208 - 0606z	16 Sep	VV 0JPY DE DMP2 (In chat/tfc) (Sun)	(GT Hong Kong)	JPL	SUN

(Monitored from 0158z) VV 0JPY *0JPY DE DMP2* DMP2 K (0208z) **(Last night callsign was sent as DNP2)** DE R HR QSA 2 K R IEC BT 5816 K
R IE HR NR 14 EEEE R HR NR 122 K R R HR MSG GA K *MSG NR 17 CK 99 42 0916 1000 BT* K R K K K R R BT BT
75TU D5UN D556 N7DU 7436 4UNU D5NA A346 TA6N TTAT 63UT 45A7 D3TA 537N U7D4 (Cont'd) AR (0214z)
99W ... K (0214z) BT BT 564U K BT T7N3 K R HR MSG GA K R *MSG NR 18 CK 199 80 0916 1000 BT* K R BT BT
EA4D.,,(Faded) 6UNT DT3A 44TD 54N3 (Cont'd) (0217z) AR (0224Z) R R BT BT TTT6 R R R BT BT TTT7 AR
R HR MSG GA K R *MSG NR 19 CK 199 80 0916 1000 BT* K R BT BT BT T4UA 4U7N 6U5T ... (Cont'd) (0227z)
AR AR (0233z) R R BT BT 7U3N 7U3N AR AR R BT BT 5T.. TD4 ? EEEE R BT BT T746 K R BT BT 4D67 K
R BT BT D7NU R BT BT D66A AGN R K C..EEE R BT BT 5D.A R BT BT 43N7
R R BT BT 43N7 A..3 TN37 ND45 A3NT 5DNA AR AR (0237z) 1 II 1W K R BT BT N57U R BT BT D3N6
R R K K H R BT BT 3TAU R BT BT 567. R BT BT 35N4 R BT BT N4A7 R BT BT 4T5A 3.W TO 30W K (Handsent) (0241z)
R R BT BT N4A7 AUTD 6D54 NT47 A6NU N447 5N.. U7T4 47AT DAU3 DAT6 N6U4 AT63 B..A 53N3 (Cont'd) AR AR K (0242z)
R AGN (0243z) R BT BT ND6U AGN R BT BT NT5A 6TA7 5DNA U4N7 5T7U ND6U AR R BT BT DAT6
R BT BT N4A7 AUTD 6D54 NT47 A6NU N447 5N63 U7T4 47AT DAU3 DAT6 R BT BT DAU3 R U MSG GA K (0247z)
R R GA (0248z) R R 2P (0257z) 94W R R 81W R 34W EEEE 3EEEE 44W R R 24W TO 34W K R R 1P 90W FM 38W
FM 24W R R 7W EEE 70W R 75W FM FM AGN HH 93W R FM FM R FM FM R R OK QSL 1102 K (0303z)
AS AS U QSY TO NR 15 U QSY TO NR 15 K (0304z) R R A U MSG GA K GA NR 98 K (0305z) R R 110 G EEEE 110M GA
R R (0313z) R A4 EEE 3 2P K K 2P K K 2P 2P K R R (0314z) (Silent) R R K K QSL 1120 K (0320z) HR 7G GA K R
MSG NR 20 CK 299 75 0916 1000 BT K R K R R BT BT 5AA4 ADA3 DTUA D546 3345 U5UT (Cont'd – approx 30WPM) (0322z)
AR (0331z) R AGN BT BT 75U3 R H AM SG GA K R MSG NR SCKINNSE *MSG NR 21 CK 299 75 0916 1000 BT* R
MSG NR 21 CK 299 75 0916 1000 BT R BT BT NTU4 A45A 6N... (Cont'd – approx 30 WPM) AR (0343z) AGN R R
K K 5 BT BT TTU6 R AS HR 7G GA K HR 7G GA K R *MSG NR 22 CK 299 75 0916 1000 BT* AGN R
CK 199 CK 9 EEEE CK 199 K R BT BT N575 5NT3 6T6A 3AT6 635U NU6A 7456 34U5 TA65 TTA3 (Cont'd) (0348Z)
AR (0355Z) R R AGN 48W BT 7AT3 K R R BT BT D334 K R SK GB (0356z) K C GB (0357z) (Silent)
VV VV *HHP5* K (0406z) (New callsign) DE R QSA 2 K R HR KR 134 K HR NR 134 K HR MSG GA K
*MSG NR 23 CK 99 42 0916 1200 * MSG NR 23 CK 99 42 0916 1200 BT BT
D7TA 73UN 53A6 UT7A 4TD6 D746 DU3T 5D67 TA66 TTT7 DT7D (Cont'd) (0409z) AR AR (0412z) BT K K
IEC BT ANE EEEEE IEC BT 5816 AR K (0413z) R R MSG CT MSG CT EEEEEEE MSG TC AGN AGN BT 7D7A
B3W BT G..7AR KC(Handsent – horrible morse) U2BW BT .. AR 7W BT DUET AR K BT D746 AR BT D..6 AR
R U7G GA (0417z) / TU 5/ R (0431z) U QSY TO NR 12 K U QSY TO NR 12 1 P 1P 1P K 58 K R FM U R R R 71W
R R 75W 70W R R R R 76W 76W R 1W EEEE 100W R R QSL 1235 K (0435z) K HR MSG GA K
MSG NR 24 CK 199 80 0916 1200 BT BT BT N35A TDUN N35T T43U AU43 3N5D 53D7 67U6 TANT TTU3 (Cont'd) (0436Z)
(0446z) AR AR (0444z) R R BT 4DAA AR K R AS EEE U7G GA U 7G GA (0446z) GA

(0500z) 2P (0500z) 43W R 1W 1W 1W R R QSL 1300 K QSL 1300 K (0501z) HR 7G GA K *MSG NR 25 CK 199 80 0916 * BT
NHU5 A6NU 3ATD N774 6A4U T45 4N3N D43T TANT TTTA 57AU 54AT (Cont'd) (0503Z) AR AR AR (0510Z)
R R . BT ANND R K BT ANND AR 1W BT HE ..AR (Hand sent – horrible morse) R H7W BT 734D AR BT N55W AR
BT N BT N553 AR R R 58NW BT ..AR K 73UA EEE BT 63DN EEEE 8 EW BT 63D7 AR R BT BT N5U5A6NU 3ATD N774 BA...
AR K (0513z) BT BA4U AR K BT N774 AR R U 7G GA (0514z) R A R 4P (0532z) 62W 4P 62W 62W 62W
R QSL 1334 K (0533z) HR 7G GA K *MSG NR 26 CK 299 75 0916 1200* BT BT BT
5TA7 ND34 TU3N 53TU 6NDA T6UA 4776 7U75 TA65 TTAT (Cont'd) (0535Z) AR AR (0546z) K C CK 299 R R R
50W BT 54EEEE 50W 7.. AR K 40W BT 3N53 AR 35W BT 5UDT AR
R 35W TO40W BT BT 5UDT NA73 7D5T D63T 736T 3N53 AR K (0549z) 38W BT D63T AR K BT 7D5T AR K R R R 883W BT
TD7N AR K BT 4UA5 AR 41W BT 4T7T AR R HR 7G GA K *MSG NR 27 CK 99 75 0916 1200*
MSG NR 27 CK 99 75 0916 1200 BT BT BT A645 ADDT D67A A7D6 3675 6DTA U6D4 47TA TA65 TTA4 ... (Cont'd) (0552Z)
AR (0555z) BT BT NU7U AR BT BT 677T AR TA ? BT EEE R SK (0556z) (Silent) VV *F7SX* K QSEEE FM5?EEEEEE
QSA 2 K (0600z) R IEC BT FME EEE C BT 5816 AR K R HR NR 134 K HR NR 134 K R HR MSG GA K
(0606z) *MSG NR 28 CK 99 42 0916 1400* (Silent)(Monitored until 0606z)

Operator chat was also logged on the following;

4047	1438- 1503z	11 Sep	(In chat/tfc) 8NOS DE CM8Z Very strong signal	(GT Hong Kong)	JPL	TUE
	1959- 2028z	11 Sep	(In chat/tfc) DE CM8Z	(GT Hong Kong)	JPL	TUE
	1429- 1450z	12 Sep	(In chat/tfc) 0OQX DE CM8Z	(GT Hong Kong)	JPL	WED

4047	1428- 1459z	14 Sep	(In chat/tfc)	(GT Hong Kong)	JPL	FRI

(1428z) VV 0OQX *0OQX DE CM8Z* CM8Z K (1434z) R AS 8NOS *8NOS DE CM8Z* CM8Z K (1435z) K R AS
F1PZ *F1PZ DE CM8Z* CM8Z K (1436z) R AS F5SU F5SU F5SU *F5SU DE CM8Z* K R AS DPU2 *DPU2 DE CM8Z* K
R IEC IEC BT 2109 AR 0OQX K R 8NOS K 8NOS 8NOS K (1438z) IEC BT 2109 AR K F1PZ F1PZ K R AS
HR NR 351 K (1440z) F1PZ K RPT K F1PZ F1PZ L K K R F5SU F5SU K IEC IEC K R HR NR 351 K RPT K
R AS DPU2 DPU2 K IEC K R HR MSG GA K (1443z) K R MSG NR 0051 CK 299 0913 223
MSG NR 0051 CK 299 0914 2230 BT T743 4776 75T6 3A44 D746 7T5A TT33 (Cont'd – abt 30 WPM) AR (1456z)
0OQX QSL ? WRR 8NOS 8NOS QSL ? F1PZ F1PZ QSL ? R F5SU F5SU QSL ? (1458z) R DPU2 DPU2 QSL ?
(1459z) R SK SK (1459z) (Silent)

5801	1247- 1305z	11 Sep	(In chat/tfc) This freq normally used by 3A7D	(GT Hong Kong)	JPL	TUE
7816	1042 - 1052z	22 Oct	(In chat/tfc)	(GT Hong Kong)	JPL	MON
		(1042z)	? (In Chat) MSGPBL NR 314 CK 95 55 0919 1600 RMKS 2328 TO 2412 R K VV BT BT			
		(1043z)	4NA6 T57A U6D3 N3T5 7U4D A6U7 3T5D 6A3N U5N4 D47T (Cont'd – 1043z) (Silent 1047z)			
8007	1559 - 1717z	24 Oct	(In chat/tfc)	(GT Hong Kong)	JPL	WED
		(1559z)	8457 87EEE K K II III R MKS K K 87O4 8457 87O4 K K III (1602z) III RI RMKS KK 87.4 8..457TO 77. ? K K 87O4 TO 8457 TO 87O4 K K III (1604z) (87O4 IS 87 OSKAR 4) BT BT 65AD D4A7 36D5 3T5D A56T 34AD U7N3 7NU. (Cont'd – very slow CW) BT 05 II R R N K MKS TO U BT BT NR 72.. 1.. CK 2. .. 77 DA. ..5 TIME 2330 RMKS KK 87O4 TT UU? R . RKMS R E ? RMKS KK 87O4 TO 8457 TO 87O4 K K III (1608z) III BT BT 65AD D4A7 36D5 3OEFI 3T5D A56T 34AD U7N3 7NU4 DU4T NU4T 6? 657N N36D AU3D 4T7U 7TUN 6D4A .TN5 4... D3N4 5ND3 I.. (1610z)			
		(1615z)	PSE PSE AS K U. K NR (1612z) II AR II AR (1614z) NIL SK III (1615z)			
8007	0001 - 0150z	25 Oct	(In chat/tfc)	(GT Hong Kong)	JPL	THU
		? (0001z)	(Monitored from 2352z) OHA1 (Call-sign ?) AR (Voice came up on freq) R QSL K (0007z) QSA 1 K (0008z) (Voice on freq again – 0028z) (Silent – 0031z)			

The regular M89 Logs continue below;

3297// NRH	1133 - 1134z	01 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1308 - 1309z	01 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1604 - 1605z	01 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1157 - 1158z	02 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1457 - 1458z	02 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1650 - 1651z	02 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1932 - 1933z	02 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1437 - 1438z	03 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1813 - 1814z	03 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1641 - 1642z	04 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2038 - 2039z	04 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1211 - 1212z	05 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1537 - 1538z	05 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1901 - 1902z	05 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2151 - 2152z	05 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1207 - 1208z	06 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1306 - 1307z	08 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1938 - 1939z	08 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2128 - 2129z	08 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1232 - 1233z	09 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1503 - 1504z	09 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1953 - 1954z	09 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1027 - 1028z	10 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1529 - 1530z	10 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1938 - 1939z	10 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2130 - 2131z	10 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1306 - 1307z	11 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1432 - 1433z	11 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1932 - 1933z	11 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1225 - 1226z	12 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1257 - 1258z	14 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1849 - 1850z	15 Sat	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1209 - 1210z	18 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1433 - 1434z	18 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1255 - 1256z	19 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1446 - 1447z	19 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1559 - 1600z	19 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1845 - 1846z	19 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1235 - 1236z	20 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1143 - 1144z	21 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1641 - 1642z	21 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1731 - 1732z	21 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1956 - 1957z	21 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1105 - 1119z	23 Sep	(In tfc - 4 fig - mostly U/R) V GKVZ (x3)DE Q7NW (x2) (Cont'd)	JPL	SUN
	1207 - 1208z	24 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd)(GT Hong Kong)	JPL	MON
	1452 - 1453z	24 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd)(GT Hong Kong)	JPL	MON
	1033 - 1034z	26 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1629 - 1630z	26 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1732 - 1733z	26 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2115 - 2116z	26 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2054 - 2055z	28 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2212 - 2213z	28 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2118 - 2119z	29 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1528 - 1529z	30 Sep	(In tfc - mostly U/R) V GKVZ (x3) DE Q7NW x2) (Cont'd)	JPL	SUN
	2003 - 2004z	30 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN

3797//4512					
(3797 only)	1154 - 1156z	01Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1310 - 1311z	01 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1608 - 1609z	01 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1441 - 1442z	03 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(3797 only)	1817 - 1818z	03 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4512 only)	1708 - 1709z	04 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	2040 - 2041z	04 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1213 - 1214z	05 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1541 - 1542z	05 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1903 - 1904z	05 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	1308 - 1309z	08 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1942 - 1943z	08 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1236 - 1237z	09 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1507 - 1508z	09 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1955 - 1956z	09 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1531 - 1532z	10 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1940 - 1941z	10 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2132 - 2133z	10 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4512 only)	1430 - 1431z	11 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	1345 - 1346z	12 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1851 - 1852z	15 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(3797 only)	1211 - 1212z	18 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(3797 only)	1437 - 1438z	18 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1255 - 1255z	19 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1448 - 1449z	19 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1601 - 1602z	19 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	1847 - 1848z	19 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1237 - 1238z	20 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	1203 - 1204z	21 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	1643 - 1718z	21 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	1736 - 1747z	21 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	1958 - 2005z	21 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1103 - 1104z	23 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1209 - 1210z	24 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1454 - 1455z	24 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1633 - 1634z	26 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1734 - 1736z	26 Sep	(UGT COMM msg - mostly U/R) VH2FL (x3) DE DRV8 (x2) (Cont'd)	JPL	WED
	2126 - 2127z	26 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2056 - 2057z	28 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	2216 - 2217z	28 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2125 - 2126z	29 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1111 - 1112z	30 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1530 - 1531z	30 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2005 - 2006z	30 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
4225//5500	1131 - 1132z	01 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1304 - 1305z	01 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1600 - 1601z	01 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2339 - 2340z	01 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1307 - 1319z	02 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1646 - 1647z	02 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1928 - 1929z	02 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2330 - 2331z	02 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1048 - 1103z	03 Sep	(In tfc) V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	MON

(1048z) /Z37/19. EEEEE
VV TC1 UGT COMM BT .130/0200/Z37/1951 AR
VV TC2 UGT COMM BT 7568/0300/Z37/1951 AR
VV TC2 UGT COMM BT 7568/0300/D35/1951 AR
VV TC3 7G NR 01/CCK CK 25 37 0903 0430 RMKS 1951 TO 5451/7173/7230/7202/2582/1231/7732/1268 AR
VV TC3 7G NR 01/CCK CK 25 37 0903 0430 RMKS 1951 TO 5451/7173/7230/7202/2582/1231/7732/12
EEEE RMKS 1951 TO 5451/7173/7230/ EEEEE7 EEEE RMKS EEEEE RMKS 1951 TO 5451/7173/7230/7202/2582/1231/7732/1268 AR
VV TC4 UGT COMM BT 7126/0925/G42/1957 AR
VV TC4 UGT COMM BT 7126/0925/G42/1957 AR
VV TC5 UGT COMM BT 7386/1020/G42/1957 AR
VV TC5 UGT COMM BT 7386/1020/G42/1957 AR
VV TC6 UGT COMM BT 73 (Lost audio) 2/1957 AR (Lost audio again)
(1100z) VV TC7 UGT COMM BT 7262/1540/Z32/1951 AR (Return to R/S 1100z)

	1433 - 1434z	03 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1826 - 1827z	03 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1841 - 1904z	03 Sep	(Silent - Msg sent) V 7NPE (x3) DE QV5B(x2) (Cont'd) (GT Hong Kong)	JPL	MON

(Silent – 1841z) VV UGT COMM BT BT 7751/0310/Z32/1951 AR (1842z)
VV UQ EEE UGT COMM BT 7751/0310/Z32/1951 AR (1843z)
(1844z) (Return to R/S 1844Z)

	1011 - 1012z	04 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	1635 - 1636z	04 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	2034 - 2035z	04 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	1205 - 1206z	05 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	WED
	1533 - 1534z	05 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	WED
	1857 - 1858z	05 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	WED
	2149 - 2150z	05 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	WED
	2246 - 2247z	07 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	FRI

(5500 only)	1228 - 1229z	09 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1459 - 1500z	09 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	SUN
	1949 - 1950z	09 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	SUN
	1018 - 1019z	10 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	MON
	1525 - 1526z	10 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	MON
	1932 - 1933z	10 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	MON
	1243 - 1244z	11 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	1928 - 1929z	11 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	2259 - 2300z	11 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	1316 - 1323z	12 Sep	(In chat) (Mostly U/R - Very weak) (GT Hong Kong)	JPL	WED
		NOTE: Both 4225 and 5500 QV5B markers have been silent since monitoring at 1150z 12 Sep.			
	1103 - 1104z	15 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1845 - 1846z	15 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
		Note: Round Slip unusually fast - about 30WPM			
(5500 only)	1203 - 1204z	18 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1429 - 1430z	18 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5500 only)	1251 - 1252z	19 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1442 - 1443z	19 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1555 - 1556z	19 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1841 - 1842z	19 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	2247 - 2248z	19 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1228 - 1229z	20 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5500 only)	1137 - 1138z	21 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5500 only)	1635 - 1636z	21 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5500 only)	1727 - 1728z	21 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5500 only)	1952 - 1953z	21 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5500 only)	1008 - 1009z	22 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	1054 - 1055z	23 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5500 only)	1201 - 1202z	24 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1446 - 1447z	24 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JP L	MON
(5500 only)	2325 - 2326z	25 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
Note: 5500 monitored several times between 2306z and 2325z but N/H. When heard on 5500, checked 4225 (N/H), then returned to 5500 where now N/H. Switched to night freq of 8110.					
	1036 - 1037z	26 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1625 - 1626z	26 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1728 - 1729z	26 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4225 only)	2113 - 2114z	26 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4225 only)	2050 - 2051z	28 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4225 only)	2208 - 2209z	28 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2114 - 2115z	29 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1105 - 1106z	30 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1525 - 1526z	30 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1959 - 2000z	30 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
4590//7607	1128 - 1129z	01 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1306 - 1307z	01 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1602 - 1603z	01 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2342 - 2343z	01 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1046 - 1054z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1154 - 1155z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1455 - 1456z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1648 - 1649z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1930 - 1931z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1435 - 1436z	03 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1811 - 1812z	03 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1637 - 1638z	04 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4590 only)	2036 - 2037z	04 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1209 - 1210z	05 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1535 - 1536z	05 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1859 - 1900z	05 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1202 - 1203z	06 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	2248 - 2249z	07 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1304 - 1305z	08 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1936 - 1937z	08 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2126 - 2127z	08 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1230 - 1231z	09 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1501 - 1502z	09 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1951 - 1952z	09 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1527 - 1528z	10 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1934 - 1935z	10 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1245 - 1246z	11 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1930 - 1931z	11 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	2301 - 2302z	11 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1151 - 1152z	12 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1231 - 1232z	12 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1400 - 1401z	12 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1253 - 1254z	14 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2015 - 2016z	14 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1105 - 1106z	15 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1847 - 1848z	15 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1205 - 1206z	18 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1431 - 1432z	18 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1444 - 1445z	19 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1557 - 1558z	19 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED

(7607 only)	1843 - 1844z	19 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	2249 - 2250z	19 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1231 - 1232z	20 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1139 - 1140z	21 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1637 - 1638z	21 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1729 - 1730z	21 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1954 - 1955z	21 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1057 - 1058z	23 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1205 - 1206z	24 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1448 - 1449z	24 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1627 - 1628z	26 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1730 - 1731z	26 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	2115 - 2116z	26 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	2052 - 2053z	28 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	2210 - 2211z	28 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2116 - 2117z	29 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1527 - 1527z	30 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2001 - 2002z	30 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
4860// 6840	1323 - 1328z	01 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
			Note: Sked started 3 minutes late which is unusual.		
	1620 - 1625z	01 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1321 - 1326z	02 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1920 - 1925z	02 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1819 - 1824z	03 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1721 - 1726z	04 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1320 - 1325z	08 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2120 - 2125z	08 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2020 - 2025z	09 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1519 - 1524z	10 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
			Note: Monitored NYZ on 4860 / 6840 / 10640 at 2120 until 2126 - N/H - Very unusual		
	1420 - 1425z	12 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1919 - 1924z	15 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GTs Hong Kong)	JPL	SAT
	1319 - 1324z	19 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1920 - 1925z	19 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1719 - 1724z	21 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1619 - 1624z	26 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2119 - 2124z	26 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2219 - 2224z	28 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	2119 - 2124z	29 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	2020 - 2025z	30 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
5230//3642					
(5230 only)	1606 - 1607z	01 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	1459 - 1500z	02 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1652 - 1653z	02 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1934 - 1935z	02 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1439 - 1440z	03 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1815 - 1816z	03 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1639 - 1640z	04 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1539 - 1540z	05 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	1940 - 1941z	08 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	2130 - 2132z	08 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	1505 - 1506z	09 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1936 - 1937z	10 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1432 - 1433z	11 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1934 - 1935z	11 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1347 - 1348z	12 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	1435 - 1436z	18 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1603 - 1604z	19 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	1639 - 1640z	21 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5230 only)	1733 - 1734z	21 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5230 only)	1450 - 1451z	24 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1631 - 1632z	26 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	1733 - 1734z	26 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	2117 - 2118z	26 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	2114 - 2215z	28 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
5278// NRH	1010 - 1011z	02 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1107 - 1108z	03 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1016 - 1017z	04 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1109 - 1110z	15 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1101 - 1102z	23 Sep	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2310 - 2312z	25 Sep	(In tfc - 4 fig cut nrs - Probably Q7NW)(Tue) (GT Hong Kong)	JPL	TUE
5801//10180					
(10180 only)	1126 - 1127z	01 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10180 only)	1008 - 1009z	02 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10180 only)	1044 - 1045z	03 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1207 - 1208z	05 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1205 - 1206z	06 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1234 - 1235z	09 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10180 only)	1031 - 1032z	10 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON

(10180 only)	1255 - 1256z	14 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1410 - 1411z	14 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	1107 - 1108z	15 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1207 - 1208z	18 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1253 - 1254z	19 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10180 only)	1233 - 1234z	20 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1141 - 1142z	21 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	1059 - 1100z	23 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1203 - 1204z	24 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10180 only)	1026 - 1027z	26 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10180 only)	1109 - 1110z	30 Sep	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
6773//8040	1135 - 1154z	01 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1012 - 1013z	02 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(8040 only)	1102 - 1104z	03 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(8040 only)	2254 - 2255z	07 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(6773 only)	1029 - 1030z	10 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1111 - 1112z	15 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2311 - 2312z	15 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(8040 only)	1144 - 1202z	21 Sep	(In tfc) (GT Hong Kong)	JPL	FRI
		(1144z)	(In 4 fig tfc – rough copy)(Freq normally used by DRV8) D7T3 U7N4 AU47 6N7T 6U3N UN5D ARMT....(Fading) 3N.6 A36N A47T 3NU7 ..3DT N7T3 N4U5 ..5 63.D 7..3 74T3 AU57 5... 5AN4 36TA U.U4 75D6 4AN7 N7U 5NU4 7 .... 635U 74AN .3TA 46N5 .5T6 T7UD 637T A6TN 47DU 7.T3 67TA UA4N UDA5 U.... DN4U III BT 3DT. AR BT MD6. ..U3T5 U5.A 7T...T347 T3UN 6.. UA3N UT53 N7U5 ..... U5TN U657 T47N 75AU 54.D U5DN TN3A ..DA N7T3 TN..... NUD3 45D7 TND6 U3A4 34DT ...3T6 A.... 63A4 U5.. 4T.....		
		(1158z)	(Fading badly now – mostly U/R – 1155z) AR (1158z) (Silent)(Monitored until 1202z)		
(8040 only)	1014 - 1020z	22 Sep	(In chat) (// 6773 has DVR8 R/S) (GT Hong Kong)	JPL	SAT
		(1014Z)	RPT 91W R 77W K 77W R 43W R 24W R 16W R FM R 10W AGN R 2W 85W R 057W R 49W R 32W R 11W (1016z) R 1W EEEE 1P 95W R 73W R 55W 39W FM FM 38W 27W AGN R 9W 9W R QSL EEEEE QSL 1822 K (1020z) R (Other station appears to be on same freq, but extremely weak)		
		(1020z)	(Unable to monitor any further – Gone fishing! – 1020z)		
(6773 only)	1013 - 1014z	22 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1052 - 1053z	23 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1004z	24 Sep	H2FD DE DRV8. (Direct reception - S Australia)	EW	MON
(8040 only)	2308 - 2309z	25 Sep	V H2FL (x3) D E DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1010 - 1018z	26 Sep	V H2FL (x3) DE DRV8 (x2) (Cont'd) (//8040) (GT Hong Kong)	JPL	WED
6840//10640	0120 - 0125z	01 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1120 - 1125z	01 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	0020 - 0025z	02 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1021 - 1026z	02 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1020 - 1025z	03 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	0021 - 0026z	04 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1021 - 1026z	04 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1220 - 1225z	05 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2319 - 2324z	07 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	0220 - 0225z	09 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1019 - 1024z	10 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
		Note: Monitored NYZ on 4860 / 6840 / 10640 at 2120 until 2126 - N/H - Very unusual			
	0320 - 0325z	11 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	0219 - 0224z	12 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1220 - 1225z	1 2 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1020 - 1025z	15 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1220 - 1225z	18 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	0220 - 0225z	19 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1120 - 1725z	23 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	0220 - 0225z	24 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1220 - 1225z	24 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	2320 - 2325z	25 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1020 - 1025z	26 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1120 - 1125z	30 Sep	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
7582//8110					
(8110 only)	0128 - 0129z	01 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	0014 - 0015z	02 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0204 - 0205z	02 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0026 - 0031z	04 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	0148 - 0151z	09 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	SUN
(7582 only)	0230 - 0231z	11 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	0237 - 0238z	11 Sep	V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	TUE
	0212 - 0213z	12 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0122 - 0123z	16 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0242 - 0243z	18 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	0211 - 0212z	19 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(8110 only)	0236 - 0237z	23 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(8110 only)	0214 - 0215z	24 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	0241 - 0242z	24 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(8110 only)	2327 - 2337z	25 Sep	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE

8789//10779

(10779 only)	0131 - 0132z	01 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 only)	0206 - 0207z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1014 - 1015z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1030 - 1046z	02Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2332 - 2333z	02 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1036 - 1040z	03 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1105 - 1106z	03 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	0056 - 0057z	04 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1013 - 1014z	04 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	0152 - 0153z	09 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10779 only)	1025 - 1026z	10 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10779 only)	0232 - 0233z	11 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	0214 - 0215z	12 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0128 - 0129z	15 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2309 - 2310z	15 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 only)	0124 - 0125z	16 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10779 only)	0245 - 0246z	18 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	0213 - 0214z	19 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1010 - 1011z	22 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(8789 only)	1010z	24 Sep	WITN DE GNXG (Direct reception - S. Australia)	EW	MON
(10779 only)	2306 - 2307z	25 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1028 - 1029z	26 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10779 only)	1050z	27 Sep	WITN DE GNXG. Off at 1050 UTC. (Direct reception - S. Australia)	EW	THU
(10779 only)	1107 - 1108z	30 Sep	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN

October 2012

GT = Global Tuners (Online remotely controlled receivers)

3297// NRH	1259 - 1300z	01 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1751 - 1752z	01 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2133 - 2134z	01 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2157 - 2158z	02 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1227 - 1228z	04 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1334 - 1335z	04 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2203 - 2204z	04 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1411 - 1412z	05 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1527 - 1528z	05 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1806 - 1807z	05 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1949 - 1950z	05 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1217 - 1218z	06 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1527 - 1528z	06 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1933 - 1934z	06 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	2046 - 2047z	07 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1103 - 1104z	08 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1401 - 1402z	08 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1736 - 1737z	08 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1944 - 1945z	08 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2207 - 2208z	08 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1257 - 1258z	09 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1347 - 1348z	09 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1715 - 1716z	09 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2009 - 2010z	09 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2127 - 2128z	09 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1431 - 1432z	14 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1538 - 1539z	14 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1753 - 1754z	14 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2029 - 2030z	14 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2139 - 2140z	15 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1630 - 1631z	17 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2146 - 2147z	17 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
3797//4512	1301 - 1302z	01 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1344 - 1345z	01 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1755 - 1756z	01 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2135 - 2136z	01 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1230 - 1231z	04 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1337 - 1338z	04 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2159 - 2200z	04 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1206 - 1207z	05 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1413 - 1414z	05 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1525 - 1526z	05 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1804 - 1805z	05 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1945 - 1946z	05 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1219 - 1220z	06 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1531 - 1532z	06 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1937 - 1938z	06 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1517 - 1519z	07 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1746 - 1747z	07 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	2048 - 2119z	07 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	2126 - 2159z	07 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4512 only)	1405 - 1406z	08 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1740 - 1741z	08 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1948 - 1949z	08 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON

	1301 - 1302z	09 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1351 - 1352z	09 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1717 - 1718z	09 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2011 - 2012z	09 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	2127 - 2128z	09 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1432 - 1433z	14 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1540 - 1541z	14 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1755 - 1756z	14 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2031 - 2032z	14 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(3797 only)	2141 - 2142z	15 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4512 only)	1634 - 1635z	17 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	2148 - 2149z	17 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4512 only)	1704 - 1705z	18 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2007 - 2008z	19 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1237 - 1238z	20 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1403 - 1404z	20 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(4512 only)	1208 - 1209z	22 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1805 - 1806z	23 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	1934 - 1935z	23 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	2033 - 2034z	23 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4512 only)	1711 - 1712z	25 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4512 only)	1634 - 1635z	26 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(4512 only)	1830 - 1831z	26 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
4225//5500	1255 - 1256z	01 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1345 - 1407z	01 Oct	(Msg sent at 1402z) V 7NPE (x3) DE QV5B(x2) (Cont'd)	JPL	MON
		(1402z)	VVV UGT COMM BT 2878/2300/6NN 7918 AR (1402z) VVV UGT COMM BT 2878/2300/N5 EEEE VVV UGT COMM BT 2878/2300/N5 EEEE		
		(1404z)	UGT COMM BT 2878/2300/6/7 918 AR AR (Return to R/S 1404z)		
	1736 - 1748z	01 Oct	(Msg sent at 1736z) V 7NPE (x3) DE QV5B(x2) (Cont'd)	JPL	MON
		(1736z)	(In tfc) 9/2226 MSG NR 02/CK CK 25 37 1002 0125 RMKS 8398 TO 8391/2859/8648/2886/9098/2916/2969/2226 BT FM BT BT 3046 50= 5N EEEE 30QTR BT BT 3046 5N5N DTDN 3676 D57T 37ND A5NA 656A TANN TTUD		
		(1740z)	6T4U U63D 6T36 D74T 63.5 UA63 6NUT D6N7 6A.. 76.6 4D46 D3.T 7N.N DA3U D6TU AR (Return to R/S – 1740z)		
		(1741z)	UGT COMM BT 2698/02.0/Z46/8398 AR VVV UGT COMM BT 298/8020/ EEEE BT		
		(1742z)	UGT COMM BT 28/000/Z4/8398 AR VVV UGT COMM BT 28/00/Z4/98 AR (Return to R/S - 1742z)		
	1757 - 1832z	01 Oct	(Msg sent at 1802z) V 7NPE (x3) DE QV5B(x2) (Cont'd)	JPL	MON
		(1802z)	COMM BT VVV UGT COMM BT 2908/0300/9/7918 AR UGT COMM BT 2908/0300/9/7918 AR		
		(1803z)	UGT COMM BT 2908/0300/9/7918 AR (Return to R/S – 1803z)		
	2129 - 2130z	01 Oct	V 7NPE (x3) DE QV5B(x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	2153 - 2154z	02 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1042 - 1043z	03 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2218 - 2219z	03 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2337 - 2338z	03 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0950 - 0951z	04 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1159 - 1220z	04 Oct	(tfc sent) V 7NPE (x3) DE QV5B (x2)(Cont'd)	JPL	THU
		(1200z)	(In chat – hand sent - running letters together) VV 7G NR 06/CCK CK 25 37 10004 2000 RMKS 8398 TO .647/2879/2820/2.75/2.58 7G NR 06/CCK CK 25 37 2004 2000 RMKS 8398 TO 2647/2879 2EEEE 7GN 97EEE 7GNR 06 NR CK .K 25 37 1004 2000 RMKS 8398 TO 2647/2879/2820/2475/2458 BT .... 3T5T NU4U U4.. (Cont'd)		
		(1203z)	AR AR (1203z) (Return to R/S 1203z)		
		(1206z)	VV UGT COMM BT 243./2035/Z.2/8398 AR (1206z)		
		(1207z)	VV UGT COMM BT 2436/2035/Z42/8398 AR (1207z) (Return to R/S – 1207z)		
	1330 - 1331z	04 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2205 - 2219z	04 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1149 - 1157z	05 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
		(In R/S -1149z)	VV VV UGT COMM BT 8671/2040/08/8398 AR (1151z) VV VV UGT COMM BT 8671/2040/08/8398 AR VV VV UGT COMM BT 8671/2040/8 EEE VV VV UGT COMM BT 8671/2040/08/8398 AR		
		(Return to R/S -1155z)	VV VV UGT COMM BT 8671/2040/08/8398 AR AR AR		
	1414 - 1419z	05 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1533 - 1540z	05 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1811 - 1819z	05 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1953 - 1954z	05 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1035 - 1036z	06 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1213 - 1214z	06 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1523 - 1524z	06 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1929 - 1930z	06 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1511 - 1512z	07 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	07 Oct 12 17z	07 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	07 Oct 12 17z	07 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (CQ Msg sent)	JPL	SUN
		(1747z)	(In R/S) HR CQ GA (x2) (1747z) 7G/03/KCK CK 25 37 1008 0145 RMKS 8398 TO 9098/29EEE4/EEE2147/2888/2838/8648/2248/2647		

NR 03//CK CK 25 37 1008 0145 RMKS 8398 TO 9098/2964/2147/2888/2838/8648/2248/2647 BT BT BT
(1750z) U5.4 NDT. D674 7T53 .UDA 363A 4UUN A7UD TND AT4. .... (Cont"d) AR AR (1750z – Return to R/S)

	1055 - 1056z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1407 - 1419z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1426 - 1440z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1732 - 1733z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1940 - 1941z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2203 - 2204z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4225 only)	1252 - 1254z	09 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1343 - 1344z	09 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1711 - 1712z	09 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1727 - 1819z	09 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	2005 - 2006z	09 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1425 - 1426z	14 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4225 only)	1751 - 1752z	14 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2240 - 2241z	14 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1134 - 1135z	17 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1628 - 1629z	17 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	2313 - 2314z	17 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1618 - 1619z	18 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4225 only)	2029 - 2030z	18 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5500 only)	1131 - 1132z	19 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1357 - 1358z	19 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5500 only)	1026 - 1027z	22 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	1204 - 1205z	22 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5500 only)	2226 - 2227z	22 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4225 only)	1126 - 1127z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1537 - 1538z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1728 - 1729z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1928 - 1929z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	2229 - 2230z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4225 only)	1155 - 1156z	24 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(4225 only)	1736 - 1737z	24 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5500 only)	1705 - 1706z	25 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5500 only)	2350 - 2351z	25 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1626 - 1627z	26 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1825 - 1826z	26 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
4590//7607	1257 - 1258z	01 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1341 - 1342z	01 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1749 - 1750z	01 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2131 - 2132z	01 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(4590 only)	2155 - 2156z	02 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	2227 - 2228z	03 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1225 - 1226z	04 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1332 - 1333z	04 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	2156 - 2157z	04 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1200 - 1201z	05 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1406 - 1407z	05 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1531 - 1532z	05 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1809 - 1810z	05 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1951 - 1952z	05 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1215 - 1216z	06 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1525 - 1526z	06 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1931 - 1932z	06 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1513 - 1514z	07 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	1742 - 1743z	07 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	2044 - 2045z	07 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1359 - 1400z	08 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1734 - 1735z	08 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1942 - 1943z	08 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2205 - 2206z	08 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1255 - 1256z	09 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	1345 - 1346z	09 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7607 only)	2007 - 2008z	09 Oct	H WUN (x3) DE G6G (x2) (Cont'd) (GT Hong Kong) *(R/S appears to be hand sent - Eqpt problems?)*	JPL	TUE
(7607 only)	2125 - 2126z	09 Oct	H WUN (x3) DE G6G (x2) (Cont'd) (GT Hong Kong) *(R/S appears to be hand sent - Eqpt problems?)*	JPL	TUE
(4590 only)	1427 - 1428z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1537 - 1538z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4590 only)	1755 - 1818z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(4590 only)	2027 - 2028z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2242 - 2243z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(7607 only)	2137 - 2138z	15 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7607 only)	1136 - 1137z	17 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1636 - 1637z	17 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	2004 - 2005z	19 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	2025 - 2105z	19 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1147 - 1148z	20 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(7607 only)	1359 - 1400z	20 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1130 - 1131z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1539 - 1540z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1730 - 1731z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE

	1809 - 1810z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1930 - 1931z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2031 - 2032z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(4590 only)	2232 - 2233z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1159 - 1200z	24 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1553 - 1554z	24 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1738 - 1739z	24 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2127 - 2128z	24 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7607 only)	1707 - 1708z	25 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(4590 only)	2112 - 2113z	25 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7607 only)	1628 - 1629z	26 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(7607 only)	1827 - 1828z	26 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
4860// 6840	2220 - 2225z	02 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2220 - 2225z	03 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2321 - 2326z	03 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1220 - 1225z	04 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	2220 - 2225z	04 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1420 - 1425z	05 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1520 - 1525z	05 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1820 - 1825z	05 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	1220 - 1225z	06 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SAT
	1520 - 1525z	07 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1420 - 1425z	08Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	2220 - 2225z	08 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1722 - 1727z	09 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
			Note: Late start - unusual		
	1820 - 1825z	09 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2019 - 2024z	09 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
			Note: Signal on 4860 just barely audible. Normally has a good loud signal.		
	1420 - 1425z	14 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1820 - 1825z	14 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	1420 - 1425z	17 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2320 - 2325z	17 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1620 - 1625z	18 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1720 - 1725z	18 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	0020 - 0025z	19 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	2020 - 2025z	19 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
	2220 - 2225z	22 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
(6840 only)	0020 - 0025z	23 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1120 - 1125z	23 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1820 - 1825z	23 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1920 - 1925z	23 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	2020 - 2025z	23 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	TUE
	1220 - 1225z	24 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	2122 - 0227z	25 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
	1620 - 1625z	26 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	FRI
(6840 only)	1620z	28 Oct	VVV Q2M Q2M Q2M DE NYZ NYZ	FN	SUN
5230//3642					
(5230 only)	1753 - 1754z	01 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1037 - 1039z	03 Oct	(In chat - barely auditable - freq normally used by 3A7D)	JPL	WED
(5230 only)	2231 - 2232z	03 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	2201 - 2202z	04 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5230 only)	1409 - 1410z	05 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5230 only)	1529 - 1530z	05 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5230 only)	1808 - 1809z	05 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5230 only)	1947 - 1948z	05 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(5230 only)	1529 - 1530z	06 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	1935 - 1936z	06 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	1515 - 1516z	07 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1744 - 1746z	07 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1403 - 1404z	08 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1738 - 1739z	08 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1946 - 1947z	08 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	2209 - 2210z	08 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only	1259 - 1300z	09 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1349 - 1350z	09 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1713 - 1714z	09 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(5230 only)	1429 - 1430z	14 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1753 - 1754z	14 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(5230 only)	1632 - 1633z	17 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(5230 only)	1627 - 1628z	18 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5230 only)	1706 - 1707z	18 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(5230 only)	1401 - 1402z	20 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(5230 only)	2228 - 2229z	22 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(5230 only)	1709 - 1710z	25 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
5278// NRH	1103 - 1104z	02 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	0957 - 0958z	04 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1204 - 1205z	05 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1043 - 1044z	06 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1744 - 1745z	07 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	SUN

	1140 - 1141z	17 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1136 - 1137z	22 Oct	V GKVZ (x3) DE Q7NW (x2) (Cont'd) (GT Hong Kong)	JPL	MON
5801//10180					
(10180 only)	1059 - 1100z	02 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10180 only)	1028 - 1029z	03 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10180 only)	0955 - 0956z	04 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(10180 only)	1202 - 1203z	05 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(10180 only)	1039 - 1040z	06 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10180 only)	1059 - 1100z	08 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10180 only)	1138 - 1139z	17 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10180 only)	1030 - 1031z	22 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10180 only)	1206 - 1207z	22 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10180 only)	1132 - 1133z	23 Oct	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
6773//8040	1101 - 1102	02 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(6773 only)	1035 - 1036z	03 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2229 - 2230z	03 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(6773 only)	0959 - 1000z	04 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	1041 - 1042z	06 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1101 - 1102z	08 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(6773 only)	2211 - 2212z	08 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	2246 - 2247z	14 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2339 - 2340z	14 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	1142 - 1143z	17 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(8040 only)	1034 - 1035z	22 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1134 - 1135z	23 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2235 - 2236z	23 Oct	V H2FL (x3) DE DRV8 (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
6840//10640	0320 - 0325z	01 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	0120 - 0125z	03 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	1020 - 1025z	03 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	0221 - 0226z	08 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	0120 - 0125z	14 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	SUN
	0220 - 0225z	22 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	1020 - 1025z	22 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	MON
	0220 - 0225z	24 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	WED
	0320 - 0225z	25 Oct	VVV (x3) Q2M DE NYZ (x2) QSA ? K (R5) (GT Hong Kong)	JPL	THU
7582//8110	0326 - 0327z	01 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	0130 - 0136z	02 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1055 - 1056z	02 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	0114 - 0117z	03 Oct	(In tfc) V 7NPE (x3) DE QV5B (x2)(Cont'd) (GT Hong Kong)	JPL	WED
		(0114z)	(In tfc) /Z46/8398 AR VVVV UGT COMM BT BT 2088/0930/Z46/8398 AR AR VVVV UGT COMM BT 2088/0930/Z46/8398 AR AR AR		
		0115z)	(Return to R/S – 0115z)		
	1017 - 1018z	03 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(8110 only)	0139 - 0140z	06 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	0204 - 0219z	08 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	0040 - 0041z	14 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0125 - 0130z	14 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2333 - 2334z	14 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	0340 - 0341z	15 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	0027 - 0028z	17 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	0348 - 0349z	18 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	0012 - 0013z	19 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	2343 - 2344z	19 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	0345 - 0346z	20 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	0140 - 0141z	22 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7582 only)	0226 - 0227z	22 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(7582 only)	0017 - 0018z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(7582 only)	0136 - 0140z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (UGT COMM Msg sent)	JPL	TUE
			VV UGT COMM BT 2676/1005/Z46/8398 AR AR (x2) (0136z) (Return to R/S – 0139z)		
(7582 only)	0302 - 0316z	23 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(8110 only)	0207 - 0210z	24 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(7582 only)	0313 - 0314z	25 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(7582 only)	0405 - 0406z	25 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	THU
	2351 - 2352z	26 Oct	V 7NPE (x3) DE QV5B (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
8789//10779					
(10779 only)	0137 - 0138z	02 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	1057 - 1058z	02 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	0118 - 0119z	03 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	1026 - 1027z	03 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
	2340 - 2341z	03 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10779 only)	0141 - 0142z	06 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
	1037 - 1038z	06 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 only)	0202 - 0203z	08 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1057 - 1058z	08 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON

(10779 only)	0042 - 0043z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
	2335 - 2336z	14 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SUN
(10779 only)	0030 - 0031z	17 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(8789 only)	2315 - 2316z	17 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10779 only)	0014 - 0015z	19 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
(8789 only)	2345 - 2346z	19 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI
	1133 - 1134z	20 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	SAT
(10779 only)	0142 - 0143z	22 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10779 only)	0228 - 0229z	22 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
	1028 - 1029z	22 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	MON
(10779 only)	0026 - 0027z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	0141 - 0142z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
(10779 only)	0258 - 0259z	23 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	TUE
	2336 - 2337z	24 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	WED
(10779 only)	2352 - 2353z	25 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	THU
(8789 only)	2353 - 2354z	26 Oct	V WITN (x3) DE GNXG (x2) (Cont'd) (GT Hong Kong)	JPL	FRI

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 Recently allocated as M97. 10375kHz Starts 1453 - 1500z (Variable) .

10375	1458 - 1525z	12 - 30 Sep	Msg SD75 SN80 reported on 12, 17,18, 20, 24, 25,26 Sep. All other days NRH	BR/GD
10375	1458 - 1525z	01 - 15 Oct	Msg SD75 SN80 reported on 02, 08, 15Oct All other days NRH	BR/GD
	1458 - 1509z	15 - 17 Oct	Msg SD75 SN80 reported on 16, 17 Oct (One msg sending only) All other days NRH	BR/GD
	1500 - 1519z	18 Oct	Msg SD76 SN50 New msg heard via GlobalTuners Hong Kong	BR
	1500 - 1519z	19 - xx Oct	Msg SD76 SN50 reported on 19, 23,25 Oct All other days NRH	BR

Note the change in header: Previously HT was sent following the msg number (SD), on the latest msg this has been replaced by TK.

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. Towards the middle of October the signal in S.E. England has improved considerably and copy is now possible.

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

SD75 KKK SD75 KKK SD75 KKK HT HT HT

SN80 SN80 SN80

72943 83767 67862 11203 46269
87099 48778 32632 31306 63889
14017 37542 27792 94695 92031
20635 52465 30987 02658 52341
30218 97523 64431 06043 34750
83697 16774 02338 24993 19775
85206 70351 98658 75300 70452
41860 67069 39781 12995 48495
24424 75746 75962 89557 39325
40544 17032 72914 46282 46066
55374 19667 52299 96353 53284
88550 67574 87513 46272 98172
84535 95737 93573 82980 02537
35814 66603 15166 78595 89677
72114 74688 72794 96212 68616
38907 28714 29697 19966 31163

KKKKKKKKKKKKKKKKKKKKKKKKK
Courtesy BR

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

SD76 KKK SD76 KKK SD76 KKK TK TK TK

SN50 SN50 SN50

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

KKKKKKKKKKKKKKKKKKKKKKKKK
Courtesy BR

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

[with M08a and V02a]

5800	0600z	04 Sep	[10411 74442 06172] Msg sent 12mins only, then into SK01. Fair, QSB3	PLdn	THU
5898	0520z	16 Sep	A 40sec. data burst was sent, repeated every few minutes for the remainder of the hour.	Ggs	SUN
	0500z	30 Sep	Data burst every 5 min	Ggs	SUN
8186	1008z	04 Sep		Ggs	TUE
	1000z	25 Sep	QRN5	Ggs	TUE
	0900z	23 Oct	QSA5	HT	TUE
9063	0900z	26 Sep		Ggs	WED
9124	0600z	02 Sep		Ggs	SUN

Contributors AB, ATC, BR, DanAR, DoK, E2kde Meeting, EW, FN, GD, Ggs, Hans, HFD, HT, JPL, Manolis, PLdn, RNGB, Spectre, tiNG.
Thank you all for your logs.

VOICE STATIONS

E06 [1A]
We start with PoSW's analytical log for both Sept and Oct, then onto RNGB and thence to 'others':

First + Third Thursdays in the Month 2030 UTC Schedule:-
6-Sept-12:- 5,189 kHz, calling "891", DK/GC "534 534 15 15". Strong signal with good audio, none of the "rasping" type distortion sometimes present on these half-hour start transmissions in the past. Seasonal change of frequency from the usually unreadable spot underneath a broadcast station in the 49 metre band used in the summer months.

20-Sept-12:- 5,189 kHz, "891" and "534 534 15 15" again, good signal.

4-Oct-12:- 5,189 kHz, call "891", DK/GC "490 490 15 15", S9 signal with good audio.

Friday Following the First + Third Thursdays in the Month 2130 UTC Schedule:-
7-Sept-12:- 5,197 kHz, seasonal change from the 5,731 of summer, call "634", DK/GC "030 030 15 15". Came with the rasping noise on the speech sometimes noted in the past.

21-Sept-12:- 5,197 kHz, call "634", DK/GC "030 030 15 15", S9 signal with no distortion.

5-Oct-12:- 5,197 kHz, call "634", DK/GC "617 617 15 15".

19-Oct-12:- 5,197 kHz, "634" and "617 617 15 15".

First + Third Thursdays in the Month 0500 + 0600 UTC Schedule:-
Clean forgot to look for this one on the first Thursday in September, the 6th. - but managed to find the next day repeat:-
7-Sept-12, Friday:- 0500 UTC, 12,210 kHz, calling "354", weak signal, DK "869", dip in the signal prevented copy of the group count.
0600 UTC, 14,830 kHz, second sending, strength S5 to S6, DK/GC "869 869 102 102".

20-Sept-12, :- 0500 UTC, 12,210 kHz, call "354", very weak signal, unreadable.
Unable to find 0600z sending on 14,830, probably way down in the noise.

21-Sept-12, Friday:- 0500 UTC, 12,210 kHz, stronger than yesterday although only about S5 at best, "354" and "869 869 102 102".
0600 UTC, 14,825 kHz, second sending, weak but clear signal.

4-Oct-12:- unable to find a sending at 0500 UTC, found the 0600 UTC on a surprisingly high frequency:-
0609 UTC, 16,320 kHz, E06 in progress, presumably the second sending unless it has done a seasonal one – hour shift which would be unusual for E06. Strength S7, has moved up the band then, had been moving down in frequency as the hours of daylight shorten and we move towards winter.

5-Oct-12, Friday:- 0600 UTC, 16,320 kHz, call "186", DK/GC "253 253 104 104", S5 to S6. Still unable to find a transmission at 0500 UTC.

18-Oct-12:- 0600 UTC, 16,320 kHz, "186" and "253 253 104 104", S5 to S6.

19-Oct-12:- 0600 UTC, 16,320 kHz, next day repeat, no sign of a sending at 0500z
despite a lot of tuning around, presumably would have been a couple of MHz or so lower in frequency somewhere between the 21 metre and 19 metre BC bands.

Second Wednesday in the Month 1920 + 2020 UTC Schedule:-
Missed this one in September, remembered to search for it in October:-
10-Oct-12:- 4,615 kHz, found a couple of minutes into the transmission, "154 154 154 00000", S9 signal. This frequency was used in April of this year with 3,704 kHz for the repeat.
2020 UTC, 3,704 kHz, - well there you are, then - second sending inside the 80 metre amateur band, although not many stations around. I tuned a receiver to 3,704 at around 1935 UTC to see if there was a pre-transmission warm-up routine and heard the G06 YL voice speaking a few numbers in German followed by the E06 OM.

Sunday Following the Second Wednesday in the Month 1120 + 1220 UTC Schedule:-
16-Sept-12:- 1120 UTC, 7,471 kHz, "154 154 154 00000". Very weak signal, but clear copy with the receiver in USB mode.
1220 UTC, 6,907 kHz, second sending, again very weak but clear in USB mode.

14-Oct-12:- 1120 UTC, started approx 30 seconds early, 7,471 kHz, "154 154 154 00000". Same frequency as in September, very weak signal but good copy in USB mode.
1220 UTC, again 30 seconds early, 6,907 kHz second sending, very weak but OK in USB.

RNGB's log:

E06 September log:

Thurs	6th	05:00	12210	'354' 869 102 31515 92001 97245 57931 88643.....98793
		06:00	14830	'354' 869 102 31515 92001 97245 57931 88643.....98793
		20:30	5189	'891' 534 15 62810 35271 94637 52916 27194.....63728
Thurs	20th	20:30	5189	'891' 534 15 62810 35271 94637 52916 27194.....63728
Friday	21st	06:00	14825	'354' 869 102 31915 92001 97245 57931.....98793
		21:30	5197	'634' 030 15 14273 92617 61430 26174 87043.....29104

E06 October log:

Thurs	4th	06:00	16320	'186' 253 104 68781 22294 13071 75426 45585.....64020
Friday	5th	07:00	18210	'186' 253 104 68781 22294 13071 75426 45585.....64020
Thurs	18th	06:00	16320	'186' 253 104 68781 22294 13071 75426 45585.....64020
		07:00	18210	'186' 253 104 68781 22294 13071 75426 45585.....64020
		20:30	5189	'891' 490 15 63728 01627 83491 63819 51628.....19201
Friday	19th	21:30	5197	'634' 617 15 72391 01826 28193 37182 51025.....27102

Others'logs:

September 2012:

3704kHz2020z	12/09[154 00000] Strong signal, strong noise		FR, Spectre	WED
4615kHz1920z	12/09[154 00000] Very strong signal, moderate/strong noise		FR, Spectre	WED
5186kHz2030z	06/06 [891 534 15 62810 ... 63728 534 15 00000(s)] Strong signal, moderate noise		FR, M8	THU

891 534 15
62810 35271 94637 52916 27194
10253 92617 27493 46382 01736
83925 72419 43627 01736 63728
534 15 00000(s) *Courtesy FR*

5197kHz2130z	07/09[634 030 15 14273 ... 29104 030 15 00000(s)] 2137z Fair, with distortion on numerals.	(7m24s)	Spectre,PLdn	FRI
2130z	21/09[634 030 15 14273 ... 29104 030 15 00000(s)] 2137z Strong	(7m24s)	Spectre,PLdn	FRI

634 030 15
14273 (92617) 61430 26174 87043
72819 37194 60163 53728 45179
27194 (92617) 26183 93627 29104
030 15 00000 *Courtesy Spectre*
(Note repeated groups in message.)

6907kHz1220z	16/09[154 00000(s)] 1224z Very Weak QRN3 QSB3	Spectre	SUN
7471kHz1120z	16/09[154 00000(s)] 1124z Very Weak QRN3 QSB3	Spectre	SUN
12210kHz0500z	07/09[354 869 102 31915 ... 98793 869 102 00000(f)] Strong signal, weak/moderate noise	FR	FRI

354 869 102
31915 92001 97245 57931 88643 77318 54755 05522 55710 45276
16528 35631 61510 03933 13593 81713 76545 59967 79852 29922
09364 93521 52010 92470 81616 22531 72678 40679 22878 76797
23054 82020 72610 17878 62130 24146 46698 37665 98986 12693
35375 05758 09182 68921 72749 46303 09219 87024 47190 97650
43455 96733 73449 90819 23189 55244 11765 97493 36228 73716
81865 23350 58325 84461 72814 37751 51718 52558 80031 12661
80933 41538 66141 66306 50863 67072 67080 22299 88277 12978
76512 99165 56790 17274 78494 51460 15555 75461 21346 65408
55346 03959 88594 93931 86603 55637 76086 43490 30891 61378
26912 98793 869 102 00000(f) *Courtesy FR*

October2012:

5189kHz 2030z	04/10 [891 490 15 63728 ... 19201 490 15 00000(s)] 2037z Fair QRN3 QSB3	Spectre, tING	THU
2030z	18/10 [891 490 15 63728 ... 19201 490 15 00000(s)] 2037z Fair QRN3 QSB3	Spectre	THU

891 490 15
63728 01627 83491 63819 51628
79103 61035 28193 72104 38102
81036 20192 46183 01826 19201
490 15 00000 *Courtesy Spectre*

5197kHz2130z	05/10[634 617 15 72391 ... 27102 617 15 00000(s)] 2137z Strong, QRM	(6m59s)	PLdn, Spectre	FRI
2130z	19/10[634 617 15 72351 ... 27102 617 15 00000(s)] 2137z Fair,QRM3	(6m59s)	PLdn, Spectre	FRI

634 617 15
72391 01826 28193 37182 51025
91721 36271 92018 42710 72819
01936 57183 82017 92016 27102
617 15 00000 Courtesy Spectre

6907kHz1220z	14/10[154 00000]	FN	SUN
7471kHz1120z	14/10[154.....000000.....]1126z S1	M8	SUN
7471kHz1126z	14/10[123456789 3 times as test count]1130z S1	M8	SUN
16320kHz0600z	05/10[186 253 104 68781 22294 etc (repeat of Thursday)	RNGB	FRI
18210kHz0700z	05/10[186 253 104 68781 22294 etc (repeat of Thursday)	RNGB	FRI

E07 [1B]

RNGB's Logs lead us onto PoSW's logs:

E07 September log:

Weds 5th		17:00	12223	'201' 1 718 84 …..
		19:20	10708	'172' 000
Thurs	6th	20:10	9387	'358' 000
Sunday	9th	17:00	12223	'201' 000
Weds	19th	17:40	10116	'201' 1 647 109 22630 13947 15556 03783.....
		19:40	9208	'172' 1 168 66 03919 29340 27815 72806.....
Thurs	20th	20:10	9387	'358' 1 966 70 48717 78770 11354 50370.....

Monday	24th	19:00	12108	‘172’ 000
Weds	26th	19:00	12108	‘172’ 000
Thurs	27th	20:10	9387	‘358’ 1 7822 61 40809 88668 75786 71700 45434.....

E07 October log:

Monday	1st	19:00	10243	‘229’ 1 230 62? 18308 76197 59813 73841.....27801
Weds	3rd	17:40	8123	‘441’ 1 736 120 50036 88127 15085 76371.....
		19:00	10243	‘229’ 1 230 63 18308 76197 59813 73841.....27801
Monday	22nd	19:00	10243	‘229’ 000

PoSW’s logs [includes E07a]

Sunday + Wednesday Schedule, 1700 UTC Start:-
2-Sept-12, Sunday:- 1700 UTC, 12,223 kHz, “201 201 201 1”, DK/GC “718 84” x 2. S9 signal with good audio.
1720 UTC, 11,062 kHz, second sending, S9+ with almost *excellent* audio!
1740 UTC, 10,116 kHz, third sending of “201” and “718 84”, inside the 30 metre amateur band, a very strong CW station positioned so as to heterodyne with E07's carrier which I read as “CQ CQ CQ DE LB9JE” - probably a false call trying to disrupt E07, LA is Norway, but LB?

5-Sept-12, Wednesday:- 1704 UTC, 12,223 kHz, in progress, missed start, S9 but unlike on Sunday the audio was low.
1720 UTC, 11,062 kHz, second sending, very low mod, difficult copy.
1740 UTC, 10,116 kHz, third sending, “201” and “718 84” as on Sunday but audio much lower.

9-Sept-12, Sunday:- 1700 UTC, 12,223 kHz, “201 201 201 000” S9 with reasonable audio.
1720 UTC, 11,062 kHz, S9+, also reasonable audio.

16-Sept-12, Sunday:- 1700 UTC, 12,223 kHz, “201 201 201 1”, DK/GC “647 109” x 2, peaking S9+ with good audio.
1720 UTC, 11,062 kHz, second sending, S9 with good audio.
1740 UTC, 10,116 kHz, third sending, strong signal with amateur CW for company.

30-Sept-12, Sunday:- 1700 UTC, 12,223 kHz, “201 201 201 1”, DK/GC “736 120” x 2.
1720 UTC, 11,062 kHz, and 1740 UTC, 10,116 kHz, repeats.

3-Oct-12, Wednesday:- 1700 UTC, 11,454 kHz, “441 441 441 1”, DK/GC “736 120” x 2.
1720 UTC, 9,423 kHz, second sending, inside 31 metre band, severe broadcast interference making for difficult copy.
1740 UTC, 8,123 kHz, third sending, over-riding an “XJT”.

14-Oct-12, Sunday:- 1700 UTC, 11,454 kHz, “441 441 441 000”.
1720 UTC, 9,423 kHz, second sending suffering from S9+ broadcaster on 9,240.

Monday + Wednesday Schedule, 1900 UTC Start:-
10-Sept-12, Monday:- 1920 UTC, 10,708 kHz, “172 172 172 000”, S9 with good audio.

12-Sept-12, Wednesday:- 1900 UTC, 12,108 kHz, “172 172 172 000”.

17-Sept-12, Monday:- 1904 UTC, 12,108 kHz, first sending in progress, good signal, strong broadcaster on 12,110.
1920 UTC, 10,708 kHz, “172 172 172 1”, DK/GC “168 66” x 2, S9 with good audio.
1940 UTC, 9,208 kHz, third sending, S9 with good audio.

24-Sept-12, Monday:- 1920 UTC, 10,708 kHz, “172 172 172 000”.

3-Oct-12, Wednesday:- 1900 UTC, 10,243 kHz, “229 229 229 1”, DK/GC “230 63” x 2.
S9 signal with unusually good audio, one hesitates to use the word “excellent”!

1920 UTC, 9,243 kHz, second sending, S9 with good audio.
1940 UTC, 7,943 kHz, third sending, peaking S9+ with good audio.

8-Oct-12, Monday:- 1920 UTC, 9,243 kHz, “229 229 229 1”, weak signal, low audio, difficult copy.
1940 UTC, 7,943 kHz, weak signal, low mod, interference from a strong FSK station a few hundred Hz HF.

15-Oct-12, Monday:- 1900 UTC, 10,243 kHz, “229 229 229 000”, reasonable audio.
1920 UTC, 9,243 kHz, second sending.

22-Oct-12, Monday:- 1920 UTC, 9,243 kHz, “229 229 229 000”, heterodyne with carrier of S06 in full message mode on 9,245.

Thursday Schedule, 2010 UTC Start:-
6-Sept-12:- 2010 UTC, 9,387 kHz, “358 358 358 000”.
2030 UTC, 7,526 kHz, second sending, both transmissions with reasonable audio.

13-Sept-12:- 2010 UTC, 9,387 kHz, “358 358 358 1”, DK/GC “966 70” x 2. Strong signal, reasonable audio.
2030 UTC, 7,526 kHz, second sending, good signal.
2050 UTC, 5,884 kHz, third sending, good signal.

27-Sept-12:- 2010 UTC, 9,387 kHz, “358 358 358 1”, DK/GC “782 61” x 2, strong signal with good audio.
2030 UTC, 7,526 kHz, second sending.
2050 UTC, 5,884 kHz, third sending, good signal, FSK/RTTY type signal on close frequency.

4-Oct-12:- 2010 UTC, 7,516 kHz, “584 584 584 1”, DK/GC “782 61” x 2 , good audio.
2030 UTC, 5,836 kHz, second sending.
2050 UTC, 4,497 kHz, third sending, S9+ with good audio.

11-Oct-12:- 2010 UTC, 7,516 kHz, “584 584 584 1”, DK/GC “616 78” x 2, reasonable audio.
2030 UTC, 5,836 kHz, second sending, reasonable audio - if you can hear the numbers from E07 its reasonable!
2050 UTC, 4,497 kHz, the strongest signal of the three.

Wednesday E07a SSB Schedule, 2000 UTC Start:-
12-Sept-12:- 2000 UTC, 8,173 kHz, "147 147 147 1 38380", a 5F in the call-up with the SSB version, DK/GC "269 66" x 2, strong SSB signal.
2020 UTC, 7,473 kHz, second sending, heterodyne from the carrier of a broadcast station on 7,475.
2040 UTC, 5,773 kHz, third sending, strong signal.

3-Oct-12:- 2000 UTC, 5,864 kHz, the expected seasonal change of frequencies for the autumn and winter months, "815 815 815 000". S9+ SSB signal.
2020 UTC, 5,164 kHz, second sending, S9+ again.

17-Oct-12:- 2000 UTC, 5,864 kHz and 2020 UTC, 5,164 kHz, "815 815 815 000", both strong signals.

Saturday E07a SSB Schedule, 0800 UTC Start:-
1-Sept-12:- 0820 UTC, 12,153 kHz, "114 114 114 000" weak signal, found a few seconds before stopping after 0822. Unable to find a sending at 0800z.

8-Sept-12:- 0800 UTC, 11,153 kHz, and a full message, first I have logged from this Saturday morning schedule, "114 114 114 1 33431", call-up incorporating a 5F group as on Wednesdays, DK/GC "670 63" x 2. Weak but clear signal.
0820 UTC, 12,153 kHz, second sending, very weak.
0840 UTC, 13,453 kHz, third sending, strong "XJT" on LF side.

15-Sept:- 0820 UTC, 12,153 kHz, missed 0800z sending, "114 114 114 000".

22-Sept-12:- 0800 UTC, 11,153 kHz, "114 114 114 000", weak signal.

29-Sept-12:- 0800 UTC, 11,153 kHz, "114 114 114 000".
0820 UTC, 12,153 kHz, second sending, peaking S7, stronger than usual.

Lost track of this one in October until the 27th, the last chance to find it:-
27-Oct-12:- 0800 UTC, 11,484 kHz, "413 413 413 000", found about half way through the "no message" transmission of just over two minutes.
0820 UTC, 12,184 kHz, second sending,signal strength S5.

Others' Logs
September 2012:

5884kHz	2050z	13/09	[358] Virtually unreadable, odd characters. QRN3	PLdn	THU
	2050z	20/09	Very poor, Msg. Odd characters heard	PLdn	THU
9208kHz	1740z	17/09	[172 1 168 66 03919 … 88964 000 000] Fair, PLASMAQRM2 (9m12s)	PLdn	MON
	1940z	19/09	[172 1 168 66 03919 … 88964 000 000] (9m12s)	FR, PLdn	WED

172 1 168 66
03919 29340 27815 72806 64750 70960 08775 90041 72802 62475
20009 83772 99180 12002 16517 88965 13919 49873 26850 39032
77640 65545 35118 55263 50983 53258 96886 03213 53352 58638
16495 79504 64182 68991 78393 98196 62086 21255 22479 76055
21523 31213 76418 91522 59831 35373 06029 34704 65020 97467
98798 88141 40859 27383 81409 26064 34895 34928 32795 86658
04286 16866 00310 42850 49973 88964 000 000 *Courtesy FR*

9387kHz	2010z	06/09	[358 000]	FR, PLdn	THU
	2010z	27/09	[358 358 358 1 R2m 782 61 782 61 40809 88668 … 44710 000 000] 2018z QSA4 QRM1 QRN1 QSB3	tiNG	THU
10116kHz	1740z	02/09	[201 1 718 84 61392 ... 40666 000 000] Strong (10m58s)	Fox, PLdn	SUN
	1740z	16/09	[201 1 647 109 22630 … 95753 647 109 000 000] Strong sigs (13m29s)	FR, PLdn	SUN

201 1 647 109
22630 13947 15556 03783 39103 43929 66907 09916 08186 32507
23952 99318 84733 81645 01334 84009 63360 21229 05931 57618
90542 18697 53244 50065 04421 77051 13497 04808 30958 67249
86856 05861 74746 24410 53745 77572 69643 56937 53454 37008
42121 84982 56948 28712 01122 08767 20527 22346 04658 31330
82822 42247 41548 43868 20081 09945 78804 72567 07890 09848
59194 37171 01678 22343 39241 96232 89823 13746 92748 18486
60952 23150 38933 80985 60726 15482 12543 91910 69854 79004
01586 85295 65577 23912 64875 48664 65407 36460 10476 96284
45814 82398 36715 97529 36235 61472 38734 89048 20809 47605
76250 80583 37428 15269 31570 90588 24387 09992 95753
000 000 *Courtesy FR*

	1740z	19/09	[201 1 647 109 22630 … 95713 647 109 000 000] Weak, QRM3 (13m29s)	AB, PLdn	WED
10708kHz	1920z	03/09	[172 000] Weak (2m13s)	PLdn	MON
	1921z	05/09	[172 172 172 000] 1922z Fair QRN3 QSB3	Spectre, MP	WED
	1920z	10/09	[172 000] Strong (2m13s)	Spectre, PLdn	MON
	1920z	12/09	[172 000] Strong (2m13s)	PLdn, HJH	WED
	1920z	19/09	[172 1 168 66 03919 … 88964 000 000] (9m12s)	FR, PLdn	WED
	1920z	24/09	[172 000] Weak and noisy (2m13s)	M8, PLdn	MON
	1920z	26/09	[172 000] Strong (2m13s)	PLdn	MON
11062kHz	1720z	02/09	[201 1 718 84 61392 ... 40666 000 000] Strong, QRM3 at end (10m58s)	Fox, PLdn	SUN
	1720z	09/09	[201 000] Fair (2m13s)	Spectre, PLdn	SUN
	1720z	12/09	[201 000] Strong (2m13s)	PLdn	WED
	1720z	16/09	[201 1 647 109 22630 … 95753 647 109 000 000] Strong sigs (13m29s)	FR, PLdn	SUN
	1720z	17/09	[172 1 168 66 03919 … 88964 000 000] Very strong (9m12s)	PLdn	MON
	1720z	19/09	[201 1 647 109 22630 … 95713 647 109 000 000] Strong, QRM2 (13m29s)	AB, PLdn	WED
	1720z	23/09	[201 000] Weak audio (2m13s)	AE, PLdn	SUN
	1720z	26/09	[201 000] Strong (2m13s)	PLdn	WED

12108kHz	1900z	03/09 Weak carrier, with noise	(2m13s)	PLdn	MON
	1900z	05/09[172 172 172 000] 1902z Fair QRN3 QSB3		Spectre	WED
	1900z	10/09[172 172 172 000] 1902z Fair QRN3 QSB3		Spectre	MON
	1900z	12/09[172 000] Strong, DATAQRM2	(2m13s)	PLdn	WED
	1900z	24/09[172 000] Weak and noisy	(2m13s)	M8, PLdn	MON
	1900z	26/09[172 000] Strong	(2m13s)	PLdn	MON
12223kHz	1700z	02/09[201 1 718 84 61392 ... 40666 000 000] Strong	(10m58s)	FR, PLdn	SUN

201 1 718 84
61392 55094 03353 99357 04288 91424 24619 48465 45965 39590
89811 79375 29405 63491 28068 15768 08222 47003 97034 87451
87583 29626 89993 80436 15338 09351 69390 21197 52045 00837
66248 35959 59370 14062 80357 55573 96011 27060 20339 08368
94319 75139 03793 58117 65756 70476 97160 66115 40068 40336
26675 56658 55534 56693 46512 36067 00854 11256 03174 81520
47493 34721 81666 91081 11303 91824 58691 27158 02564 36091
18910 18748 16802 16589 00503 04272 67250 76140 03943 51213
79361 63109 85435 40666 000 000 *Courtesy FR*

	1700z	09/09[201 000] Fair	(2m13s)	FR, PLdn, Spectre	SUN
	1700z	12/09[201 000] Strong	(2m13s)	Spectre, PLdn	WED
	1700z	16/09[201 1 647 109 22630 … 95753 647 109 000 000] Strong sigs	(13m29s)	FR, PLdn	SUN
	1700z	17/09[172 1 168 66 03919 … 88964 000 000] Fair, BCQRM3	(9m12s)	PLdn	MON
	1700z	19/09[201 1 647 109 22630 … 95713 647 109 000 000] Strong	(13m29s)	AB,PLdn	WED
	1700z	23/09[201 000] Weak audio	(2m13s)	FR, PLdn	SUN
	1700z	26/09[201 000] Strong	(2m13s)	PLdn	WED

October2012:

7516kHz	2010z	04/10[584 1 782 61 782 61 40809 ... 44710 000 000] 2019z QSA3 QRN3 QSB3		tiNG	THU
7943kHz	1940z	03/10[229 1 230 62 18308 … 27801 000 000] Strong		AB	WED

229 1 230 63
18308 76197 59813 73841 96163 29885 73338 31981 58658 80330
84464 33828 34568 06218 55842 00116 60889 84101 23514 06905
72329 33378 59574 33083 76271 22966 93175 21416 47410 22701
04613 35450 84274 52465 09945 08352 84680 54092 48680 21054
21169 44007 69175 80912 20988 56040 26899 80827 30854 57161
75848 84917 47239 88686 63136 66731 35565 54561 59538 17226
83003 47212 27801
000 000 *Courtesy spectre andy AB*

8123kHz	1740z	07/10[441 1 478 93 45095 … 40855 000 000]XJTQRM3	(12m00s)	FR, Hans	SUN
	1740z	10/10[441 1 478 93 45095 … 40855 000 000] Weak, XJTQRM3	(12m00s)	PLdn	WED
	1740z	21/10[441 1 475 69 84505 … 33095 000 000] Strong, QRM	(9m33s)	FR, Hans	SUN

441 1 475 69
89505 43966 13299 80571 96133 57051 28337 54323 44931 52532
19669 21372 50535 90345 66237 63768 77273 50388 09475 73301
95816 57478 43183 60061 85040 08321 58549 40047 89689 21192
53912 18741 68708 50756 44966 27463 25008 91504 14427 74984
71436 34803 12918 62717 01452 09191 03131 82023 23492 51422
97155 96430 43031 55701 51999 45030 63702 15076 68068 16728
82488 02398 71746 34458 46981 58894 55472 01076 33095
000 000 *Courtesy FR*

	1740z	24/10[441 1 475 69 84505 … 33095 000 000] Poor, readable. XJTQRM3/4	(9m33s)	PLdn	WED
9243kHz	1920z	03/10[229 1 230 62 18308 … 27801 000 000] Strong	(8m55s)	PLdn, AB	WED
	1920z	15/10[225 000] Very weak and noisy	(2m13s)	PLdn	MON
	1900z	24/10[229 000] Audio poor, almost unworkable		HJH, M8	WED
	1920z	29/10[229 000] Weak audio	(2m13s)	PLdn	MON
	1920z	31/10[229 000] Weak audio	(2m13s)	PLdn	WED
9423kHz	1720z	07/10 BCQRM5		FR, PLdn	SUN
	1720z	17/10[441 000] Fair, BCQRM3	(2m13s)	PLdn	WED
	1720z	21/10 BCQRM5		FR, PLdn	SUN
	1720z	24/10 BCQRM4/5 Odd character heard		PLdn	WED
	1720z	28/10[441 000] Fair, BCQRM3	(2m13s)	PLdn	SUN
	1720z	31/10 BCQRM5	(2m13s)	PLdn	WED
10243kHz	1900z	03/10[229 1 230 62 18308 … 27801 000 000] Strong	(8m55s)	PLdn, AB	WED
	1900z	15/10[229x3 000]		GD	MON
	1900z	24/10[229 R3 000]1902z S7		M8	WED
	1900z	29/10[229 000] Weak audio	(2m13s)	PLdn	MON
	1900z	31/10[229 000] Weak audio	(2m13s)	PLdn	WED

11454kHz1700z	03/10[441 1 836 120 nnnnn … 59097 000 000]	(14m38s)	PLdn	WED
1700z	07/10[441 1 478 93 45095 … 40855 000 000]Strong, QSB2	(12m00s)	FR, Hans	SUN

441 1 478 93
45095 65158 15649 49696 52416 07157 84877 22162 69514 87950
97458 65914 85253 89603 36657 48849 79253 67673 08655 53278
61663 79254 35817 17531 32816 27606 78058 96458 47679 26104
09137 09096 12681 16103 33026 62623 41243 94813 02713 69355
12980 02971 31222 82164 08594 36312 08355 39302 40996 73913
11101 26858 20618 70171 63350 85456 78880 93942 56082 53818
14419 50111 58196 81844 17554 36073 57294 29565 05415 99401
24335 73729 39234 90212 35460 00309 54385 07872 75345 29141
88835 03650 46725 09570 62508 02564 28171 38964 27059 33536
31702 18989 40855 000 000 *Courtesy FR*

1700z	17/10[441 000] Fair, BCQRM3	(2m13s)	PLdn	WED
1700z	21/10[441 1 475 69 84505 … 33095 000 000] Very strong, QSB	(9m33s)	FR	SUN
1700z	24/10[441 1 475 69 84505 … 33095 000 000] Fair	(9m33s)	PLdn	WED
1700z	28/10[441 000] Fair	(2m13s)	PLdn	SUN
1700z	31/10[441 000] Fair	(2m13s)	PLdn	WED

E07a
September 2012:

5773kHz2040z	05/09[147 1 68986 4263 46 44743 ... 05563 000 000] Very strong	Msg prev sent 18/07/2102	(6m23s)	PLdn	WED
2040z	12/09[147 1 38380 269 66 89639 ... 26319 000 000] Strong		(8m00s)	FR, PLdn, Spectre	WED
7437kHz0430z	06/09[411 1 68986 4263 46 44743 ... 05563 000 000] Very strong	Msg prev sent 19/07/2102	(6m23s)	PLdn	THU
0430z	13/09[411 1 38380 269 66 89639 ... 26319 000 000] Very strong		(8m00s)	Spectre, PLdn	THU
0430z	20/09[411 000] Very strong		(2m13s)	Spectre, PLdn	THU
0430z	27/09[411 000] Very strong		(2m13s)	Spectre, PLdn	THU
7473kHz2020z	05/09[147 1 68986 4263 46 44743 ... 05563 000 000] Very strong	Msg prev sent 18/07/2102	(6m23s)	PLdn	WED
2020z	12/09[147 1 38380 269 66 89639 ... 26319 000 000] Strong, BCQRM3		(8m00s)	FR, PLdn, Spectre	WED
2020z	19/09[147 000] Strong, BCQRM2		(2m13s)	Spectre, PLdn	WED
2000z	26/09[147 000] Very strong, BCQRM3		(2m13s)	Spectre, PLdn	WED
8137kHz0450z	06/09[411 1 68986 4263 46 44743 ... 05563 000 000] Very strong	Msg prev sent 19/07/2102	(6m23s)	PLdn	THU
0450z	13/09[411 1 38380 269 66 89639 ... 26319 000 000] Very strong		(8m00s)	Spectre, PLdn	THU
0450z	20/09[411 000] Very strong, HETQRM2		(2m13s)	Spectre, PLdn	THU
0450z	27/09[411 000] Very strong, TTYQRM2		(2m13s)	Spectre, PLdn	THU
8173kHz2000z	05/09[147 1 68986 4263 46 44743 ... 05563 000 000] Very strong	Msg prev sent 18/07/2102	(6m23s)	PLdn	WED
2000z	12/09[147 1 38380 269 66 89639 ... 26319 000 000] Very strong		(8m00s)	FR, PLdn	WED

147 1 38380 269 66
89639 98717 28917 89916 84095 07447 90933 67649 68291 95879
86178 74656 85208 54286 86852 49082 79578 39421 81779 14873
54986 44742 39188 30009 46279 47921 39260 88759 60655 28410
47855 20746 82070 15211 16985 75248 13965 36641 51766 41489
71990 91547 92180 81974 45091 65481 15725 74969 16339 36804
28860 40056 26059 08816 68660 63470 69884 41004 74236 02736
37944 29686 63104 61025 72225 26319 000 000 *Courtesy FR and Spectre*

2000z	19/09[147 000] Strong	(2m13s)	FR, PLdn	WED
2000z	26/09[147 000] Very strong	(2m13s)	PLdn	WED
9137kHz0510z	06/09[411 1 68986 4263 46 44743 ... 05563 000 000] Very strong	Msg prev sent 19/07/2102	(6m23s)	PLdn	THU
0510z	13/09[411 1 38380 269 66 89639 ... 26319 000 000] Very strong		(8m00s)	Spectre, PLdn	THU
11153kHz0800z	08/09[114x3 1 33431 670 63]			GD	SAT
0800z	22/09[114 000] Fair		(2m13s)	PLdn	SAT
0800z	29/09[114 000] Fair		(2m13s)	PLdn	SAT
12153kHz 0820z	22/09[114 000] Fair		(2m13s)	PLdn	SAT
0820z	29/09[114 000] Weak		(2m13s)	PLdn	SAT
13453kHz0840z	08/09[114 1 33431 670.....] Very weak and noisy			PLdn	SAT

October2012:

4564kHz2040z	31/10[815 1 38380 269 66 89639 ... 26319 000 000] Vy strong Prev sent 12&13th Sep12	(8m03s)	PLdn	WED
5146kHz0430z	04/10[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
0430z	11/10[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
0430z	18/10[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
0430z	25/10[188 000] Very strong	(2m13s)	PLdn	THU
5164kHz2020z	03/10[815 000] Very strong, QRM3	(2m13s)	PLdn, Spectre	WED
2020z	10/10[815 000] Very strong, PULSEQRM3	(2m13s)	PLdn, Spectre	WED
2020z	17/10[815 000] Very strong	(2m13s)	PLdn, Spectre	WED
2020z	24/10[815 000] Very strong	(2m13s)	PLdn	WED
2020z	31/10[815 1 38380 269 66 89639 ... 26319 000 000] Vy strong Prev sent 12&13th Sept2012	(8m03s)	PLdn	WED

5846kHz	0450z	04/10[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
	0450z	11/10[188 000] Very strong, LocalQRM3	(2m13s)	PLdn, Spectre	THU
	0450z	18/10[188 000] Very strong	(2m13s)	PLdn, Spectre	THU
	0450z	25/10[188 000] Very strong	(2m13s)	PLdn	THU
5864kHz	2000z	03/10[815 000] Very strong	(2m13s)	PLdn, Spectre	WED
	2000z	10/10[815 000] Very strong, BCQRM2	(2m13s)	PLdn, Spectre	WED
	2000z	17/10[815 000] Very strong	(2m13s)	PLdn, Spectre	WED
	2000z	24/10[815 000] Very strong	(2m13s)	PLdn, GD	WED
	2000z	31/10[815 1 38380 269 66 89639 ... 26319 000 000] Very strong Prev sent 12&13th Sept2012	(8m03s)	PLdn	WED
11484kHz	0800z	06/10[413 000]		RNGB	SAT
	0800z	20/10[413 000] Very strong	(2m13s)	PLdn, GD	SAT
	0800z	27/10[413 000] Fair	(2m13s)	PLdn	SAT
12184kHz	0820z	06/10[413 000]		RNGB	SAT
	0820z	20/10[413 000] Very strong	(2m13s)	PLdn	SAT
	0820z	27/10[413 000] Fair	(2m13s)	PLdn	SAT

E11[III]

E11 log Sept/Oct

4909kHz	0900z	06/10 [248/00] Fair	RNGB	FRI
6304kHz	0450z	03/09 [416/00] 0453z Fair QRN3 QSB3	Spectre	MON
	0450z	10/09 [416/00] 0453z Fair QRN3 QSB3	Spectre	MON
	0450z	17/09 [416/00] 0453z Fair QRN2 QSB2	Spectre	MON
	0450z	08/10 [416/00] Fair	Hans	MON
	0450z	22/10 [416/00] 0453z Fair QRM3	Tony, Hans	MON
6814kHz	0820z	03/09 [438/00] Out 0823z QSA4 QSB2	Marco	MON
	0820z	06/09 [438/00]	RNGB	THU
	0820z	10/09 [438/00] 0823z Fair QRN3 QSB2	Spectre	MON
	0820z	13/09 [438/00] Out 0823z S1	Malc	THU
	0820z	24/09 [438/00]	RNGB	MON
	0820z	27/09 [438/00] 0823z Fair QRN3 QSB3	Spectre	THU
	0820z	01/10 [438/00] Fair	RNGB	MON
	0820z	04/10 [438/00] Out 0823z QSA4	Marco	THU
	0820z	18/10 [438/00]	RNGB	THU
	0820z	22/10 [438/00] 0823z Fair QRM3	Tony	MON
6869kHz	2000z	07/09 [576/00] Very strong signal, very weak noise	Fox, Marco	FRI
	2000z	26/10 [576/00]	RNGB	FRI
7449kHz	1045z	04/09 [469/00] Fair	RNGB	TUE
	1045z	05/09 [469/00] Out 1048z QSA3	Marco	WED
	1045z	19/09 [469/00]	RNGB	WED
	1045z	02/10 [469/00]1048z QSA3	Marco	TUE
	1045z	16/10 [469/00] Weak	RNGB	TUE
	1045z	17/10 [469/00] Out 1048z Very Weak	Malc	WED
9371kHz	1730z	06/09 [416/00] Out 1733z QSA4	Marco, RNGB	THU
	1730z	13/09 [416/00] Out 1733z S2	Malc	THU
	1730z	20/09 [416/00] Fair with heavy QRM	RNGB	THU
	1730z	25/10 [416/00] 1733z S9	Malc	THU
9399KHz	0900z	03/09 [534/00] Out 0903z QSA4	Marco	MON
	0900z	05/09 [534/00] 0903z QSA3	Marco	WED
	0900z	10/09 [534/00] 0903z Fair QRN2 QSB2	Spectre	MON
	0900z	24/09 [534/00] Weak	RNGB	MON
	0900z	26/09 [534/00] Very strong signal, moderate noise, signal testat 0857z	Fox	WED
	0900z	03/10 [534/00]	RNGB	WED
	0900z	17/10 [534/00]	RNGB	WED
	0900z	24/10 [534/00]	RNGB	WED
10221kHz	0710z	04/09 [633/00] Out 0713z S5	Malc, Marco	TUE
	0710z	07/09 [633/00] Strong signal, moderate noise	Fox	FRI
	0710z	14/09 [633/00] 0713z Weak CARRIERQRM3 QSB4	Spectre	FRI
	0710z	18/09 [633/00] 0713z Very Weak QRN4 QSB4	Spectre	TUE
	0710z	21/09 [633/00]	RNGB	FRI
	0710z	02/10 [633/00]	RNGB	TUE
	0710z	05/10 [633/00]	RNGB	FRI
	0710z	19/10 [633/00]	RNGB	FRI
	0710z	23/10 [633/00] 0713z Fair	Tony	TUE
10690kHz	0830z	03/09 [649/00] Out 0833z QSA4	Marco	MON
	0830z	06/09 [649/00]	RNGB	THU
	0830z	10/09 [649/00]	RNGB	MON
	0830z	13/09 [649/00] Out 0833z S3	Malc	THU
	0830z	08/10 [649/00] Good	RNGB	MON
	0830z	22/10 [649/00] Good	RNGB	MON

10800kHz	0645z	04/09 [517/00] Out 0755z S5	Malc	TUE
	0645z	11/09 [517/00]	RNGB	TUE
	0645z	13/09 [517/00] Very strong signal, strong noise	Fox	THU
	0645z	18/09 [517/00] 0648z Weak QRN4 QSB3	Spectre	TUE
	0645z	25/09 [517/00] Good	RNGB	TUE
	0645z	02/10 [517/00] Fair	RNGB	TUE
	0645z	23/10 [517/00]	RNGB	TUE
13424kHz	1045z	04/09 [576/00] Out 1048z S3	Malc, RNGB	TUE
	1045z	18/09 [576/00] 1048z Fair CARRIER QRM3 QSB3	Spectre	TUE
	1045z	25/09 [576/00] 1048z QSA5	Marco	TUE
	1045z	02/10 [576/00] 1048z QSA4	Marco, RNGB	TUE
	1045z	16/10 [576/00] Good	RNGB	TUE
	1045z	23/10 [576/00]	RNGB	TUE
13455kHz	0615z	11/09 [133/00] Good	RNGB	TUE
	0615z	25/09 [133/00] Good	RNGB	TUE
	0615z	26/09 [133/00]	RNGB	WED
	0615z	23/10 [133/00]	RNGB	TUE
	0615z	24/10 [133/00]	RNGB	WED
14575kHz	0745z	04/09 [335/00] Out 0748z S5	Malc, Marco, RNGB	TUE
	0745z	06/09 [335/00]	RNGB	THU
	0745z	18/09 [335/00] 0748z Fair QRN3 QSB2	Spectre	TUE
	0745z	20/09 [335/00]	RNGB, Ary	THU
	0745z	25/09 [335/00]out 0748z QSA5	Marco, RNGB	TUE
	0745z	27/09 [335/00] 0748z Fair QRN3 QSB2	Spectre	TUE
	0745z	02/10 [335/00]	RNGB	TUE
	0745z	04/10 [335/00] Out 0748z QSA4	Marco,Spectre	THU
	0745z	18/10 [335/00]	RNGB,Spectre	THU
	0745z	23/10 [335/00]	RNGB,Spectre	TUE
	0745z	25/10 [335/00] 0748z QSA5 QRM3	Marco	THU
15915kHz	1155z	06/09 [718/00]	RNGB	THU
	1155z	13/09 [718/00] Out 1158z S9	Malc	THU
	1155z	26/09 [718/00] Very strong signal, moderate noise	Fox	WED
	1540z	30/09 [228/00]	RNGB	SUN
	1155z	03/10 [718/00]	RNGB	WED
	1155z	17/10 [718/00] Out 1158z S5	Malc	WED
	1155z	18/10 [718/00]	RNGB	THU
	1540z	21/10 [228/00]	RNGB	SUN
	1540z	22/10 [228/00] 1543z Fair QRN3 QSB3	Spectre	MON

E11a log Sept/Oct

5194kHz	1710z	07/09 [953/20 Attention 69194 ... 05399] Out 1717z Fair QRN3 QSB3	Spectre	FRI
	1710z	14/09 [957/30 75680 55600 80821 42919 07624…..51209] Out 1719z	Malc	FRI
	1710z	21/09 [959/30 64720 77490 76397 78313 19688…..39693] Good	RNGB, Fox	FRI
	1710z	24/09 [953/21 25058 07840 91008 18944 72572…..41315] Good	RNGB, Malc	MON
	1710z	01/10 [959/28 35130 28830 56719 31862 62446…..80313]	RNGB	MON
	1710z	05/10 [957/21 41494 94672 82122 96676 64438…..22186]	RNGB	FRI
	1710z	08/10 [957/21 91366 19544 05557 91009 12896…..95998] Out 1718z S9	Malc	MON
	1710z	19/10 [957/20 46579 82544 85739 68810 17151…..58471]	RNGB, Spectre	FRI
	1710z	22/10 [953/20 63706 27268 58046 52160 97971…..41990]	RNGB	MON
	1710z	26/10 [959/21 49695 75834 08538 10028 00071..…21350]	RNGB, Spectre	FRI
6304kHz	0450z	24/09 [416/34 Attention 26313 ... 59166 Out] 0500z Fair QRN3 QSB2	Spectre	MON
6814kHz	0820z	20/09 [438/37 69127 82538 47829 75943 94570…..27636] Good, Out 0830z	RNGB, Malc	THU
	0820z	08/10 [439/31 05918 37897 55621 55506 10973…..35849]	RNGB, Spectre	MON
6869kHz	2000z	12/10 [573/31 A 21925 18865 .... 96571] 2009z Strong	Hans	FRI
7449KHz	1045z	25/09 [464/33 96563 84413 25332 09573 08924…..60169] Out 1054z	Marco, Spectre	TUE
	1045z	26/09 [464/33 96563 84413 …..60169] Repeat of Tuesday.	Fox	WED
	1045z	23/10 [469/33 09089 50353 98045 64555 46703.....42213] 1054z Strong	Hans, RNGB	TUE
9371khz	1730z	27/09 [416/34 26313 28537 28992 36283 62331…..59166] Good, QRM	RNGB	THU
	1730z	04/10 [415/33 60422 14965 32777 07222 27687…..65767]	RNGB	THU
	1730z	18/10 [411/31 67392 60681 38197 30142 10304…..etc]	RNGB	THU

411/31 Attention
67392 60681 38197 30142 10304 07037 19622 87038 36036 00599
48526 69213 23750 52820 78764 46647 47686 30184 98586 41357
18804 81552 48690 21467 52266 12451 38138 85991 82461 07733
00086 Out *Courtesy Spectre*

9399kHz	0900z	19/09 [537/33 05321 94131 51398 22003 03540…..56221]	RNGB	WED
	0900z	08/10 [535/36 07591 41213 70272 51845 74056…..49312] S3	Malc, RNGB	MON

535/36 Attention
07591 41213 70272 51845 74056 09544 93636 59565 69118 09244
03039 37322 43010 52031 51822 47532 27250 89107 63036 45021
79152 50324 87717 82561 37983 55623 33912 37845 66361 58909
78209 64111 17538 72193 99234 49312
Out *Courtesy Spectre*

10221kHz	0710z	25/09 [630/31 14837 66724 15386 01723 58825…..64381] Good	RNGB	TUE
10690kHz	0830z	24/09 [647/34 56320 59381 84640 17515 73755…..40281]	RNGB, Spectre	MON
	0830z	01/10 [646/30 42194 79008 63056 97835 79295…..01780]	RNGB	MON
	0830z	05/10 [646/30 42194 etc] repeat of Monday	RNGB	FRI
10800kHz	0645z	06/09 [519/37 87386 04667 32575 90160 61487…..87917] Good	RNGB	THU
	0645z	18/10 [514/32 05364 69057 42536 22076 89705…..34559]	RNGB	THU

514/32 Attention
05364 69057 42538 22076 89705 75463 79563 31679 99837 91818
55099 31363 32127 10640 45359 47167 13982 42993 43442 09659
82802 51036 93351 05363 92683 88912 05561 69088 65433 39900
27885 34559 Out *Courtesy Spectre*

13375kHz	1400z	04/09 [983/10 35003 69023 62144 24000 64412…..78254] Fair, QRM	RNGB	TUE
	1400z	08/09 [984/12 22693 84652…..]	Fritz	SAT
	1110z	10/09 [956/36 05660 44646 80382 45590 18824…..05595] Fair	RNGB	MON
	1400z	22/09 [989/10 12652 62876 58343 62223 21027…..39343] Good	RNGB	SAT
	1110z	24/09 [952/31 61944 47263 30873 35603 12714…..23769] Fair	RNGB	MON
	1400z	29/09 [981/10 82147 92643 90761 40371 76853…..60669] Out 1405z S7	Malc, RNGB	SAT
	1400z	06/10 [981/10 96695 23339 28322 44975 51145…..44523] Good	RNGB	SAT
	1400z	16/10 [988/10 64965 66456 36374 73270 63222…..45791] Good	RNGB	TUE
	1110z	19/10 [954/31 25823 58525 49789 59786 24397…..etc]	RNGB	FRI

954/31 Attention
25823 58525 49789 59786 24397 05694 48157 19209 14914 49699
02393 83178 91689 67657 43210 10542 55871 66096 27326 96732
47797 99312 86286 10597 88962 93633 69489 63483 36805 34011
32926 Out *Courtesy Spectre*

	1400z	20/10 [987/10 33292 16392 11329 44942 14835…..04159] Good	RNGB	SAT
	1400z	23/10 [987/10 44477 17331 22971 21193 19580…..08649]	RNGB	TUE
	1110z	26/10 [956/32 03708 36590 66967 54152 33818…..53440] Out 1119z	Malc	FRI
13424kHz	1045z	11/09 [577/30 Attention 77273 ... 86520] Out 1056z Fair QSB3	Spectre	TUE
13455kHz	1810z	04/09 [987/10 87539 12613 74572 13582 63261…..67830] Good	RNGB	TUE
	1810z	08/09 [988 10 07003 97119 20818 62282 44334…..73313] Out 1815z	Malc, RNGB	SAT
	1810z	22/09 [988/10 70318 50249 24014 98832 01533…..73838] Strong	RNGB	SAT
	1810z	25/09 [987/10 47613 40105 42005 94361 78899...…84600] Good	RNGB	TUE
	1810z	29/09 [980/10 61592 81054 70369 84891 82914…..61630] Out1815z S9	Malc	SAT
	0615z	02/10 [136/38 80520 35232 34066 95926 10340…..34127] Good	RNGB	TUE
	1810z	02/10 [986/10 96695 23339 28322 44975 51145…..44523] Good	RNGB	TUE
	0615z	03/10 [136/38 80520 etc] repeat of Tuesday	RNGB	WED
	1810z	06/10 [982/10 16589 00197 73188 48574 42965…..42455]	RNGB	SAT
	1810z	16/10 [987/10 27278 72867 93305 20594 74800…..57143] Good	RNGB	TUE
	1810z	20/10 [985/10 30636 24863 84031 34574 63830…..80879]	RNGB	SAT
	1810z	23/10 [985/10 91953 61423 46606 26334 06692…..15362]	RNGB	TUE
	1810z	27/10 [982/10 33932 84037 58385 05067 25460…..52675] Very weak	RNGB	SAT
14575kHz	0745z	13/09 [335/30 74615 88886 50128 95532 78685…..15789] Out 0754z	Malc	THU
15915kHz	1540z	09/09 [228/37 91301 10998 83747 71620 67957…..53255] Weak	RNGB	SUN
	1155z	19/09 [710/37 18844 62046 43054 76051 51675…..88748] Fair, QSB	RNGB	WED
	1155z	20/09 [710/37 18844 62046 43054 76051 51675…..88748]	Ary	THU

E11c log Sept/Oct

7863kHz	2000z	04/09 [757/2200/00] Good	RNGB	TUE
	1925z	06/09 [758/0200/00] Good, Out 1928z	RNGB	THU
	1925z	13/09 [758/0500/00 Out 1928z S5	Malc	THU
	2000z	09/18 [757/2200/00] 2003z QSA4 QRM1 QRN2 QSB1	Thomas	TUE
	1925z	20/09 [758/0000/00] Good	RNGB	THU
	1925z	25/09 [758/0002/00] Good	Malc	TUE
	2000z	25/09 [757/1200/00] Good	RNGB	TUE
	1925z	27/09 [758/0000/00] R3m 1928z QSA4 QRM1 QRN2 QSB1	Thomas	THU
	1925z	02/10 [758/0001/00] Strong	RNGB	TUE
	1925z	04/10 [758/0000/00]	RNGB	THU
	2000z	09/10 [757/2200/00] 2003z Fair QRN3 QSB3	Spectre	TUE
	1925z	18/10 [758/0000/00]	RNGB	THU
	1925z	23/10 [758/0012/00]	RNGB	TUE
	1925z	25/10 [758/0000/00] Out 1928z S9	Malc	THU
	2000z	23/10 [757/2202/00]	RNGB, Spectre	TUE

E17z
September 2012:

12930kHz	0810z	06/09[674 908 5 31866 33823 41200 46641 32710 908 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre	THU
	0810z	13/09[674 908 5 31866 33823 41200 46641 32710 908 5 00000(s)] 0815z Fair QRN4 QSB3	Spectre	THU
	0810z	20/09[674 901 5 31353 16760 99797 42121 34308 901 5 00000(s)] 0815z Weak QRN4 QSB3	Spectre, M8	THU
	0810z	27/09[674 901 5 31353 16760 99797 42121 34308 901 5 00000(s)] 0815z Weak QRN4 QSB3	Spectre	THU

E17z Continued

14260kHz0800z	06/09 [674 908 5 31866 33823 41200 46641 32710 908 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre	THU
0800z	13/09[674 908 5 35866 33823 45200 46645 32750 00000] Strong signal,QRM	FR, GD, Spectre	THU
0800z	20/09[674 901 5 31353 56760 59797 42121 34308 901 5 00000]	M8, RNGB, AB	THU
0800z	27/09[674 901 5 31353 56760 59797 42121 34308 901 5 00000]0805z QSA4	MP, GD, Spectre	THU

October2012:

12930kHz0810z	04/10[674 291 5 68413 79856 12315 79834 34341 291 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre	THU
0810z	11/10[674 291 5 68413 79856 12315 79834 34341 291 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre	THU
0810z	25/10[674 980 5 42981 81583 87990 41529 30610 980 5 00000]0815z QSA5 QRM3	MP	THU
14260kHz0800z	04/10[674 291 5 79856 12315 79834 34341 291 5 00000]0805z QSA4 HamQRM2	MP, GD	THU
0800z	11/10[674 291 5 68413 79856 12315 79834 34341 291 5 00000(s)] 0805z Fair QRN3 QSB3	Spectre	THU
0800z	25/10[674 980 5 42981 81583 87990 41529 30610 980 5 00000]0805z QSA4 HamQRM3	MP, GD	THU

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

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

E25 [O]
September 2012:

9450kHz1313z	26/09 ending 1324z transmitted random series of numbers,the 1000 Hz tone, "EOM", "Repeat", etc. Very strong signal, YL.	MP, Fanis	WED

October2012:

6140kHz0824z	09/10[i.p.]0826z EOM only	MG	TUE
9450kHz1317z	23/10[785 18 788 17 R 1323z 78 78 78 78 78 Msg Msg Msg 1324z Rbt Rbt Rbt	RNGB	TUE

E25a
October2012:

9450kHz1315z	07/10[785 8] AM, fair, Univ. of Twente webSDR	MG	SUN
9450kHz1316z	18/10[785 12 13]1322z tone, Mx3 Rx3 EOM, winXP sound, QSA5 1322z	MG	THU

G06 [1A]

PoSW's logs to start, others' then RNGB
Second + Fourth Thursdays in the Month 1830 UTC Schedule:-
13-Sept-12:- 5,934 kHz, seasonal change of frequency from the 6,887 kHz of the summer months. Call "579", DK/GC "263 263 15 15". Inside the 49 metre broadcast band, side-band splash from a strong station on 5,930.

27-Sept-12:- 5,934 kHz, "579" and "263 263 15 15" again complete with BC interference.

11-Oct-12:- 5,940 kHz, slight shift in frequency clear of the broadcasters, call "579", DK/GC "015 015 15 15".

Friday Following Second + Fourth Thursdays 1930 UTC Schedule:-
14-Sept-12:- 5,442 kHz, change of frequency from 5,943 of the summer months, calling "947", DK/GC "916 916 15 15".

28-Sept-12:- 5,442 kHz, "947" and "916 916 15 15" again.

12-Oct-12:- 5,442 kHz, call "947", DK/GC "064 064 15 15", S9 signal on a clear frequency.

26-Oct-12:- 5,442 kHz, "947" and "064 064 15 15", again peaking S9 and interference free.

First + Second Mondays in the Month 1700 + 1800 UTC Schedule:-
3-Sept-12:- 1800 UTC, 5,378 kHz, second sending, "154 154 154 00000", S8 to S9.

10-Sept-12:- 1700 UTC, 4,639 kHz, "154 154 154 00000".
1800 UTC, 5,378 kHz, second sending.

1-Oct-12:- 1800 UTC, 5,378 kHz, "154 154 154 00000", strong signal peaking S9.

8-Oct-12:- 1700 UTC, 4,639 kHz, "154 154 154 00000", S9.
1800 UTC, 5,378 kHz, second sending, also S9.

Other's logs:

September 2012:

4639kHz	1700z	03/09[154 154 154 00000]1705z S1	M8	MON
5378kHz	1800z	03/09[154 154 154 00000]1805z S7	M8	MON
5442kHz	1930z	16/09[947 916 15 91752 … 32819 916 15 00000(s)] 1937z Strong	ATC, Spectre	SUN

947 916 15
91752 71026 91425 61732 29165
01738 25179 6(2819) 51828 15279
7(2819) 01829 31728 91025 3(2819)
916 15 00000 *Courtesy Spectre*

Spectre notes, " the groups with the figure's 2819 repeated 3 times in the message"

	1930z	28/09[947 916 15 91752 ... 32819 916 15 00000(s)] 1937z Strong, QRM2	PLdn	FRI
5934kHz	1834z	27/09[529 263 15 71829 ... 52173 263 15 00000(s)] 1837z Strong, BCQRM3 (7m30s)	PLdn	THU
6774kHz	0800z	17/09[215 00000] 0804z Weak QRN3 QSB3	Spectre	MON
	0800z	24/09[215 00000] 0804z Weak QRN3 QSB3	Spectre, MP	MON
6887kHz	1830z	13/09[579 263 15 71829 ... 57171 263 15 00000(s)] 1837z Strong, BCQRM2/3 (6m50s)	PLdn, tING	THU
9938kHz	1900z	08/09[387 259 259 184 184] full msg lasted 35 mins	GD	SAT

October2012:

4639kHz	1700z	01/10[154 00000] 1704z Weak QRN3 QSB3	Spectre	MON
5378kHz	1800z	01/10[154 00000]	HJH, AB, Spectre	MON
5442kHz	1930z	26/10[947 264 15 65947 ... 38193 264 15 00000(s)]	HJH	FRI

947 264 15
65947 51248 41846 81235 28194
39124 51738 93516 42912 38291
53718 12471 63821 73216 38193
264 15 222 222 *Courtesy HJH*

5940kHz	1830z	11/10[579 015 15 65438 ... 27978 015 15 00000(s)] 1837z Fair BCQRM3 QSB3	Spectre	THU
	1830z	25/10[579 015 15 65438 ... 27978 015 15 00000(s)] 1837z Fair BCQRM3 QSB3	Spectre	THU

579 015 15
65438 01324 67197 94631 63723 98012 56489 03425 75401 37289
85935 82961 83970 37481 27978 015 15 00000 Courtesy Spectre

6774kHz	0800z	08/10[215 00000]0803z QSA4	MP, Spectre	MON
	0800z	22/10[215 00000(s)] Fair	Hans, Spectre	MON
	0800z	29/10[215 x3/00000] 0805z Weak	ATC	MON
8140kHz	0800z	23/10[892 R] 0804z	RNGB	TUE

RNGB's G06 Logs:

G06 September log:

Monday	10th	08:00	6774	'215' 00000
		17:00	4639	'154' 00000
		18:00	5378	'154' 00000
Monday	24th	08:00	6774	'215' 00000
Thurs	27th	18:30	5934	'579' 263 15 71829 82910 78153 41839 45162.....57173

G06 October log:

Monday	1st	08:00	6774	'215' 00000
		17:00	4639	'154' 00000
		18:00	5378	'154' 00000
Monday	8th	08:00	6774	'215' 00000
Monday	22nd	08:00	6774	'215' 00000
Friday	26th	19:30	5442	'947' 064 15 61947 51048 41846 81035 28194.....38193
Monday	29th	08:00	6774	'215' 00000

G11(III)

G11 log Sept/Oct

5815kHz	1755z	02/09 [270/00] Strong signal, weak noise	Fox	SUN
	1755z	04/09 [270/00] Good	RNGB	TUE
	1325z	07/09 [299/00] Medium/strong signal, strong noise	Fox	FRI
	1755z	09/09 [270/00] Strong signal	Fox	SUN
	1755z	11/09 [270/00] 1758z Fair BCQRM3 QSB2	Spectre	TUE

	1325z	15/09 [299/00] 1328z QSA 1 QRM1 QRN2 QSB2	Thomas	SAT
	1755z	16/09 [270/00] 1758z Fair QRM2	Thomas	SUN
	1755z	18/09 [278/33 Achtung 64021 ... 63901 Ende] 1805z Fair BCQRM3 QSB3	Spectre	TUE
	1755z	23/09 [278/33 64021 40288 06841 19620 50537…..63901] V.strong	Fox	SUN
	1755z	25/09 [270/00] Good	RNGB	TUE
	1755z	02/10 [270/00] Good	RNGB	TUE
	1325z	05/10 [299/00] Fair	RNGB	FRI
	1755z	07/10 [270/00] Good	RNGB	SUN
	1755z	09/10 [270/00] 1758z Fair QRN3 QSB2	Spectre	TUE
	1325z	12/10 [299/00] Weak	Hans	FRI
	1755z	16/10 [277/38 96493 38506 06917 87199 29153…..77350]	RNGB	TUE

G11 5815kHz 1755z 16/10 Transcript:

277/38 Achtung
96493 38506 06917 87199 29153 03515 47725 50261 44846 58522
44013 35754 85412 00184 58436 13926 74888 87555 66738 48757
24823 00909 58027 50413 95232 13403 79509 07579 17287 93027
20527 66825 62449 11611 01354 75305 77959 77390
Ende *Courtesy Spectre*

	1755z	21/10 [277/38 96493 etc] repeat of Tuesday	RNGB	SUN
	1755z	23/10 [270/00] 1758z Fair QRN2 QSB2	Spectre	TUE
	1325z	27/10 [293/32 A 21815 17743 .... 48241] 1334z Fair	Hans, RNGB	SAT
6433kHz	2000z	07/09 [262/00] Very strong signal, weak noise	Fox	FRI
	2000z	14/09 [262/00] 2003z Weak QRN4 QSB3	Spectre	FRI
	2000z	16/09 [262/00] Ende 2003z Strong	Thomas	SUN
	2000z	21/09 [262/00]	RNGB	FRI
	2000z	23/09 [262/00] 2003z Fair QRN3 QSB2	Spectre	SUN
	2000z	28/09 [264/34 Achtung 49118 ... 08798 Ende] 2010z Fair QRN3 QSB3	Spectre	FRI
	2000z	30/09 [264/34 49118 79072 74675 93094 29018..... 08798] Ende 2010z	Spectre , RNGB	SUN
	2000z	05/10 [262/00] Good	GaryH	FRI
	2000z	07/10 [262/00] Very strong signal, weak/moderate noise	Fox, RNGB	SUN
	1325z	19/10 [299/00] 1328z Weak QRN3 QSB3	Spectre	FRI

G11 6433kHz 2000z 19/10 Transcript:

269/34 Achtung
31093 68379 27768 49091 42806 06509 06506 52519 06694 11063
50977 44439 19426 26676 05606 97417 70453 60913 81881 10720
67206 74487 86276 39302 85017 07100 81104 17791 14937 67700
67016 66714 25399 47843 Ende *Courtesy Spectre*

	2000z	21/10 [267/34 31093 68379 27768 49091 42806…..47843] Strong	RNGB, Fox	SUN
	1755z	23/10 [270/00] 1758z Fair QRN2 QSB2	Spectre	TUE
	2000z	26/10 [262/00]	RNGB	FRI

S06 [1A]

PoSW's analytical log for S06, S06s:

As expected, seasonal changes of frequency in September, in some cases the same frequencies as were used in the springtime; we met them on the way up and now we are seeing them again on the way down!

Saturday 1600 or 1605 UTC Schedule:-
1-Sept-12:- 1605 UTC, 7,612 kHz, "134 134 134 00000". Changed from 6,983 used in the summer months. 7,612 used in March and April, alternative at 1600z should be 8,162.

8-Sept-12:- 1606 UTC, started approx. one minute late according to my clock, 7,612 kHz, "134 134 134 00000".

15-Sept-12:- 1600 UTC, 8,162 kHz, "134 134 134 00000", S8 to S9 on a clear frequency.

No sign of this one on Saturday 29-Sept at either 1600 or 1605 UTC; there are five Saturdays in this month and I think this otherwise weekly schedule takes a break on the fifth one whenever this is the case.

6-Oct-12:- 1605 UTC, 7,612 kHz, "134 134 134 00000", signal strength S6 to S7.

13-Oct-12:- 1600 UTC, 8,162 kHz, "134 134 134 00000".

20-Oct-12:- 1605 UTC, 7,612 kHz, "134 134 134 00000", S9 signal, audio seemed to be lacking in bass and there was a distinct background hum.

27-Oct-12:- 1605 UTC, 7,612 kHz, 2134 134 134 00000", peaking S9, interference free,
no problems with the audio.
Five minutes past five in the afternoon in these parts, clocks go back one hour for the end
of summertime, so called, tonight and since most S06 schedules stay on UTC they will be appearing one hour earlier local time until the spring.

Saturday 1930 or 1935 UTC Schedule:-
1-Sept-12:- 1930 UTC, 6,788 kHz, calling “843” for a “full message” - first from this schedule for a long time. DK/GC “205 205 37 37” (?), weak signal with our old pal “XJT” roaring away on a close frequency making for difficult copy. 6,788 was used for this schedule in April, or alternatively 4,958 at 1935 UTC.

8-Sept-12:- 1935 UTC, 4,958 kHz, - now that's more like it! S9 signal on a clear frequency.
Call “843”, DK/GC “205 205 37 37” - no doubt about it! Ended after 1945z with the usual DKDK GCGC and “00000”.

15-Sept-12:- 1935 UTC, 4,958 kHz, “843” and “205 205 37 37” again, good signal.

Unable to find this schedule on 29-September at either 1930 or 1935z, perhaps because since this is the fifth Saturday in the month and Ivan can't be asked to report for duty, as per “134” schedule above.

6-Oct-12:- 1935 UTC, 4,958 kHz, “843 843 843 00000”, back in the old routine. S7 to S8 on a clear frequency.

20-Oct-12:- 1930 UTC, 6,788 kHz, “843 843 843 00000”, strong “XJT” but in spite of this it was possible to hear a background hum similar to that heard on the 1605z S06, see above.

27-Oct-12:- 1935 UTC, 4,958 kHz, “843 843 843 00000”, S6 to S7. This will be my last number station logging of summertime. Tonight the clocks “fall back” by one hour. In this here dis-United Kingdom local time will be the same as UTC. Winter is a-coming in, and to confirm this today has been a cold, wet, miserable day. Met report from London Airport
Stansted Air Traffic Information channel, 127.175 on the VHF air band receiver, 1920 UTC:- Wind 330 degrees, 8 knots, CAVOK, temperature +3 degrees C, dew-point + 2 degrees C, QNH 1,019.

First + Third Saturdays in the Month 1900 + 2000 UTC Schedule but shifted by one and a half hours in October:-
1-Sept-12:- 1900 UTC, 6,942 kHz:- “314 314 314 00000”. Good signal, carrier with tone up at 1849z, single Rooshun “314” just after 1851z.
2000 UTC, 5,923 kHz, second sending, S9+ signal, inside 49 metre band, strong broadcaster on 5,920.

15-Sept-12:- 1900 UTC, 6,942 kHz, “314 314 314 00000”, good signal.
2000 UTC, 5,923 kHz, second sending, suffering slightly from the BC station 3 kHz lower.

6-Oct-12:- no sign of “314” at 1900 UTC on 6,942 kHz; however, strange time shifts have been observed with these Saturday evening UK time schedules in the spring and autumn so monitoring the usual frequencies produced the following:-
2030 UTC, 6,942 kHz, ninety minutes later than in September, “314 314 314 00000”.
2130 UTC, 5,923 kHz, second sending, the time in the Dis – United Kingdom is 10.30 pm.
The rock-crushing broadcaster still there on the LF side, reception much improved with the receiver in USB mode.

20-Oct-12:- 2030 UTC, 6,942 kHz, “314 314 314 00000”, S9 on a clear frequency.
2130 UTC, 5,923 kHz, second sending, strong broadcaster on 5,920.

First + Third Saturdays in the Month 1900 + 2000 UTC Schedule - another one, that is, and another time - shifter in October, moved by one hour.
15-Sept-12:- 1900 UTC, 5,317 kHz:- “416 416 416 00000”, strength S7
2000 UTC, 4,492 kHz, second sending, peaking S9. I lost track of this “416” schedule earlier in the year, probably because it had moved by one hour in the springtime, somewhat unusually for this family of number stations. Saw “416” schedule in E2K newsletter.

3-Oct-12:- no sign of “416” at 1900 UTC on 5,317 kHz, turns out it has moved by an hour, no doubt in the opposite direction to the springtime move:-
2000 UTC, 5,317 kHz, same frequency, “416 416 416 00000”.
2100 UTC, 4,492 kHz, second sending, S9+, very strong signal.

20-Oct-12:- 2001 UTC, 5,317 kHz, nothing heard until approx. one minute or so past the hour, strong SITOR or similar data signal on LF side, “416 416 416 00000”, peaking S9+.
2100 UTC, 4,492 kHz, second sending, also S9+.

Monday + Thursday 1900 or 1905 UTC Schedule:-
3-Sept-12, Monday:- 1900 UTC, 5,784 kHz, “349 349 349 00000”, S9 signal. The expected seasonal change of frequency, 7,982 kHz used in the summer months or 6,984 at 1905z.
Alternative 1905z sending should now be on 5,127 kHz.

10-Sept-12, Monday:- 1905 UTC, 5,127 kHz, “349 349 349 00000”, S9+, very strong signal.

13-Sept-12, Thursday:- 1905 UTC, 5,127 kHz, strong signal, “349 349 349 00000”.

17-Sept-12, Monday:- 1900 UTC, 5,784 kHz, “349 349 349 00000”, S9 with deep QSB.

20-Sept-12, Thursday:- 1900 UTC, 5,784 kHz, “349 349 349 00000”.

24-Sept-12, Monday:- 1900 UTC, 5,784 kHz, “349 349 349 00000”, somewhat weaker than usual, S7.

27-Sept-12, Thursday:- 1905 UTC, 5,127 kHz, “349 349 349 00000”.

4-Oct-12, Thursday:- 1905 UTC, 5,127 kHz, “349 349 349 00000”, continuing the theme in October.

8-Oct-12, Monday:- 1905 UTC, 5,127 kHz, “349 349 349 00000”, S9+ signal.

11-Oct-12, Thursday:- 1905 UTC, 5,127 kHz, “349 349 349 00000”.

15-Oct-12, Monday:- 1905 UTC, 5,127 kHz, “349 349 349 00000”.

18-Oct-12, Thursday:- a slight shift in frequency, 5,131 kHz I made it, but still “349 349 349 00000”.

22-Oct-12, Monday:- 1905 UTC, 5,127 kHz, seems to be stuck in the five minutes past the hour slot, “349 349 349 00000”, S9+.

Second + Fourth Mondays in the Month 1815 + 1915 UTC Schedule:-
10-Sept-12:- 1815 UTC, 13,475 kHz, "036 036 036 00000".
1915 UTC, 11,060 kHz, second sending both transmissions signal strength S6 to S7.

24-Sept-12:- 1815 UTC, 13,475 kHz, a "full message" for a change, calling "036", DK/GC "517 517 96 96", good signal, interference from a swept carrier which lives up here.
1915 UTC, 11,060 kHz, second sending, weaker than the first, S5.

25-Sept-12, Tuesday:- 1815 UTC, 13,475 kHz, next day repeats, S7 with swept carrier interference.
1915 UTC, 11,060 kHz, second sending, weak signal.

8-Oct-12:- unable to find a transmission at 1815 UTC, second sending found close to another number station:-
1915 UTC, 9,245 kHz, "451 451 451 00000", weak but clear signal. Heard off to one side on a receiver tuned to 9,243 kHz in readiness for the 1920 UTC E07 transmission, heterodyne from the two carriers noted, S06 started up on the quarter hour.

22-Oct-12:- 1815 UTC, 11,125 kHz, the first sending which eluded me on the 8th. No problem to find today, carrier on 11,125 1804z, tone about a minute later and a single "451" a couple of minutes after that, the usual S06 pre-transmission warm-up routine. And a full message too! Call "451", DK/GC "517 517 96 96", peaking S7 to S8, a couple of S-points weaker by the finish just after 1835z.
1915 UTC, 9,245 kHz, second sending, heterodyne from carrier of 1920z E07 on 9,243, not too much of a problem as E07 was a short "no message" and was gone by 2022 and 30 seconds UTC.

RNGB's sept logs across S06 and variants:

S06 September log:

Thursday 6th	19:00	5779	'349' 00000	
Saturday 8th	16:05	7612	'134' 00000	
Monday 10th	18:15	13475	'036' 00000	
	19:15	11060	'036' 00000	
Wednesday 19th	19:35	4958	'843' 205 37 04837 92268 47867 69457 16212.....49079	
Thursday 20th	19:00	5784	'349' 00000	
Saturday 22nd	16:05	7612	'134' 00000	
	19:35	4958	'843' 205 37 04837 92268 47867 69457 16212.....49079	
Monday 24th	19:15	11060	'036' 517 96 60235 93646 49270 45811 15226.....94602	

S06s September report:
Tuesday ID 427 has been sending nulls all month using frequencies 6960/11560/11807/12140 at 0730/0800/10/20
0740 and 0750 not found. Presumably between 7 and 11 Mhz.
Wednesday ID 745 stopped sending messages on the 12th and continued all month sending nulls on
9417/9972/11552/11854/12405/13934

S06s September log:

Mondays

3rd/10th	0700/0710 9220/8270 '371' 268 5 99228 77544 04816 56447 03176	
17/24th		'371' 264 5 19876 45637 28192 89476 34657
3rd/10th	1200/1210 9145/11460	'831' 952 6 20163 29076 56605 45562 52563 31067
17/24th		'831' 450 6 78374 56748 34908 78325 23990 56445

Tuesdays

4th/11th	0600/0610 14080/12355	'438' 916 5 98045 95672 61514 83302 46457
18th/25th		'438' 269 5 19287 45637 37375 67675 32898
4th/11th	0700/0715 5760/6930 '374' too weak to copy	
18th/25th		'374' 518 6 67423 80785 45327 67543 12132 57532
4th/11th	0800/0810 11635/10420	'352' 874 6 11991 17529 22967 20542 08878 59524
18th/25th		'352' 897 6 67452 13212 80956 56343 87656 23231
4th/11th	1000/1010 6410/7340 '893' 520 6 93055 77159 22493 53642 80311 42388	
18th/25th		'893' 546 7 68734 56574 89673 23275 90905 67451 76761
4th/11th	1230/1240 ? /5805	'278' no reports
18th/25th		
4th/11th	1500/1510 6464/7242 '537' 912 6 50418 58948 97654 59895 47337 59128	
18th/25th		'537' 980 6 56453 78695 43512 23197 80564 45439

Wednesdays

5th/12th	0530/0540 10835/12170	'153' 460 7 93055 77169 22793 53642 80311 42388 20528
19th/26th		'153' 486 7 89674 67503 24165 79803 56342 79884 09410
5th	0730/0740 7335/11830	'745' 208 6 67545 78674 89563 09785 12315 56534
5th/12th	0730/0740 7120/6415 '481' 957 6 94289 15244 21541 56567 48850 68867	
19th/26th		'481' 265 7 41649 04535 55115 75084 15559 91423 69325
5th/12th	0820/0830 7605/9255 '471' 206 5 71826 09876 45261 34489 98012	
19th/26th		'471' 258 6 05571 52052 24451 56743 21578 84240
5th/12th	0840/0850 9480/11040	'328' 901 5 15243 67483 78192 01928 78965
19th/26th		'328' 465 7 75555 47850 41321 23419 61019 92599 31835
5th/12th	1000/1010 13365/14505	'729' 816 5 67438 23990 78921 78960 34250
19th/26th		'729' 461 5 66479 59017 80729 45123 36551
5th/12th	1230/1240 7620/8105 '967' 840 5 2924?	
19th/26th		'967' 245 8 96281 84948 81125 39694 84499 45436 48285 70105

Thursdays

6th/13th (E17z)	0800/0810 14260/12930	‘674’ 908 5 31866 33823 41200 46641 32710
20th/27th		‘674’ 901 5 31353 56760 59797 42121 34308
6th/13th	0900/0910 12952/13565	‘167’ 280 5 42812 30239 44448 31828 81357
20th/27th		‘167’ 903 5 33906 82691 34399 47404 41909
6th/13th	0930/0940 8650/7385 ‘314’ no reports	
20th/27th		‘314’ 906 5 44724 42890 37123 41370 34941
6th/13th	1200/1210 12415/14212	‘425’ 907 6 84367 42315 34872 34371 31763 48624
20th/27th		‘425’ 908 6 87655 59229 96394 94894 32548 35035
6th/13th	1400/1410 5410/6770?	‘624’ no reports
20th/27th		

Fridays

7th/14th	0600/0610 6340/5470 ‘934’ 852 6 36040 81670 39703 34013 42698 98371	
21st/28th		‘934’ 512 6 89115 42828 16832 98425 25482 81264
7th/14th	0600/0610 7795/8695 ‘196’ 483 5 31023 47585 34095 86398 32879	
21st/28th		‘196’ 842 5 42331 30765 30645 39082 84923
7th/14th	0930/0940 12140/13515	‘516’ 972 8 34682 17455 55122 40995 14557 98045 95672 71514
21st/28th		‘516’ 948 7 82736 46574 83920 89326 49912 89236 23434

Saturday

1st	1200/1210 10350/8520	‘254’ 913 6 18273 45362 18978 54328 98985 44213

Repeated groups:

3rd/10th Sept 2012	**07.00**	**9220**	**‘371’ 268 5 99228 77544 04816 56447 03176**	
Weds	26 Oct 2011	12.00	7120	‘481’ 270 5 99228 77544 04816 56447 51269
Thurs	4 Aug 2011	09.00	12952	‘167’ 950 8 99228 77544 04816 56447 51269 03176 58842 55499
Weds	15 Dec 2010	12.40	6420	‘967’ 283 5 99228 77544 04816 56557 -5823?
Friday	21 Jan 2011	06.00	5460	‘934’ 867 5 99228 77544 04816 56557 51269
Thurs	24 Mar 2011	09.00	12952	‘167’ 948 5 99228 77544 04816 56557 51269
Weds	13 Apr 2011	19.00	9220	‘371’ 980 5 99228 77544 04816 56557 51269
Tues	1 Feb 2011	12.30	5810	‘278’ 415 6 99228 77544 04816 56557 51269 03176
Tuesday	27 Apr 2010	08.00	11635	‘352’ 867 9 99228 77544 04816 56557 51269 03176 58842 55499 72223

3rd/10th Sept 2102	**12.00**	**9145**	**‘831’ 952 6 20163 29076 56605 45562 52563 31067**	
Weds	19 Oct 2011	10.00	13365	‘729’ 486 5 20163 29076 54605 45562 52562
Tues	4 Jan 2011	12.30	5810	‘278’ 439 5 20163 29076 56705 45562 52562
Tues	21 Jun 2011	08.00	14373	‘352’ 871 6 20163 29076 56705 45562 52562 63207
Tues	7 Dec 2010	15.00	5070	‘537’ 946 8 20163 29076 56705 45562 52562 63207 21065 63450
Tues	16 Aug 2011	08.00	14373	‘352’ 470 6 20163 29076 57605 44562 52563 12076
Thurs	24 Mar 2011	14.00	5320	‘624’ 978 5 20163 29076 57605 45532 62630
Tues	19 Jul 2011	15.10	7744	‘537’ 961 8 20164 29076 56705 45562 52562 63207 21065 63450

4th/11th Sept 2012	**06.00**	**14080**	**‘438’ 916 5 98045 95672 61514 83302 46457**	
Weds	5 Jan 2011	10.00	12365	‘729’ 846 5 98045 95672 71514 83302 46457

5th/12th Sept 2012	**07.30**	**7120**	**‘481’ 957 6 94289 15244 21541 56567 48850 68867**	
Friday	9 Jul 2010	09.30	10290	‘516’ 432 7 94289 15244 21541 56567 43850 68867 20384
Weds	13 Oct 2010	12.40	8105	‘967’ 804 5 94289 15244 21541 56567 48850
Weds	1 Dec 2010	19.10	7520	‘371’ 982 5 94289 15244 21541 56568 48850

7th/14thSept 2012	**09.30**	**12140**	**‘516’ 972 8 34682 17455 55122 40995 14557 98045 95672 71514**	
Tues 21 Jun 2011		08.00	7245	‘418’ 269 5 34682 17455 55122 40995 14557
Thurs	27 Jan 2011	14.00	5320	‘624’ 870 5 34682 17455 55122 40995 14557
Tues	14 Dec 2010	12.40	6770	‘278’ 435 6 34682 17455 55122 40995 14557 98045
Weds	15 Dec 2010	12.00	7030	‘481’ 257 6 34682 17455 55122 40995 14557 98045
Tues	4 Jan 2011	15.00	5070	‘537’ 496 8 34682 17455 55122 40995 14557 98045 95672 71514
Weds	19 Oct 2011	07.30	7335	‘745’ 910 6 34682 17455 55122 40995 15447 98065

S06 October log:

Monday	1st	19:05	5127	‘349’ 00000
Tuesday	2nd	18:00	5890	‘286’ 00000
Saturday 6th		16:05	7612	‘134’ 00000
		19:35	4958	‘843’ 00000
		20:00	5317	‘416’ 00000
		20:30	6942	‘314’ 00000
		21:00	4492	‘416’ 00000
		21:30	5923	‘314’ 00000
Saturday 20th		19:30	6788	‘843’ 00000
		20:01	5317	‘416’ 00000
		20:30	6942	‘314’ 00000
		21:00	4492	‘416’ 00000
		21:30	5923	‘314’ 00000
Monday	22nd	18:15	11125	‘451’ 517 96 60235 93646 49270 45811 15226.....94602
		19:05	5127	‘349’ 00000
		19:15	9245	‘451’ 517 96 60235 93646 49270 45811 15226.....94602
Saturday 27th		16:05	7612	‘134’ 00000
		19:35	4958	‘843’ 00000

S06s October report:
ID 427 is now message sending, Tuesdays at 0730/0740. Beware of clock change next month, so this schedule may slip one hour?
ID 745 has become rather erratic of late, but expect it to return to 7335/11830 Weds at 0830/0840 for November.
Maybe with the shorter days now ID 624 may be propagating daytime. Not been reported for quite a while.
ID 167 not heard since 11th October. Also Saturday ID 254 was absent from its 1st Saturday of the month slot.
Many repeated message strings this month.

S06s October log:

Mondays

1st/8th	0700/0710 9220/8270 ‘371’ 260 5 20163 29076 57605 45562 52562	
15th/22nd		‘371’ 248 5 63721 78465 78930 92817 66321
1st/8th	1200/1210 9145/11460	‘831’ 572 6 52401 63919 92699 14600 74248 48754
15th/22nd		‘831’ 459 6 36453 78293 89216 56472 19982 08760

Tuesdays

2nd/9th	0600/0610 14080/12355	‘438’ 961 5 88620 58069 61732 74535 57440
16th/23rd		‘438’ 912 5 23897 47638 10109 28287 36746
2nd/9th	0700/0715 5760/6930 ‘374’ 915 6 46062 68672 94748 39685 30485 96632	
16th/23rd		‘374’ 829 6 88620 58069 61732 74537 57440 10597
2nd/9th	0730/0740 6512/8480 ‘427’ 980 5 43289 52537 53317 06675 41736	
16th/23rd		‘427’ 803 5 67342 79845 67423 13214 09784
2nd/9th	0800/0810 11635/10420	‘352’ 981 6 21767 53672 11834 81022 36904 41412
16th/23rd		‘352’ 907 6 67452 34531 35497 80956 45365 90881
2nd/9th	1000/1010 6410/7340 ‘893’ 570 6 05899 50387 45847 23013 89858 52343	
16th/23rd		‘893’ 241 5 67534 67698 08964 31254 67562
2nd/9yh	1230/1240 ? /5805	‘278’ NO reports
16th/23rd		
2nd/9th	1500/1510 6464/7242 ‘537’ 918 6 52401 63919 92699 14600 74248 48754	
16th/23rd		‘537’ 248 6 56871 12234 98562 89341 65832 38311

Wednesdays

3rd/10th	0530/0540 10835/12170	‘153’ 987 6 09394 76911 75155 92918 97067 58604
17th/24th		
3rd/10th	0730/0740 7120/6415 ‘481’ 925 6 16945 80744 86200 84706 42237 61736	
17th/24th		‘481’ 976 5 85320 65717 85945 50572 25395
3rd/10th	0730/0740 7335/11835	‘745’ 293 6 05899 52343 79628 42432 56075 56281
17th/24th	11854/12140	‘745’ 219 6 60583 54545 50128 99477 83574 24162
3rd/10th	0820/0830 7605/9255 ‘471’ 830 5 96111 10544 98003 68909 45279	
17th/24th		‘471’ 208 6 88620 58069 61732 74537 57440 24521
3rd/10th	0840/0850 9480/11040	‘328’ 970 5 45847 23521 47660 92883 69901
17th/24th		‘328’ 975 6 79302 53516 25616 56069 96813 14199
3rd/10th	1000/1010 13365/14505	‘729’ 840 5 82045 36717 24042 75956 31670
17th/24th		‘729’ 436 5 86578 42194 10580 88266 45334
3rd/10th	1230/1240 7620/8105 ‘967’ 420 5 (too weak to copy)	
17th/24th		

Thursdays

4th/11th (E17z)	0800/0810 14260/12930	‘674’ 291 5 68453 79856 12315 79834 34341
18th/25th		‘674’ 980 5 42981 81583 87990 41529 30610
4th/11th	0900/0910 12952/13565	‘167’ 283 5 56342 78563 90673 23141 67432
18th/25th		
4th/11th	0930/0940 8650/7385 ‘314’ 276 5 86204?	
18th/25th		
4th/11th	1200/1210 12415/14212	‘425’ 938 6 52441 27731 13543 72510 54059 10254
18th/25th		‘425’ 983 6 86157 83269 89835 87274 43589 45019
4th/11th	1400/1410 5410/6770?	‘624’ NO reports
18th/25th		

Fridays

5th/12th	0600/0610 6340/5470 ‘934’ 517 6 25480 11286 49374 54545 30857 10354	
19th/26th		‘934’ 578 6 49046 84446 88424 13459 94258 54503
5th/12th	0700/0710 7795/8695 ‘196’ 237 5 54777 85647 33851 65364 55865	
19th/26th		‘196’ 870 5 30787 31452 49046 84446 88424
5th/12th	0930/0940 12140/13515	‘516’ 489 7 02815 75516 90878 53614 42564 28446 25995
19th/26th		‘516’ 493 7 60386 03009 81413 94073 83531 94063 63156

Saturday

1st	1200/1210 10350/8520	‘254’ NRH - Moved elsewhere??

Repeated groups: This months loggings in **BOLD**

Monday	**1st Oct 2012**	**07.00**	**9220**	**‘371’**	**260 5 20163 29076 57605 45562 52562**
Weds	19 Oct 2011	10.00	13365	‘729’	486 5 20163 29076 54605 45562 52562
Tuesday	4 Jan 2011 12.30	5810	‘278’	439 5 20163 29076 56705 45562 52562	
Tuesday	21 Jun 2011	08.00	14373	‘352’	871 6 20163 29076 56705 45562 52562 63207
Tuesday	7 Dec 2010	15.00	5070	‘537’	946 8 20163 29076 56705 45562 52562 63207 21065 63450
Tuesday	16 Aug 2011	08.00	14373	‘352’	470 6 20163 29076 57605 44562 52563 12076
Thurs	24 Mar 2011	14.00	5320	‘624’	978 5 20163 29076 57605 45532 62630
Monday	10 Sept 2012	12.00	9145	‘831’	952 6 20163 29076 56605 45562 52563 31067

Monday 1st Oct 2012	**12.00**	**9145**	**‘831’**	**572 6 52401 63919 92699 14600 74248 48754**
Tues 2nd Oct 2012	**15:10**	**7242**	**‘537’**	**918 6 52401 63919 92699 14600 74248 48754**
Tuesday 21 Dec 2010	12.30	5810	‘278’	409 5 52401 63919 92699 14600 74248
Friday 18 Nov 2011	07.10	8215	‘196’	843 5 52401 63919 92699 14600 74248
Friday 25 Nov 2011	07.00	7150	‘196’	843 5 52401 63919 92699 14600 74248
Weds 22 Jun 2011	07.30	7335	‘745’	892 6 52401 63919 92699 14600 74248 48754
Thurs 12 July 2012	09:00	12952	‘167’	290 5 52401 63919 92699 14600 47248
Weds 18 July 2012	10:00	14580	‘729’	403 5 52401 63919 92699 14600 72438
Tues 2nd Oct 2012	**06.00**	**14080**	**‘438’**	**961 5 88620 58069 61732 74535 57440**
Tues 16 Oct 2012	**07.00**	**5760**	**‘374’**	**829 6 88620 58069 61732 74537 57440 10597**
Weds 17 Oct 2012	**08.20**	**7605**	**‘471’**	**208 6 88620 58069 61732 74537 57440 24521**
Weds 7 Dec 2011	12.00	7030	‘481’	509 6 88620 58069 61732 74537 57440 10597
Tuesday 6 Jul 2010	08.00	7245	‘418’	967 5 88620 68069 61732 74537 57440
Weds 17 Oct 2012	08.20	7605	‘471’	208 6 88620 58069 61732 74537 57440 24521
Weds 18 Oct 2012	12:40	8220	‘967’	823 5 88620 58069 61732 74537 57440
Tues 2nd Oct 2012	**08.00**	**11635**	**‘352’**	**981 6 21767 53672 11834 81022 36904 41412**
Monday 16 July 2012	12:10	12165	‘831’	204 5 21767 53672 11834 81022 36903
Weds 25 July 2012	07:30	7335	‘745’	209 6 21767 53672 11834 81022 36903 41412
Weds 3rd Oct 2012	**05:30**	**10835**	**‘153’**	**987 6 09394 76911 75155 92918 97067 58604**
Weds 18 July 2012	12:00	7765	‘481’	502 6 09394 76911 75155 92918 97067 58604
Sat 17 April 2010	10.10	7340	‘893’	210 5 09394 76911 75155 92918 96067
Friday 5th Oct 2012	**06:00**	**6340**	**‘934’**	**517 6 25480 11286 49374 54545 30857 10354**
Weds 27 June 2012	07:30	7335	‘745’	203 6 25480 11286 49374 54545 30857 10354
Friday 5th Oct 2012	09:30	12140	‘516’	489 7 02815 75516 90878 53614 42564 28446 25995
Friday 1st June 2012	06:00	7845	‘196’	430 5 02815 75516 90878 53614 42564
Friday 15 June 2012	06:00	7845	‘196’	803 5 02815 75516 90878 53614 42564
Tues 2nd Oct 2012	**10.10**	**7340**	**‘893’**	**570 6 05899 50387 45847 23013 89858 52343**
Tuesday 24 July 2012	08.00	14373	‘352’	971 6 05899 50387 45847 23013 89758 48758
Friday 19 Oct 2012	**06.00**	**6340**	**‘934’**	**578 6 49046 84446 88424 13459 94258 54503**
Friday 19 Oct 2012	07.00	7795	‘196’	870 5 30787 31452 **49046 84446 88424**

Other’s logs

September 2012:

4958kHz 1935z 15/09 [843 205 37 04837 ... 49079 205 37 00000] 1945z Weak QRN4 QSB3 Spectre SAT

4958kHz 1935z 15/09 Transcript:

843 205 37
04837 92268 47867 69453 16212 50642 46190 98976 46467 37976
96626 42798 56980 11603 44688 57069 38512 08085 34008 13628
57025 32779 81695 27966 52720 08468 ***** 56170 25703 14407
65605 13854 95928 39112 73693 35902 49079
205 37 00000
* = Not Heard *Courtesy Spectre*

4958kHz1935z 08/09[843 205 37 04837 ... 49079 205 37 00000] Strong signal, moderate noise M8, FR, Spectre SAT

843 205 37
04837 92268 47867 69457 16212
50642 46190 98979 46467 37976
96626 42798 56980 11603 44688
57059 35512 08085 34008 13628
57025 32779 81695 27966 52722
08468 11256 56170 25503 14407
65605 13854 95928 39112 73693
35902 49079 205 37 00000
Courtesy FR, Spectre

5127kHz1905z	10/09[349 00000] 1909z Fair QRN3 QSB2	Spectre	MON
1905z	13/09[349 349 349 00000] 1909z	tiNG,Spectre	THU
1905z	27/09[349 349 349 00000 R4m] 1909z QSA4 QRM1 QRN3 QSB1	tiNG	THU
5317kHz1900z	15/09[416 00000] 1904z Fair QRN3 QSB3	Spectre SAT	
5784kHz1900z	03/09[349 00000]	HJH, M8	MON
1900z	17/09[349 00000] 1904z Strong QRN2 QSB2	Spectre	MON
1900z	24/09[349 00000.....]1904z S9	M8, Spectre	MON
5923kHz 2000z	01/09 [314 00000] 2004z Fair QRN2 QSB2	Spectre	SAT
2000z	15/09 [314 00000] 2004z Fair BCQRM2 QSB2	Spectre	SAT
6942kHz 1900z	15/09 [314 00000] 1904z Fair QRN3 QSB2	Spectre	SAT
7612kHz1605z	01/09[134 00000] Strong signal, weak/moderate noise	FR	SAT
1605z	08/09[134 00000] Very strong signal, weak noise	FR	SAT
7912kHz1605z	22/09[134 00000] 1609z Fair QRN2 QSB2	Spectre	SAT

S06
October2012:

4958kHz1935z	27/10[843 00000] 1939z Strong	Hans	SAT
5127kHz1905z	04/10[349 349 349 00000 R] 1909z QSA5 QRM1 QRN1 QSB2	tiNG	THU
1900z	08/10[349 00000]	HJH, Hans	MON
1905z	11/10[349 00000] 1909z Fair QRN3 QSB2	Spectre	THU
5131kHz1905z	18/10[349 00000]1909z QSA4	MP, Spectre	
THU			
5784kHz1905z	22/10[349 00000]	HJH	MON
5890kHz1800z	02/10[286 286 286 00000 R] 1804z QSA4 QRN2	tiNG	TUE
6930kHz0715z	23/10[374 829 6 88620 58069 61732 74537 57440 10597 829 6 00000]0720z QSA4	MP	TUE
7612kHz1605z	27/10[134 00000] 1609z Strong	Hans	SAT

S06b No Reports

S06c No Reports

S06e No Reports

S06s
September 2012:

5470kHz0610z	21/09[934 512 6 (89115) 42828 16832 98425 25482 81264 512 6 00000] Weak Link11QRM	AB	FRI
6410kHz1000z	04/09[893 520 6 93055 77169 22493 53642 80311 42388 520 6 00000(s)] 1005z Weak QRN3 QSB3	Spectre	TUE
1000z	11/09[893 520 6 93055 77169 22493 53642 80311 42388 520 6 00000(s)] 1005z Weak QRN3 QSB3	Spectre	TUE
1000z	18/09[893 546 7 68734 56574 89673 23275 90905 67451 76761 546 7 00000(s)] 1006z Weak QRN3 QSB3	Spectre	TUE
1000z	25/09[893 546 7 68734 56574 89673 23275 90905 67451 76761 546 7 00000(s)] 1006z Weak QRN3 QSB3	Spectre	TUE
7335kHz0730z	05/09[745 208 6 67545 78674 89563 09785 12315 56534 208 6 00000] Strong signal	FR, Spectre	WED
0730z	12/09[745 208 6 67545 78674 89563 09785 12315 56534 208 6 00000(s)] 0735z Weak BCQRM3 QSB2	Spectre	WED
7340kHz1010z	04/09[893 520 6 93055 77169 22493 53642 80311 42388 520 6 00000(s)] 1015z Weak QRN3 QSB3	MP,Spectre	TUE
1010z	11/09[893 520 6 93055 77169 22493 53642 80311 42388 520 6 00000(s)] 1015z Weak QRN3 QSB3	Spectre	TUE
1010z	18/09[893 546 7 68734 56574 89673 23275 90905 67451 76761 546 7 00000(s)] 1016z Weak QRN3 QSB3	Spectre	TUE
1010z	25/09[893 546 7 68734 56574 89673 23275 90905 67451 76761 546 7 00000(s)] 1016z Weak QRN3 QSB3	Spectre	TUE
7385kHz0940z	20/09[314 906 5 44724 42890 37123 41370 34941 906 5 00000(s)] 0945z Weak QRN3 QSB3	Spectre	THU
0940z	27/09[314 906 5 44724 42890 37123 41370 34941 906 5 00000(s)] 0945z Weak QRN3 QSB3	Spectre	THU
7605kHz0820z	05/09[471 206 5 71826 09876 45261 34489 98012 206 5 00000(s)] 0825z Fair QRN3 QSB3	Spectre	WED
0820z	12/09[471 206 5 71826 09876 45261 34489 98012 206 5 00000(s)] 0825z Fair QRN3 QSB3	Spectre	WED
0820z	19/09[471 258 6 05571 52052 24451 56743 21578 84240 258 6 00000(s)] 0825z Fair QRN3 QSB3	Spectre	WED
0820z	26/09[471 258 6 05571 52052 24451 56743 21578 84240 258 6 00000(s)] 0825z Fair QRN3 QSB3	Spectre	WED
7620kHz1230z	19/09[967 245 8 96281 84948 81125 39694 84499 45436 48285 70105 245 8 00000(s)] 1236z Very Weak	Spectre	WED
1230z	26/09[967 245 8 96281 84948 81125 39694 84499 45436 48285 70105 245 8 00000(s)] 1236z Very Weak	Spectre, FR	WED
7795kHz0600z	07/09[196 483 5 31023 47585 34095 86398 32879 483 5 00000] Very strong, QRM	FR	SAT
8105kHz1240z	19/09 [967 245 8 96281 84948 81125 39694 84499 45436 48285 70105 245 8 00000(s)]1246z Very Weak	Spectre	WED
1240z	26/09[967 245 8 96281 84948 81125 39694 84499 45436 48285 70105 245 8 00000] Strong, QRM	FR	WED
8270kHz0710z	24/09 [371...too weak to copy...00000]0705z S1	M8	MON
8650kHz0930z	20/09[314 906 5 44724 42890 37123 41370 34941 906 5 00000(s)] 0935z Weak XJTQRM3 QSB3	Spectre	THU
0930z	27/09[314 906 5 44724 42890 37123 41370 34941 906 5 00000]0935z QSA3 QRM3	MP	THU
8695kHz0610z	07/09[196 483 5 31023 47585 34095 86398 32879 483 5 00000] Fair, QRM	FR	SAT
9145kHz1200z	03/09[831 952 6 20163 29076 56605 45562 52563 31067 952 6 00000]1205z S1	M8	MON
1200z	17/09[831 450 6 78374 56748 34908 78325 23990 56445 450 6 00000(s)] 1205z Very Weak QRN3 QSB3	Spectre	MON
1200z	24/09[831 450 6 78374 56748 34908 78325 23990 56445 450 6 00000(s)] 1205z Weak QRN3 QSB3	Spectre	MON
9255kHz0830z	05/09[471 206 5 71826 09876 45261 34489 98012 206 5 00000]0835z QSA4 QSB2	MP	WED
0830z	12/09[471 206 5 71826 09876 45261 34489 98012 206 5 00000(s)] 0835z Fair QRN3 QSB3	Spectre	WED
0830z	19/09[471 258 6 05571 52052 24451 56743 21578 84240 258 6 00000(s)] 0835z Fair QRN3 QSB3	Spectre	WED
0830z	26/09[471 258 6 05571 52052 24451 56743 21578 84240 258 6 00000(s)] 0835z Fair QRN3 QSB3	Spectre	WED
9480kHz0840z	26/09[328-465/7=75555 47850 41321 23419 61019 92599 31835]	Gert	WED

10420kHz0810z	04/09[352 874 6 11991 17529 22967 20542 08878 59524 874 6 00000]0813z QSA3	MP, M8	TUE
0810z	11/09[352 874 6 11991 17529 22967 20542 08878 59524 874 6 00000(s)] 0815z Fair QRN2 QSB2	Spectre	TUE
0810z	18/09[352 897 6 67452 13212 80956 56343 87656 23231 897 6 00000(s)] 0815z Weak QRN3 QSB3	Spectre	TUE
0810z	25/09[352 897 6 67452 13212 80956 56343 87656 23231 897 6 00000(s)] 0815z Weak QRN3 QSB3	Spectre	TUE
10835kHz0530z	05/09[153 460 7 93055 77169 22793 53642 80311 42388 20528 460 7 00000(s)] 0536z Fair QRN3 QSB3	Spectre	WED
0530z	12/09[153 460 7 93055 77169 22793 53642 80311 42388 20528 460 7 00000(s)] 0536z Fair QRN3 QSB3	Spectre	WED
11460kHz1210z	03/09[831 952 6 20163 29076 56605 45562 52563 31067 952 6 00000]1215z S7	M8	MON
1210z	17/09[831 450 6 78374 56748 34908 78325 23990 56445 450 6 00000(s)] 1215z Weak QRN4 QSB3	Spectre	MON
1210z	24/09[831 ??] Very weak, QSB5 during preamble, unreadable	ATC	MON
11635kHz0800z	04/09[352 874 6 11991 17529 22967 20542 08878 59524 874 6 00000] 0805z QSA4	MP, M8	TUE
0800z	18/09[352 ?????] Very weak, unreadable except for preamble	ATC	TUE
11560kHz0800z	18/09[427/00000] R3M	ATC	TUE
0800z	25/09[427 00000(s)] 0804z Fair QRN3 QSB2	Spectre	TUE
11635kHz0800z	04/09[352 874 6 11991 17529 22967 20542 08878 59524 874 6 00000(s)] 0805z Fair QRN2 QSB2	Spectre	TUE
0800z	11/09[352 874 6 11991 17529 22967 20542 08878 59524 874 6 00000(s)] 0805z Fair QRN2 QSB2	Spectre	TUE
0800z	18/09[352 897 6 67452 13212 80956 56343 87656 23231 897 6 00000(s)] 0805z Fair QRN3 QSB3	Spectre	TUE
0800z	25/09[352 897 6 67452 13212 80956 56343 87656 23231 897 6 00000(s)] 0805z Fair QRN3 QSB3	Spectre	TUE
11830kHz0740z	05/09[745 208 6 67545 78674 89563 09785 12315 56534 208 6 00000] Strong signal	FR	WED
0740z	12/09[745 208 6 67545 78674 89563 09785 12315 56534 208 6 00000(s)] 0745z STANAGQRM3 QSB2 Spectre		WED
12140kHz0930z	07/09[516 972 8 34682 17455 55122 40995 14557 98045 95672 71514 972 8 00000] Very strong,	FR	SAT
0930z	21/09[516 7 82736 46574 83920 89326 49912 89236 23434 948 7 00000]	MP	FRI
0930z	28/09[516 948 7 82736 46574 83920 89326 49912 89236 23434 948 7 00000]0935z QSA5 QRM2	Kopf, MP	FRI
12170kHz0540z	05/09[153 460 7 93055 77169 22793 53642 80311 42388 20528 460 7 00000(s)] 0546z Fair QRN3 QSB3	Spectre	WED
0540z	12/09[153 460 7 93055 77169 22793 53642 80311 42388 20528 460 7 00000(s)] 0546z Fair QRN3 QSB3	Spectre	WED
12355kHz0610z	18/09[438 264 5 14217 45637 37375 67675 32141 264 5 00000] 0615z Strong preamble, faded to very weak QSB5 at message start	ATC	TUE
0610z	25/09[438 269 5 19287 45637 37375 67675 32898 269 5 00000(s)] 0615z Weak QRN3 QSB3	Spectre	TUE
12415kHz1200z	13/09[425 907 6 84367 42315 34872 34371 31763 48624 907 6 00000]1205z S9+15	M8	THU
12952kHz0900z	06/09[167 280 5 42812 30239 44448 31828 81357 280 5 00000(s)] 0905z Fair QRN3 QSB3	Spectre	THU
0900z	13/09[167 210 6 42182 30239 44448 31848 81368 210 6 00000] 0905z Fair	ATC, M8	THU
0900z	20/09[167 903 5 33906 82691 34399 47404 41909 903 5 00000(s)] 0905z Fair QRN3 QSB2	Spectre	THU
0900z	27/09[167 903 5 33906 82691 34399 47404 41909 903 5 00000]0905z QSA5	MP	THU
13365kHz1000z	05/09[729 816 5 67438 23990 78921 78960 34250 816 5 00000]1005z QSA5	MP	WED
1000z	12/09[729 816 5 67438 23990 78921 78960 34250 816 5 00000(s)] 1005z Fair QRN2 QSB2	Spectre	WED
1000z	19/09[729 461 5 66479 59017 80729 45123 36551 461 5 00000(s)] 1005z Fair QRN3 QSB2	Spectre	WED
1000z	26/09[729 461 5 66479 59017 80729 45123 36551 461 5 00000(s)] 1005z Fair QRN3 QSB3	Spectre	WED
13515kHz0940z	21/09[516 948 7 82736 46574 83920 89326 49912 89236 23434 948 7 00000(s)] 0946z Fair QRN3 QSB2	Spectre	FRI
0940z	28/09[516 948 7 82736 46574 83920 89326 49912 89236 23434 948 7 00000(s)] 0946z Fair QRN3 QSB3	Spectre	FRI
13565kHz0910z	13/09[167 210 6 42182 30239 44448 31848 81368 210 6 00000] 0915z Fair	ATC, M8	THU
0910z	27/09[167 903 5 33906 82691 34399 47404 41909 903 5 00000]0915z QSA5	MP	THU
14080kHz0600z	11/09[438 916 5 98045 95672 61514 83302 464** 916 5 00000(s)] 0605z Fair QRN3 QSB3	Spectre	TUE
0600z	18/09[438 269 5 19287 45637 37375 67675 32898 269 5 00000(s)] 0605z Fair QRN3 QSB2	Spectre, ATC	TUE
0600z	25/09[438 269 5 19287 45637 37375 67675 32898 269 5 00000(s)] 0605z Weak QRN3 QSB3	Spectre	TUE
14212kHz1210z	13/09[425 907 6 84367 42315 34872 34371 31763 48624 907 6 00000]1215z S9+30	M8	THU
14260kHz0910z	06/09[167 280 5 42812 30239 44448 31828 81357 280 5 00000(s)] 0915z Fair CARRIERQRM3 QSB3	Spectre	THU
0910z	13/09[167 280 5 42812 30239 44448 31828 81357 280 5 00000(s)] 0915z Fair CARRIERQRM3 QSB2	Spectre	THU
0910z	20/09[167 903 5 33906 82691 34399 47404 41909 903 5 00000(s)] 0915z Fair CARRIERQRM3 QSB2	Spectre	THU
0910z	27/09[167 903 5 33906 82691 34399 47404 41909 903 5 00000(s)] 0915z Fair CARRIERQRM3 QSB2	Spectre	THU
14505kHz1010z	05/09[729 816 5 67438 23990 78921 78960 34250 816 5 00000]1015z QSA5	MP	WED
1010z	12/09[729 816 5 67438 23990 78921 78960 34250 816 5 00000(s)] 1015z Fair QRN2 QSB2	Spectre	WED
1010z	19/09[729 461 5 66479 59017 80729 45123 36551 461 5 00000(s)] 1015z Fair QRN3 QSB3	Spectre	WED
1010z	26/09[729 461 5 66479 59017 80729 45123 36551 461 5 00000(s)] 1015z Fair QRN3 QSB3	Spectre	WED

October2012:

5760kHz0700z	23/10[374 129 5????? ????? ????? 14531 51440 129 5 00000] Very Weak	ATC	TUE
6410kHz1000z	02/10[893 570 6 05899 50387 45847 23013 89858 52343 570 6 00000(s)] 1005z Weak QRN3 QSB3	Spectre	TUE
1000z	09/10[893 570 6 05899 50387 45847 23013 89858 52343] 1005z Weak QSB3	Hans, Spectre	TUE
7095kHz0700z	05/10[196 237 5 54777 85647 33851 65364 55865]	GD	FRI
7120kHz0730z	17/10[481 986 5 85820 65818 85945 50512 25395 986 5 00000] 0735z Weak	ATC	WED
0730z	24/10[481 976 5 85320 65817 85945 50582 25396 976 5 00000] 0735z Fair	ATC	WED

7335kHz0730z	03/10[745 293 6 05899 52343 70628 42432 56075 56281 293 6 00000(s)] 0735z Fair QRN3 QSB3	Spectre	WED
0730z	10/10[745 293 6 05899 52343 70628 42432 56075 56281 293 6 00000(s)] 0735z Fair QRN3 QSB3	Spectre	WED
7340kHz1010z	02/10[893 570 6 05899 50387 45847 23013 89858 52343 570 6 00000(s)] 1015z Weak QRN3 QSB	Spectre	TUE
1010z	09/10 Weak for first two minutes, then disappeared 1005z QSB3	Hans	TUE
1010z	16/10[893 241 5 67534 67698 08964 31254 67562] 1015z Strong	Hans	TUE
1010z	23/10[893 241 5 67534 67698 08964 31254 67562] 1015z Strong	Hans	TUE
7605kHz0820z	03/10[471 830 5 96111 10544 98003 68909 15279 830 5 00000(s)] 0825z Weak QRN3 QSB3	Spectre	WED
0820z	10/10[471 830 5 96111 10544 98003 68909 15279 830 5 00000(s)] 0825z Weak QRN3 QSB3	Spectre	WED
0820z	24/10[471 208 6 88620 58069 61732 74537 57440 23521 208 6 00000]0825z S9	M8, ATC	WED
7620kHz1230z	24/10[very weak]1235z	M8	WED
8105kHz1240z	24/10[very weak]1235z	M8	WED
8270kHz0710z	15/10[371 248 5 63721 78466 78930 92817 66321 248 5 00000]0715z S2	M8	MON
9145kHz1200z	08/10[831 572 6 52401 63919 92699 14600 74248 48754 572 6 00000]1205z S1	M8, Hans	MON
1200z	15/10[831 459 6 36453 78293 89216 56472 19982 08760] 1205z Fair	Hans, M8 , Spectre	MON
1200z	22/10[831 459 6 36453 78293 89216 56472 19982 08760] 1205z Weak	Hans, Spectre	MON
9255kHz0830z	03/10[471 830 5 96111 10544 98003 68909 15279 830 5 00000(s)] 0835z Weak QRN3 QSB3	Spectre	WED
0830z	10/10[471 830 5 96111 10544 98003 68909 15279 830 5 00000(s)] 0835z Weak QRN3 QSB3	Spectre	WED
0830z	24/10[471 208 6 88620 58069 61732 74537 57440 23521 208 00000]0835z S9+10	M8, ATC	WED
9480kHz0840z	17/10[328.....] 0845z Very weak - too weak to read	ATC	WED
0840z	24/10[328 975 6 69302 59516 25616 56069 96813 14199 975 6 00000] 0845z Weak	ATC	WED
10420kHz0810z	02/10[352 981 6 21767 53672 11834 81022 36904 41412 981 6 00000(s)] 0815z Weak QRN3 QSB3	Spectre	TUE
0810z	10/10[352 981 6 21767 53672 11834 81022 36904 41412 981 6 00000(s)] 0815z Weak QRN3 QSB3	Spectre	TUE
10835kHz0530z	03/10[153 987 6 09394 76911 75155 92918 97607 58601 987 6 00000(s)] 0535z Fair QRN3 QSB3	Spectre	WED
0530z	10/10[153 987 6 09394 76911 75155 92918 97607 58601 987 6 00000(s)] 0535z Fair QRN3 QSB3	Spectre	WED
11040kHz0850z	17/10[328.....] 0855z Very weak - too weak to read	ATC	WED
0850z	24/10[328 975 6 69302 59516 25616 56069 96813 14199 975 6 00000] 0855z Weak	ATC	WED
11460kHz1210z	08/10[831 572 6 52401 63919 92699 14600 74248 48754 572 6 00000]1215z S5	M8, Hans	MON
1210z	15/10[831 459 6 36453 78293 89216 56472 19982 08760] 1215z Strong	Hans, M8	MON
1210z	22/10[831 469 6 36453 91293 19216 56462 19982 08962 469 6 00000] Weak QRM3	ATC, Hans	MON
	Note: This was a very weak signal, with moderate noise so I can't guarantee the full accuracy of the numbers, especially the last two groups		
1210z	29/10[831 x3/00000] 1213z Weak	ATC	MON
11635kHz0800z	02/10[352 981 6 21767 53672 11834 81022 36904 41412 981 6 00000(s)] 0805z Weak QRN3 QSB3	Spectre	TUE
0800z	09/10[352 981 6 21767 53672 11834 81022 36904 41412 981 6 00000(s)] 0805z Weak QRN3 QSB3	Spectre	TUE
11830kHz0740z	03/10[745 293 6 05899 52343 70628 42432 56075 56281 293 6 00000(s)] 0745z Fair QRN3 QSB3	Spectre	WED
0740z	10/10[745 293 6 05899 52343 70628 42432 56075 56281 293 6 00000(s)] 0745z Fair QRN3 QSB3	Spectre	WED
12140kHz0930z	19/10[516 493 7 60386 03009 81413 94073 83531 94063 63156 493 7 00000(s)] 0936z Fair QRN3 QSB3	Spectre	FRI
0930z	26/10[516 493 7 60386 03009 81413 94073 83531 94063 63156 493 7 00000(s)] 0936z Fair QRN3 QSB3	Spectre	FRI
12170kHz0540z	03/10[153 987 6 09394 76911 75155 92918 97607 58601 987 6 00000(s)] 0545z Fair QRN3 QSB3	Spectre	WED
0540z	10/10[153 987 6 09394 76911 75155 92918 97607 58601 987 6 00000(s)] 0545z Fair QRN3 QSB3	Spectre	WED
13365kHz1000z	17/10[729 436 5 86578 42194 10580 88266 45334 436 5 00000]1005z S9+10	M8, ATC	WED
1000z	24/10[729 436 5 86578 42194 10580 88266 45334 436 5 00000]1005z S9+10	M8, ATC, JO	WED
13515kHz0940z	19/10[516 493 7 60386 03009 81413 94073 83531 94063 63156 493 7 00000(s)] 0946z Fair QRN3 QSB3	Spectre	FRI
0940z	26/10[516 493 7 60386 03009 81413 94073 83531 94063 63156 493 7 00000(s)] 0946z Fair QRN3 QSB3	Spectre	FRI
14212kHz1210z	18/10[425 983 6 86157 83269 89835 87274 43589 45019 983 6 00000(s)] 1215z Fair BCQRM3 QSB3	Spectre	THU
14505kHz1010z	17/10[729 436 5 86578 42194 10580 88266 45334 436 5 00000]1015z S9+20	M8, ATC	WED
1010z	24/10[729 436 5 86578 42194 10580 88266 45334 436 5 00000]1015z S9+20	M8, ATC	WED

S11a[III]

S11a log Sept/Oct

5815kHz	1020z	05/09 [221/00]1023z QSA3 QSB2	Marco	WED
	1020z	26/09 [221/00]1023z Scarcely audible QSA2	Marco	WED
7317kHz	0915z	04/09 [484/00] Konec 0918z QSA4	Marco , RNGB	TUE
	0915z	07/09 [484/00] Weak/medium signal, strong noise	Fox	FRI
	0915z	14/09 [484/00] Konec 0918z S2	Malc	FRI
	0915z	21/09 [480/38 85415 76151 06326 96789 52051…..33209] Fair	RNGB, Marco	FRI
	0915z	25/09 [484/00] Konet 0918z QSA4	Marco	TUE
	0915z	28/09 [484/00] 0918z QSA4	Marco	FRI
	0915z	02/10 [484/00] 0918z Weak QRN3 QSB3	Spectre	TUE
	0915z	05/10 [484/00]	RNGB	FRI
	0915z	16/10 [484/00]	RNGB	TUE
	0915z	19/10 [484/00]	RNGB, Spectre	FRI
	0915z	23/10 [484/00]	RNGB	TUE
9960kHz	1020z	04/09 [425/36...] Konec 1031z QSA4	Marco	TUE
	1020z	07/09 [425/36 00933 63610 73744 96900 08851…..43981]	Marco	FRI
	1020z	21/09 [426/00] Good, Konec 1023z	RNGB, Marco	FRI
	1020z	25/09 [426/00] Konet 1023z QSA4	Marco	TUE
	1020z	02/10 [424/38 59215 43094 69631 98227 76760…..67077] Good	RNGB	TUE
	1020z	05/10 [424/38 59215 etc] repeat of Tuesday	RNGB	FRI
	1020z	16/10 [426/00]	RNGB, Spectre	TUE
	1020z	19/10 [426/00]	RNGB, Spectre	FRI
	1020z	23/10 [426/00]	RNGB	TUE
16112kHz	1015z	03/09 [475/00]1018z QSA3	Marco	MON
	1015z	06/09 [475/00]	RNGB	THU
	1015z	24/09 [475/00] 1018z Weak QRN3 QSB3	Spectre	MON
	1015z	01/10 [475/00] 1018z Fair QRN3 QSB3	Spectre	MON
	1015z	04/10 [475/00]	RNGB	THU
	1015z	08/10 [4??/?? 32698….] Too weak to copy	RNGB	MON
	1015z	15/10 [475/00] 1018z Fair	Hans	MON
	1015z	22/10 [475/00] Fair	Hans, Spectre	MON

S21 [XIV]
September 2012:

4454kHz	1855z	04/09[349 msg txt] Audio weak, poor	HJH, FR	TUE
	1842z	06/06[454 794 30, repeat from 04/09] Weak signal, very strong noise	FR	THU

454 794 30
87455 64099 34187 47081 03435
30123 17360 29289 29428 54705
92370 50721 19253 30916 73094
46153 93436 91501 97965 29846
36529 44765 00242 21106 17927
97580 83463 32973 88977 90656
000 *Courtsey FR*

	1842z	13/09[454 794 30 87455…90656 794 30 000]1854 same msg as M45 @ 1802z QSA2 QRM1 QRN2 QSB3	tiNG, M8	THU
	1842z	25/09[454 794 30 87455 ... ***** 000] Strong signal, QRM, QSB	FR	TUE
	1842z	27/09[454 R4m 794 794 30 30 87455 64099 … 90656 794 794 30 30 000] 1854z QSA4 QRM2 QRN2 QSB2	tiNG	THU
4570kHz	1942z	20/09[477 751 30 21966 24298 … 45302 571 30 000] QSA2 QRN 2 QSB2	tiNG	THU
4854kHz	1842z	20/09[454 794 30 87455 64099 … 90656 794 794 30 30 000] QSA3 QRN2 QSB3	tiNG	THU
4855kHz	1842z	06/09[454.....] Very poor	HJH	THU
	1842z	18/09[454 794 30 87455 64099....90656 794 30 000] QSA3 QRM1 QRN2	tiNG, HJH	TUE
	1842z	25/09[454 794 30 87455 ... 90656 000] Strong signal	tING, FR	TUE

454 794 30
87455 64099 34187 47081 03435
*0123 11660 29289 29428 04706
90370 50721 09267 30916 73094
46153 93436 91501 97965 29846
36529 44765 00242 21106 17927
97580 83463 32973 ***** *****
000 *Courtesy FR*

October2012:

4454kHz	1842z	02/10[454 794 30 87555 ... 90656 794 30 000]	AB, HJH, tiNG	TUE
	1842z	10/09[454 101 35 83923 96160 ... ???] 1854z QSA3 QRN3 QSB4	tiNG	TUE
	1842z	16/10[454 101 35 83923 96160 .... 94091] Fair/Strong QSB3	Hans	TUE
4854kHz	1842z	02/10[454 794 30 87555 ... 90656 794 30 000]	AB, HJH, tiNG	TUE

454 794 30
87455 64099 34187 47081 03435 30123 17360 29289 29428 54705
92370 50721 19253 30916 73094 46153 93436 91501 97965 29846
36529 44765 00242 21106 17927 97580 83463 32973 88977 90656
794 30 000 *Courtesy AB*

1842z	04/10[454 R4m 794 30 87455 64099 ... 88977 90656 794 30 000] 1854z QSA4 QRN2 QSB2	tiNG	THU
1842z	10/09[454 101 35 83923 96160 ... ???] 1854z Faded out after Grp32 QSA3 QRN3 QSB4	tiNG	TUE
1842z	16/10[454 101 35 83923 96160 .... 94091] Weak modulation	Hans	TUE
1842z	18/10[454 101 35 83923 ... 94091 101 35 000]1854z QSA3 QRM3	MP	THU

454 101 35
83923 96160 95578 95619 75652
40947 12889 95810 97727 69500
99121 00392 70832 03539 44538
93228 37612 42035 69854 23259
49451 84090 54582 10526 22696
20824 69245 46214 19410 74747
28880 97768 72730 88997 94091
101 35 000 *Courtesy MP*

Excellent S21 logs from Spectre also

V02a [XVIII]

This UK breakfast time Spanish language number station starting to become a better signal as we move towards the dark mornings of winter. Actually, the problem is not so much weak signal strength but the very low level of modulation. Quite often the signal strength has been a not particularly bad S5 or S6 but was inaudible due to the modulation being far short of 100%. After all, the once a month Sunday E06 is always very weak in terms of carrier strength, usually hardly moving the S-meter, but is always readable due to the deep mod level of the lower side-band suppressed am signal. Copy of the 0700z V02a on 5,883 kHz is made even more difficult due to the strong DRM broadcast station on the LF side which means that the receiver needs to be in either narrow AM or USB which further reduces intelligibility.

2-Sept-12, Sunday:- 0700 UTC, 5,883 kHz, "Atencion, 21441 33772 46112", S9 but audio low.

15-Sept, Saturday:- 0700 UTC, 5,800 kHz, started up on the wrong frequency; 5,800 is used for the related MCW Morse transmission in the previous hour. Someone dozing off at the controls, maybe! "Atencion, 62272 84012 88031". S7, at least 5,800 is clear of the DRM signal. However, someone realised their error; vanished from 5,800 around 0702z and came up on the correct frequency 5,883.

29- Sept-12, Saturday:- 0700 UTC, 5,883 kHz, "Atencion, 73452 86771 00112", peaking S9 carrier strength, the DRM on the LF side very strong this morning.

30-Sept-12, Sunday:- 0700 UTC, 5,883 kHz, appeared to be just a plain carrier with no voice until just before 0705z when numbers in Spanish could be heard, modulation level even lower than normal, DRM very strong.

6-Oct-12, Saturday:- no sign of the V02a at 0700 UTC on either 5,883 or 5,800 kHz but there was a plain carrier on 5,898, the frequency used at 0800z. Checked again at around 0712z, V02a in progress on 5,883 and carrier gone from 5,898.

7-Oct-12, Sunday:- 0700 UTC, 5,883 kHz, another voiceless carrier, peaking S9 with deep QSB. V02a YL in progress when checked again at 0710z.

13-Oct-12, Saturday:- 0702 UTC, 5,883 kHz, tuned in a couple of minutes past the hour expecting to catch the tail end of the call-up but was already into 5Fs, must have started early.

20-Oct-12, Saturday:- 0700 UTC, 5,883 kHz, "Atencion, 48361 52682 64121". Peaking S9 with deep QSB, audio somewhat better than usual, DRM on LF side as strong as ever.
0800 UTC, 5,898 kHz, "48361 52682 64121", as earlier. S6 to S7 on a clear frequency.

21-Oct-12, Sunday:- 0800 UTC, 5,883 kHz, starting up on the wrong frequency for 0800z,
5,883 was active when monitored around 0720z, missed start. "Atencion, 04222 17641 21071". However, as is often the case, someone in Cuba must have woken up with a jolt and made a grab for the frequency selector controls; vanished approx 45 seconds past the hour and re-appeared on the correct frequency, 5,898 kHz.

September 2012:

4028kHz0100z	07/09 qrn5 barely heard	Ggs	FRI
0100z	21/09[64486 70711 80646] qrn5	Ggs	FRI
5417kHz0200z	07/09 qrn5 barely heard	Ggs	FRI
5883kHz0700z	01/09[A25071 38412 42741 LG 64610] Preceeded by 11111	DanAr, PLdn	SAT
0700z	02/09[A21441 33752 46112] Weak, QSB2	DanAr, PLdn	SUN
0700z	03/09[A71341 84772 07101 LG 06236] -intro with audio cut-	DanAr, PLdn	MON
0700z	04/09[A 08512 12832 25361 LG 30304]	DanAr, Ggs	TUE
0700z	06/09[A ????? 35411 48732 LG 85721] -weak signal-	DanAr	THU
0700z	07/09[A44402 57732 61251] Weak	PLdn, DanAr	FRI
0701z	08/09[A611-- 1551 ---------] Very weak, QRN3	PLdn	SAT
0700z	11/09[A 70032 91662 84002 LG 8277?] Late, Cuban blackout effect?	DanAr	TUE
0700z	13/09[A62711 73441 85171] Fair	PLdn	THU
0700z	14/09[A27081 31311 43642] Fair, QSB3,QRN2	PLdn	FRI
0700z	17/09[A] vweak	gil	MON
0700z	18/09	Ggs	TUE
0700z	21/09 buried in noise	Ggs	FRI
0700z	24/09 ? ? ?	Ggs	MON
0700z	25/09[20711 32451 46471] end uk	Ggs	TUE
5898kHz0800z	11/09[A50032 71662 84002] strong	gil	TUE
0800z	24/09[74361 06101 18422] end uk	Ggs	MON
0800z	27/09[A61832 74261 87582] Fair	gil	THU
6762kHz0200z	01/09 vvweak, expected 5762	Gil	SAT
6768kHz0400z	03/09[????? 18?42 26641] 0441z	Ggs, Gil	MON

9240kHz1000z	05/09[A 06222 17852 31271 LG 76744]		DanAr, Ggs	WED
1000z	19/09[57632, 61061, 74386] QSA3 QSB2		HT, DanAr	WED
12180kHz1900z	06/09[36632 47362 51601]		Ggs	THU
13280kHz2000z	20/09 end 2040z qrn5		Ggs	THU

October2012:

5883kHz0700z	01/10[A21322 34651 47072 LG43403 Finalé(R3)] 0742z Fair	(42m03s)	PLdn	MON
0700z	05/10[A04572 07801 20232] Weak, QSB3		PLdn, GD	FRI
0700z	09/10[A64141 75771 88112 LG 56877]		DanAr	TUE
0703z	11/10[] weak caught late		gil	THU
0700z	18/10[A 00122 13741 26872 LG 28724]		DanAr	THU
0700z	19/10[A84321 08342 12761] Fair, QRM3 cw incursion: GN UI TIWA NUA, Possibly M08a		PLdn	FRI
0700z	20/10[A48361 52682 64121] Weak and noisy		PLdn	SAT
0700z	21/10[A54222 05641 21071] Weak and noisy		PLdn	SUN
0700z	22/10[A01472 14802 27231 LG48046 Finalé(R3)]0741z Very strong	(41m27s)	PLdn	MON
0700z	23/10[A07752 20181 33422] Strong		PLdn	TUE
0700z	25/10[A40211 53531 76062] Fair, QSB2		PLdn	THU
0706z	26/10[A10422 34481 47812] Strong, late start.		PLdn	FRI
0700z	27/10[A37421 41742 54171 LG nn207]0742z Weak and noisy	(41m57s)	PLdn	SAT
0700z	29/10[A31731 44162 56401] Fair, QSB3		PLdn	MON
0700z	30/10[A66752 70171 83411] Fair at start, QSB2 rising QSB4 by end		PLdn	TUE
5898kHz0800z	01/10[A21322 34651 47072 LGnn557 Finalé(R3)] 0842z Fair, QRM at end	(42m02s)	PLdn	MON
0800z	19/10[A84321 08342 12761] Fair, QRM2		PLdn	FRI
0800z	22/10[A01472 14802 27231] Fair, QRN2/3		PLdn	MON
0800z	23/10[A07752 20181 33422] Fair, QSB3 towards end.		PLdn	TUE
0800z	25/10 Atencion and few odd characters QSB3/4		PLdn	THU
0801z	26/10[A10422 34481 47812] Fair, late start, QSB2/4 at end.		PLdn	FRI
0800z	28/10[A65341 78661 (82001?)] Weak & noisy		PLdn	SUN
0800z	29/10[A31731 44162 56401] Fair at start QSB2, QSB4 at end		PLdn	MON
0800z	30/10[A66752 70171 83411] Fair to start, QRM2 QSB2/3		PLdn	TUE
6768kHz 0126z	06/10[i/p] weak USB		gil	SAT
9240kHz1000z	24/10[37542 41872 64201] QSA2		HT	WED

V13 [O]
September2012:

11430kHz0600z	20/09 - New Star #4. Musical intro + coded messages		AB	WED

October 2012:

7688kHz0503z	15/10 New Star in progress. USB		AB-HK	MON
7688kHz1300z	21/10 - Intro and message, Weak/Fair signal. QRT 1328z		Hans	SUN
7688kHz1310z	24/10 When first noticed - 13:30 end. Seems like it was in 2 minute groups then some sort of message.		HT	WED

V16 [O]

Nil Reports

V21 [O]

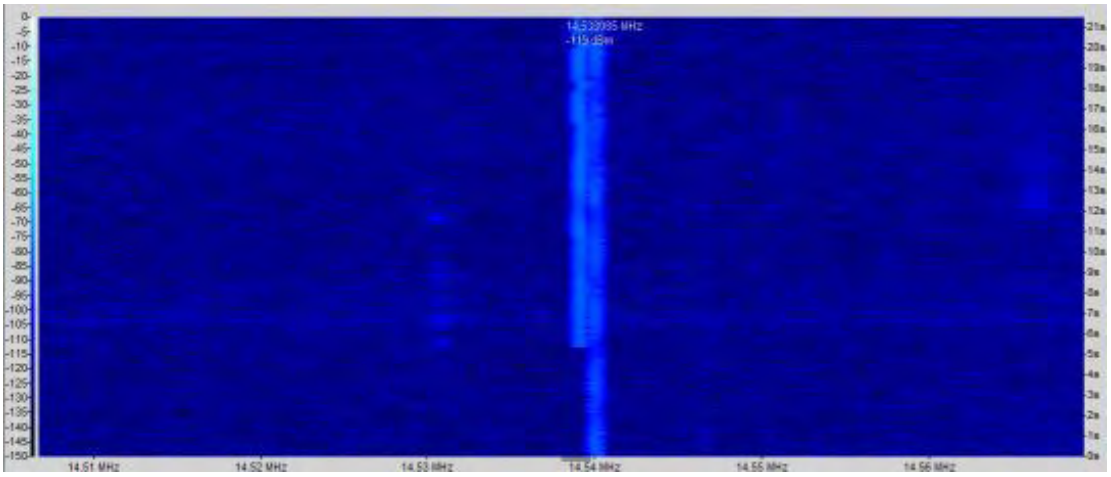
Nil Reports

Polytones:

XPA2
September 2012:

Sun/Tue

14538kHz1800z	02/09[03628 00001 00000 10140] Strong	(2m11s)	BR, PLdn	SUN
13538kHz1820z	02/09[03628 00001 00000 10140] Strong	(2m11s)	BR, PLdn	SUN
12138kHz1840z	02/09[03628 00001 00000 10140] Strong	(2m11s)	BR, PLdn	SUN



The first transmission (L) of the first schedule was seen to be quite close to another signal(R), but being stronger was not bothered by it

14538kHz1800z	04/09[02349 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1820z	04/09[02349 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
12138kHz1840z	04/09[02349 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14538kHz1800z	09/09[00486 00055 25433 17443] Strong	(2m53s)	PLdn	SUN
13538kHz1820z	09/09[00486 00055 25433 17443] Strong	(2m53s)	PLdn	SUN
12138kHz1840z	09/09[00486 00055 25433 17443] Strong	(2m53s)	PLdn	SUN
14538kHz1800z	11/09[00486 00055 25433 17443] Strong	(2m53s)	PLdn	TUE
13538kHz1820z	11/09[00486 00055 25433 17443] Strong	(2m53s)	PLdn	TUE
12138kHz1840z	11/09[00486 00055 25433 17443] Strong	(2m53s)	PLdn	TUE
14538kHz1800z	16/09[08846 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
13538kHz1820z	16/09[08846 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
12138kHz1840z	16/09[08846 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14538kHz1800z	18/09[04489 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1820z	18/09[04489 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
12138kHz1840z	18/09[04489 00001 00000 10140] Weak	(2m11s)	PLdn	TUE
14538kHz1800z	23/09[00985 00093 80801 31225]Strong	(3m23s)	PLdn	SUN
13538kHz1820z	23/09[00985 00093 80801 31225]Strong	(3m23s)	PLdn	SUN
12138kHz1840z	23/09[00985 00093 80801 31225]Strong	(3m23s)	PLdn	SUN
14538kHz1800z	25/09[00985 00093 80801 31225]Strong	(3m23s)	PLdn	TUE
13538kHz1820z	25/09[00985 00093 80801 31225]Strong	(3m23s)	PLdn	TUE
12138kHz1840z	25/09[00985 00093 80801 31225]Strong	(3m23s)	PLdn	TUE
14538kHz1800z	30/09[04490 00001 00000 10140] Fair	(2m11s)	PLdn	SUN
13538kHz1820z	30/09[04490 00001 00000 10140] Fair	(2m11s)	PLdn	SUN
12138kHz1840z	30/09[04490 00001 00000 10140] Fair	(2m11s)	PLdn	SUN

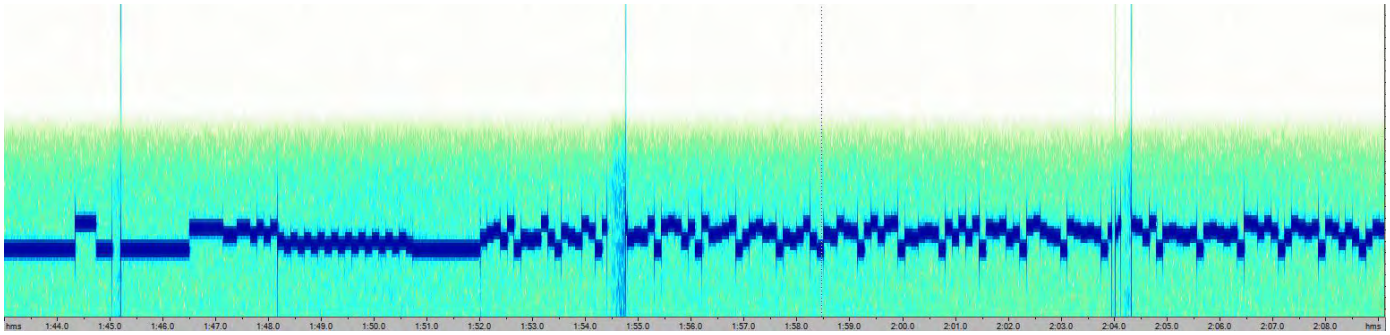
Tue

16169kHz0723z	25/09 No decode, end only		RNGB	TUE

Tue/Wed/Thu/Fri

14359kHz2000z	06/09[01284 00114 29275[77206]	(4m38s)	RNGB	THU
13384kHz2010z	06/09[01284 00114 29275[77206]	(4m38s)	RNGB	THU
11054kHz2020z	06/09[01284 00114 29275[77206]	(4m38s)	RNGB	THU
14359kHz2000z	11/09[09646 00074 62826 03371] Strong		PLdn	TUE
13384kHz2010z	11/09[09646 00074 62826 03371] Strong		PLdn	TUE
11054kHz2020z	11/09[09646 00074 62826 03371] Strong, QRM2		PLdn	TUE
13373kHz2100z	06/09[01284 00114 29275[77206]	(4m38s)	RNGB	THU
11551kHz2110z	06/09[01284 00114 29275[77206]	(4m38s)	RNGB	THU
10381kHz2120z	06/09[01284 00114 29275[77206]	(4m38s)	RNGB	THU

13373kHz2100z	12/09[09901 00109 93268 30403] Very strong	(3m34s)	PLdn	WED
11551kHz2110z	12/09[09901 00109 93268 30403] Very strong	(3m34s)	PLdn	WED
10381kHz2120z	12/09[09901 00109 93268 30403] Very strong	(3m34s)	PLdn	WED
14359kHz2000z	18/09[03558 00090 41184 21166] Very strong	(3m20s)	PLdn	TUE
13384kHz2010z	18/09[03558 00090 41184 21166] Very strong	(3m20s)	PLdn	TUE
11054kHz2020z	18/09[03558 00090 41184 21166] Fair	(3m20s)	PLdn	TUE
14359kHz2000z	21/09[04783 00088 72702 63103] Very strong	(3m18s)	PLdn	FRI
13384kHz2010z	21/09[04783 00088 72702 63103] Fair	(3m18s)	PLdn	FRI
11054kHz2020z	21/09[04783 00088 72702 63103] Very weak	(3m18s)	PLdn	FRI



13373kHz2100z 18/09[03558 00090 41184 21166] Very strong with breaks

13373kHz2100z	18/09[03558 00090 41184 21166] Very strong with breaks [see above]	(3m20s)	PLdn	TUE
11551kHz2110z	18/09[03558 00090 41184 21166] Very strong	(3m20s)	PLdn	TUE
10381kHz2120z	18/09[03558 00090 41184 21166] Strong	(3m20s)	PLdn	TUE
14359kHz2000z	28/09[06140 00142 79357 62400] Very strong	(4m00s)	PLdn	FRI
13384kHz2010z	28/09[06140 00142 79357 62400] Very strong	(4m00s)	PLdn	FRI
11054kHz2020z	28/09[06140 00142 79357 62400] Very strong	(4m00s)	PLdn	FRI
13373kHz2100z	28/09[06140 00142 79357 62400] Weak	(4m00s)	PLdn	FRI
11551kHz2110z	28/09[06140 00142 79357 62400] Very strong	(4m00s)	PLdn	FRI
10381kHz2120z	28/09[06140 00142 79357 62400] Weak	(4m00s)	PLdn	FRI

Fri

9391kHz0700z	21/09[06325 00110 59459.....27647]		RNGB	FRI

October2012:

Sun/Mon/Tue/Wed

14551kHz1100z	03/10[03028 00125 40966 03542] Good	(3m45s)	RNGB	WED
13454kHz1110z	03/10[03028 00125 40966 03542] Good	(3m45s)	RNGB	WED
12224kHz1120z	03/10[03028 00125 40966 03542] Good	(3m45s)	RNGB	WED
14551kHz1100z	09/10 NRH		PLdn	TUE
13454kHz1110z	09/10[07535 00125 64987 70017] Very weak	(3m46s)	PLdn	TUE
12224kHz1120z	09/10[07535 00125 64987 70017] Weak	(3m46s)	PLdn	TUE
14551kHz1100z	15/10[07993 00144 57542 34414]	(4m01s)	PLdn	MON
13454kHz1110z	15/10[07993 00144 57542 34414]	(4m01s)	PLdn	MON
12224kHz1120z	15/10[07993 00144 57542 34414]	(4m01s)	Hans, PLdn	MON
14551kHz1100z	21/10[07179 00135 37836 21177] Strong	(3m54s)	PLdn	SUN
13454kHz1110z	21/10[07179 00135 37836 21177] Strong	(3m54s)	PLdn	SUN
12224kHz1120z	21/10[07179 00135 37836 21177] Strong	(3m54s)	PLdn	SUN
14551kHz1100z	28/10[04335 00137 85657 53102] Fair	(3m56s)	PLdn	SUN
13454kHz1110z	28/10[04335 00137 85657 53102] Fair, QRM2	(3m56s)	PLdn	SUN
12224kHz1120z	28/10[04335 00137 85657 53102] Fair	(3m56s)	PLdn	SUN

Sun/Tue

16338kHz1500z	02/10		BR	TUE
14538kHz1520z	02/10[09384 00001 00000 10140]Fair	(2m13s)	PLdn	TUE
13538kHz1540z	02/10[09384 00001 00000 10140]Strong	(2m13s)	PLdn	TUE
16338kHz1500z	07/10[00245 00075 57288 72304] Strong, break in intro.	(3m10s)	PLdn	SUN
14538kHz1520z	07/10[00245 00075 57288 72304] Strong	(3m10s)	PLdn	SUN
13538kHz1540z	07/10[00245 00075 57288 72304] Strong	(3m10s)	PLdn	SUN
16338kHz1500z	09/10[00245 00075 57288 72304] Fair	(3m10s)	PLdn	TUE
14538kHz1520z	09/10[00245 00075 57288 72304] Very strong	(3m10s)	PLdn	TUE
13538kHz1540z	09/10[00245 00075 57288 72304] Fair	(3m10s)	PLdn	TUE

16338kHz1500z	14/10[04435 00001 00000 10140] Strong	(2m11s)	PLdn	SUN
14538kHz1520z	14/10[04435 00001 00000 10140] Strong	(2m11s)	PLdn	SUN
13538kHz1540z	14/10[04435 00001 00000 10140] Strong	(2m11s)	PLdn	SUN
16338kHz 1500z	16/10[02178 00001 00000 10140] Strong	(2m11s)	PLdn	TUE
14538kHz 1520z	16/10[02178 00001 00000 10140] Strong	(2m11s)	PLdn	TUE
13538kHz 1540z	16/10[02178 00001 00000 10140] Strong	(2m11s)	PLdn	TUE
16338kHz1500z	21/10[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14538kHz1520z	21/10[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
13538kHz1540z	21/10[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
16338kHz1500z	23/10[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14538kHz1520z	23/10[02178 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1540z	23/10[02178 00001 00000 10140] Very strong with background	(2m11s)	PLdn	TUE
16338kHz1500z	28/10[00830 00089 76452 06205] Very strong	(3m19s)	PLdn	SUN
14538kHz1520z	28/10[00830 00089 76452 06205] Very strong	(3m19s)	PLdn	SUN
13538kHz1540z	28/10[00830 00089 76452 06205] Very strong	(3m19s)	PLdn	SUN
16338kHz1500z	30/10[00830 00089 76452 06205] Fair	(3m19s)	PLdn	TUE
14538kHz1520z	30/10[00830 00089 76452 06205] Strong	(3m19s)	PLdn	TUE
13538kHz1540z	30/10[00830 00089 76452 06205] Strong	(3m19s)	PLdn	TUE

Fri/Sat

17462kHz1400z	05/10[00723 00107 12365 42017]		RNGB	FRI
16114kHz1420z	05/10[00723 00107 12365 42017]		RNGB	FRI
14828kHz1440z	05/10[00723 00107 12365 42017]		RNGB	FRI
17462kHz1400z	06/10[00723 00107 12365 42017] Strong	(3m40s)	PLdn	SAT
16114kHz1420z	06/10[00723 00107 12365 42017] Strong	(3m40s)	PLdn	SAT
14828kHz1440z	06/10[00723 00107 12365 42017] Strong	(3m40s)	PLdn	SAT
17462kHz1400z	12/12[05931 00001 00000 10140] Strong	(2m11s)	PLdn	FRI
16114kHz1420z	12/12[05931 00001 00000 10140] Strong	(2m11s)	PLdn	FRI
14828kHz1440z	12/12[05931 00001 00000 10140] Strong	(2m11s)	PLdn	FRI
17462kHz1400z	13/10[09574 00001 00000 10140] Strong	(2m11s)	PLdn	SAT
16114kHz1420z	13/10[09574 00001 00000 10140] Strong	(2m11s)	PLdn	SAT
14828kHz1440z	13/10[09574 00001 00000 10140] Very strong	(2m11s)	PLdn	SAT
17462kHz1400z	19/10[00826 00123 10833 05050] Strong	(3m45s)	PLdn	FRI
16114kHz1420z	19/10[00826 00123 10833 05050] Strong	(3m45s)	PLdn	FRI
14828kHz1440z	19/10[00826 00123 10833 05050] Strong	(3m45s)	PLdn	FRI

Sat 20/10 Missed

17462kHz1400z	26/10[08573 00001 00000 10140] Strong	(2m11s)	PLdn	FRI
16114kHz1420z	26/10[08573 00001 00000 10140] Strong	(2m11s)	PLdn	FRI
14828kHz1440z	26/10[08573 00001 00000 10140] Strong	(2m11s)	PLdn	FRI
17462kHz1400z	27/10[08573 00001 00000 10140] Strong,QRM2	(2m11s)	PLdn	SAT
16114kHz1420z	27/10[08573 00001 00000 10140] Strong,QRM2	(2m11s)	PLdn	SAT
14828kHz1440z	27/10[08573 00001 00000 10140] Strong	(2m11s)	PLdn	SAT

Digital, Incursions and Unexplained Signals

Thankfully the last couple of months have brought much improved HF conditions. Things were so bad over the summer months that on a couple of occasions I feared my antenna was damaged or even worse had a faulty receiver.

I am pleased to announce that I have made a little progress understanding the FSK200/1000 data protocol. Now initially I had thought that the lower of the FSK frequencies represented a 1 and the higher a 0 (as with FSK200/500) making the 32 bit block synchronization sequence as 0x82ed4f19. Then looking at a log of decode I noticed something interesting. The log is below but note that for brevity I am only showing the first six of the thirty six bytes in each FSK200/1000 block.

Block 01 : 82,ed,4f,19,ff,cc
Block 02 : 82,ed,4f,19,ff,aa
Block 03 : 82,ed,4f,19,ff,99
Block 04 : 82,ed,4f,19,ff,66
Block 05 : 82,ed,4f,19,ff,55
Block 06 : 82,ed,4f,19,ff,33
Block 07 : 82,ed,4f,19,ff,00
Block 08 : 82,ed,4f,19,fe,e9
Block 09 : 82,ed,4f,19,fe,da

Note how the fifth byte reduces by one every eight blocks this was a sure sign to me that there is a block number encoded after the synchronization sequence of each block. But also since the counter appears to be going down rather than up that my data is inverted. So then I altered Rivet so it inverted the FSK200/1000 binary data at which point things made more sense ..

Block 01 : 7d,12,b0,e6,00,33
Block 02 : 7d,12,b0,e6,00,55
Block 03 : 7d,12,b0,e6,00,66
Block 04 : 7d,12,b0,e6,00,99
Block 05 : 7d,12,b0,e6,00,aa
Block 06 : 7d,12,b0,e6,00,cc
Block 07 : 7d,12,b0,e6,00,ff
Block 08 : 7d,12,b0,e6,01,16
Block 09 : 7d,12,b0,e6,01,25

So then you can see that the block number is encoded into the fifth byte and the first three bits of the sixth byte.

So as examples ..

block 1 hex 0033 = 00000000001 10011 = 1
block 2 hex 0055 = 00000000010 10101 = 2

and so on. Through examination of received messages I also found that the total number of blocks in a message is encoded into the very first block (block 0) of a message. So the format of blocks is ..

00 000 SSSSSSSS *These are the sync bytes always* 0x7d12b0e6
01 008 SSSSSSSS
02 016 SSSSSSSS
03 024 SSSSSSSS

04 032 CCCCCCCC *The C bits make up the block number*
05 040 CCCXXXXX *X bits are unknown but are always the same depending on the line number*

06 048 XXXXXXXX
07 056 XXXXXXXX

08 064 TTTTXXXX *In block 0 the bits T show the number of blocks to follow*
09 072 XXXXXXXX
10 080 TTTXXXXX

(where the first two digits are the byte number followed by the bit number of the first bit in that byte).

The most common type of FSK200/1000 message is a 4 block one which I am pretty sure equates to a null or no traffic type message. These messages look like this ..

Block 0
00,00,00,00,00,00,60,00,10,00,00,00,00,08,20,04,00,04,00,08,40,0b,40,06,70,03,70,0e,20,0f,90,08

Block 0 is always exactly the same for all 4 block messages. My guess is that this block contains information on the number of encrypted groups to follow.

Block 1
00,33,14,00,bf,40,e6,e0,9c,10,ba,00,00,0d,00,08,12,00,b8,09,48,38,4b,71,c3,d2,a7,18,23,16,a2,0e

Block 1 is different for each 4 block message sent. It may contain a date , a message number or some kind of identifier.

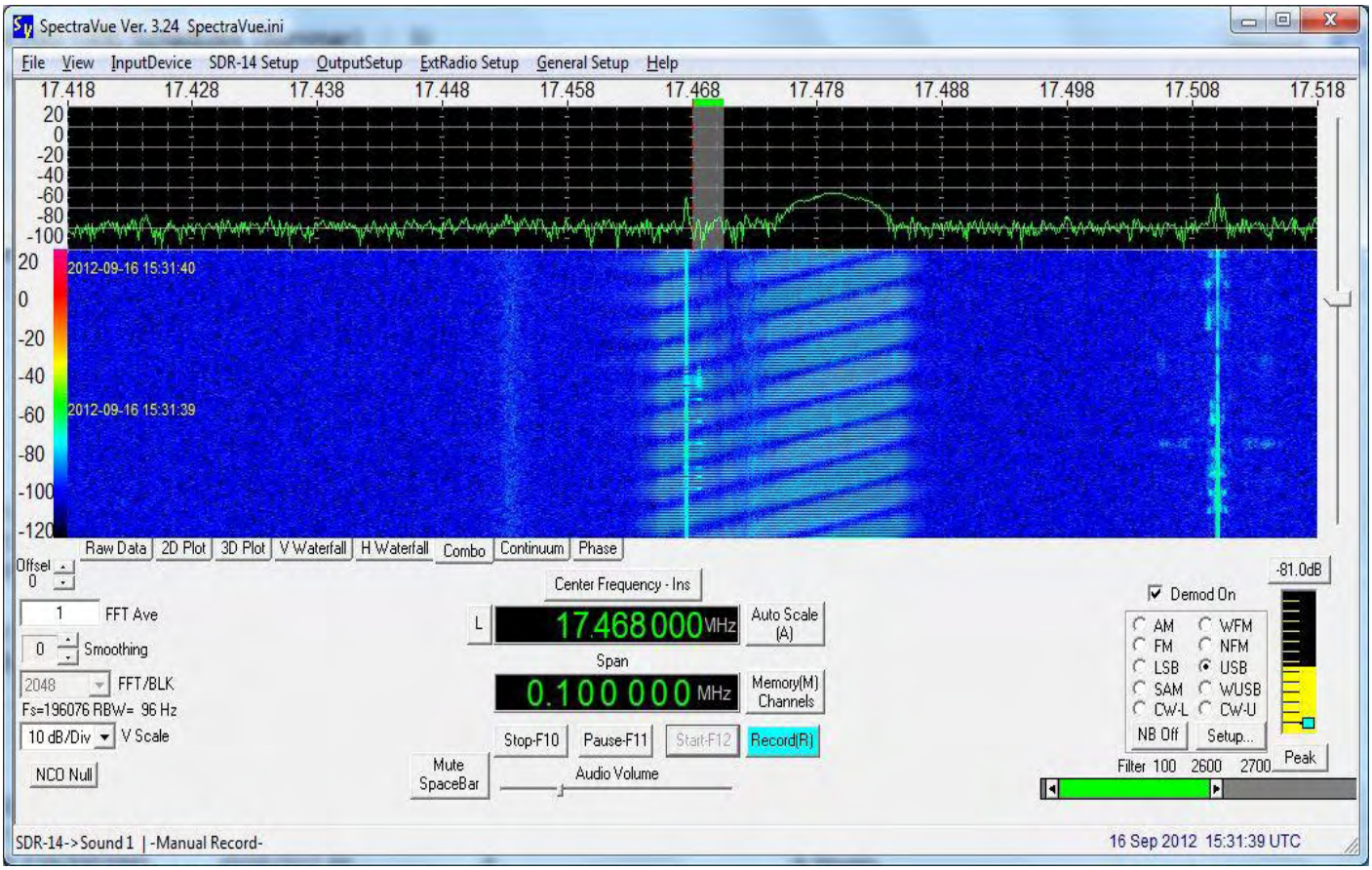
Block No 2
00,55,00,00,00,00,00,00,00,00,00,00,02,00,0f,00,0a,00,09,00,01,00,00,00,03,00,04,00,05,00,04

Block 2 is always exactly the same for all 4 block messages.

The final block of the message is a divider block which just consists of 0's.

As I mentioned I am sure that the information in these blocks "decodes" out as blocks of numbers resembling the content of XPA and XPA2 messages. Try as I might I can't understand how this is done. I had hoped that understanding how the block number and total block code were encoded would help me understand this but sadly this hasn't been the case.

If you want a challenge I would welcome any input on solving the mystery of how the FSK200/1000 messages are encoded. I have a vast range of past decodes I can let you have so there is plenty of material to look at. If you are interested please email me directly using the address at the end of this column.



At 15:30 Sunday 16th September 2012 there was an unfortunate clash between FSK200/1000 and the PLUTO OTHR (Over The Horizon Radar) !

As well as trying to decode FSK200/1000 I have been busy trying to keep up with its various circuits which have changed since my last column ..

Circuit Identifier	Day	Time	When	Comment
A	Saturday + Sunday	09:00/10/20	Depreciated	Not heard in October
B	Sunday	15:30/40/50	Weekly	Only 4 block messages which change weekly.
C	Saturday + Sunday	11:00/10/20	Weekly	Was alternate weeks now weekly. Messages change weekly.
D	Tuesday	17:00/10/20	Weekly	Only 4 block messages which change weekly.
E	Tuesday	21:00/10/20	Weekly	Only 4 block messages which change weekly.
F	Friday	17:00/10/20	Weekly	Large messages which change weekly.
G	Tuesday	14:00/10/20	Weekly	Only 4 block messages which change weekly.

Circuit A was an interesting one in that they only sent one message a month which was repeated four times , the only circuit to do this. However this circuit vanished in October which was the same time that circuit C switched from sending on alternate weeks to sending weekly so its possible it absorbed circuit A's traffic. In addition expert data monitor Leif D found a Sunday 08:00/10/20 FSK200/1000 schedule just before I went to press with the this desk report. We need to monitor this for a few weeks to determine if this schedule also transmits on a Saturday and if it is a weekly or an alternate week one. I suspect that this is the first time that FSK200/1000 transmissions have been looked at closely by amateur monitors and there is a great deal we don't know about these stations.

In addition to FSK200/1000 I am still monitoring FSK200/500 transmissions. The only schedules identified are still the Thursday 19:00/10/20 and the Saturday 12:00/10/20 transmissions. Most messages are null with messages being few and far between.
That's all from me for now. If you have any thoughts on the FSK200/1000 protocol , want to report any bugs or suggest features for Rivet or can think of any other data modes you think I should look at please email me.

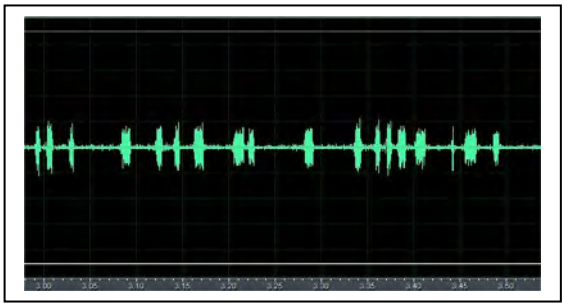
Fox's Mystery Crackle
Reported by Fox who first heard the signal in early September, on the Twente University SDR in Holland.

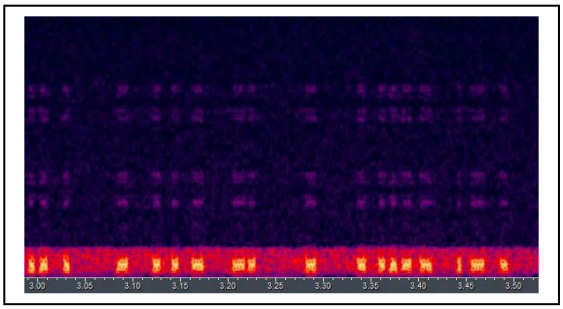
Freq: 14830 Time: 1050z Ceased by 1250z 08 Sep

Freq: 14830 Time: 0557 - 1209z Ceased suddenly 09 Sep

Fox recorded part of the transmission and made it available to E2k members via the Soundcloud upload site. A sample is now available on the ENIGMA 2000 website. Listen here to a sample of the Slow Crackle.

BR reported it sounded similar to "The Crackle" (XC), but it was much faster and the transmission freq was much higher than XC usually operates at, but remembered a similar signal reported a long time ago (in the days of the original ENIGMA group), that had been nicknamed "The Geiger" due to the nature of the sound.





08 Sep Waveform view The mystery crackle recorded by Fox Spectral view

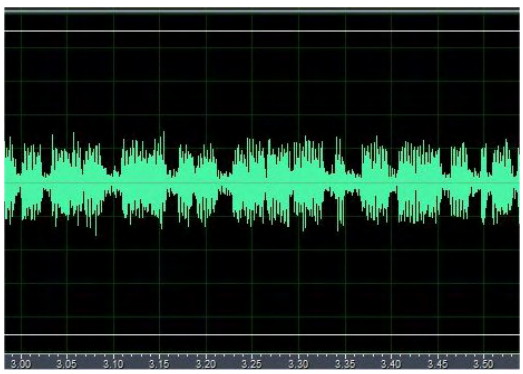
Fox found a YouTube video of a similar signal recorded on 14390kHz in the spring of 2012, which can be watched here; Crackling Noise YouTube Video

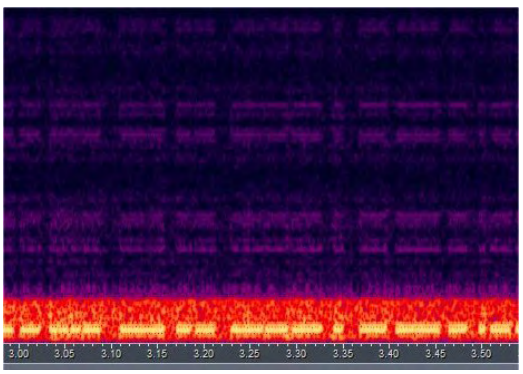
Slow Crackle to Fast Geiger

Monitoring 14830kHz found the signal transmitting daily and was more or less continuous, although there were short breaks in the transmission. The signal was clearly audible from the Dutch Twente SDR receiver and was also heard in S.E. England daily. Reception was best in the mornings and faded completely towards the afternoon.

A spin around the GlobalTuners online receivers showed that the signal was only being received in Europe but that the signal strength was not particularly strong in any location.

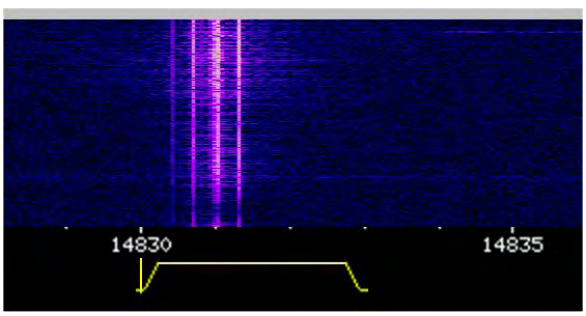
BR recorded a sample on 11 Sep that was faster than the original signal, and indeed Fox reported on Thu 13 Sep that the signal was now much faster and sounding more like a Geiger counter. BR suggested that the Crackle sound may be an idle or slow traffic mode and that the accelerated sound is the mode operating at full traffic mode, sending data. A sample of this faster signal is also available on the ENIGMA 2000 site. Listen here to a sample of the Fast Crackle





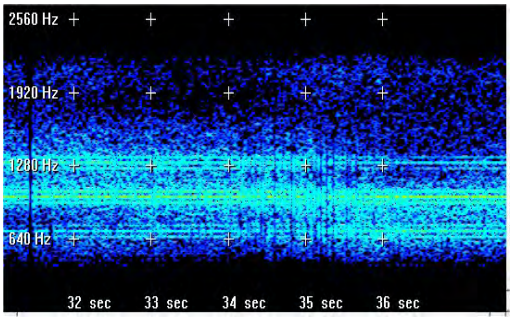
11 Sep Waveform view Analysis of the faster crackle signal recorded by BR Spectral view

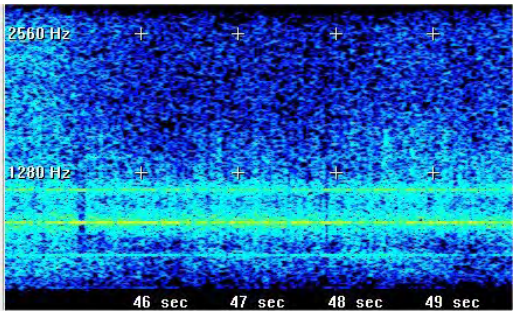
Some simple analysis of this signal showed that the signal consists of a sharp central peak, with a smaller peak 300Hz either side. This is demonstrated well by the picture below taken from a screen shot of the Twente SRD receiver.



The Waterfall view from the Twente SDR Receiver is shewn on the previous page.

Below is a comparison between the two recorded signals. Although some differences are apparent the signals appear to share the same 300Hz spacing with a central stronger peak.





Spectral Analysis of Fox's original sample *BR*

Spectral Analysis of BR's faster sample *BR*

Both BR & Ian Wraith (from the digidesk) came independently to the same suggestion that the signal was a form of PSK (Phase Shift Keying) data mode. A similar system listed on Leif Dehio's site http://signals.taunus.de/TABLES/PSK.HTML is the RUS-INTEL 2-TONE PSK, although speed and spacing appear to be different from our monitored signal.

It has also been suggested from an experienced source that the signal is nothing more than an unwanted transmitter product, possibly from a Russian naval transmitter, and contains no data.

Any further information on this signal would be appreciated.

University of Twente SDR Receiver

The University of Twente's online SDR is a remarkable achievement and a very competent receiver that performs extremely well. There is no registration or login required - just turn up. Freqs can be typed in or the Rx can be tuned via the mouse. The mouse is also be used to control the filtering and to zoom in or out of the area of the spectrum you are interested in.

As this is still in development and experimental the Rx may not be available at all times. Incredibly it is able to handle many listeners simultaneously - all tuning different freqs. On one visit it was handling 68 different listeners!

For listeners with no Rx or with QRM problems it will be an essential utility and for our American and worldwide members an opportunity to hear some of the European stations not heard in your own countries.

The University of Twente SDR is at http://websdr.ewi.utwente.nl:8901/ Brian - S.E. England

More holiday monitoring.

PLdn recalls……

This year my wife and I went to Morcambe Bay, a once popular seaside town on the north west coastline of England which lies across the counties of Lancashire and Cumbria. Of particular interest to me was the nearby City of Lancaster where I had spent some very happy times at Lancaster University.

Not being a driver we travelled there as part of a coach tour and had a room at the top of the hotel, which had three floors.
In front of the hotel was the sea front and views across the bay, all 91 square miles of it, and the Lakeland mountains on the otherside.

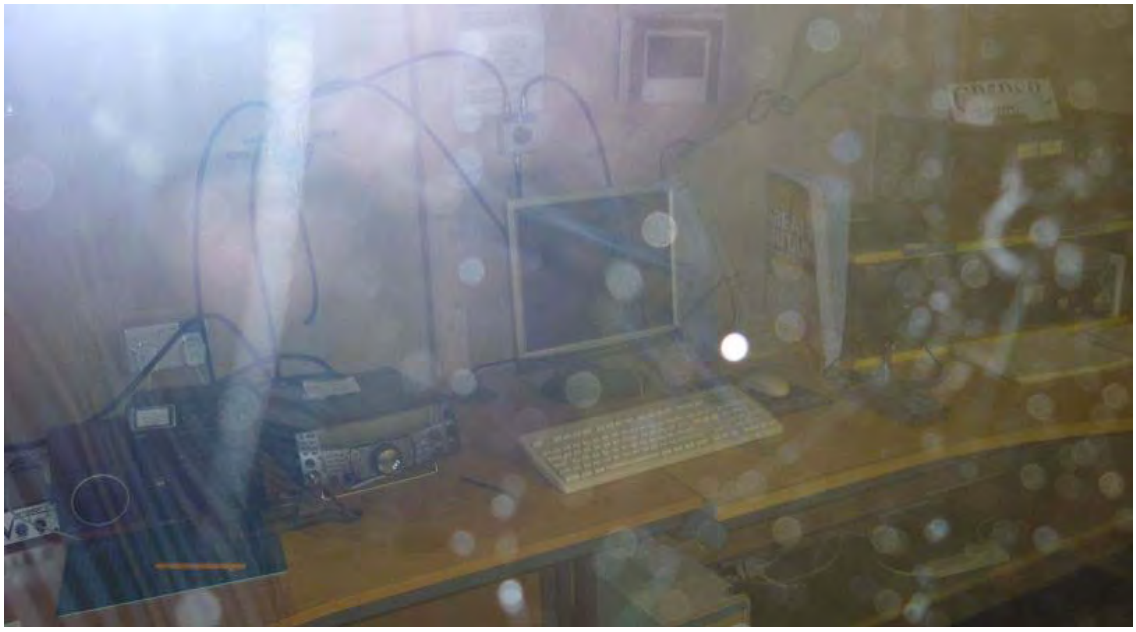
I took my usual radio stuff, having left my Sony SW55 at home with a sound operated recorder for the stuff I thought I'd miss.

The computer slots into its holder affixed to the lid of the main case

With the receiver and computer mounted on the case the entire set up was easily displayed; the wire antenna being extended just 3.5M between the receiver, wardrobe and far curtain.
The radio conditions were surprisingly quiet, just the odd burst of QRM and none of the PLT rubbish that pollutes the airwaves around my locale.

Looking from the window I could see a surprising number of longwires and discones; a search on the net revealed an active local amateur radio club.

Our first trip out was to a railway preservation site, the Ribble Steam Railway. http://www.ribblesteam.org.uk/ An excellent place it also had an amateur radio station there, in the poor picture below; its antenna system on the front cover.



GB5RSR

On our return to the hotel I took out the radio, set up and upon tuning up I was pleasantly surprised at reception.

The logs, now somewhat dated are shown below:

E06				
5731kHz2130z	06/07[315 521 15 91284 ... 10362 521 15 00000(s)] Strong AUTOINTERCEPT	(7m06s)	PLdn	FRI
E07				
12141kHz1720z	08/07[414 000] Veryweak		PLdn	SUN
13468kHz1700z	08/07[414 000] Very weak		PLdn	SUN
1700z	11/07[441 000] Weak		PLdn	WED
E07a				
5773kHz2040z	11/07[147 1 30704 53877 12210 ... 17664 000 000] Very strong		PLdn	WED
7473kHz2020z	11/07[147 1 30704 53877 12210 ... 17664 000 000] Very strong, BCQRM2		PLdn	WED
8173kHz2000z	11/07[147 1 30704 53877 12210 ... 17664 000 000] Very strong		PLdn	WED
7437kHz0430z	12/07[411 1 30704 538 77 12210 ... 17664 000 000] Very strong AUTOINTERCEPT	(8m45s)	PLdn	THU
8137kHz0450z	12/07[411 1 30704 538 77 12210 ... 17664 000 000] Very strong AUTOINTERCEPT	(8m45s)	PLdn	THU
9137kHz0510z	12/07[411 1 30704 538 77 12210 ... 17664 000 000] Strong, QRM2 AUTOINTERCEPT	(8m45s)	PLdn	THU
M08a				
5898kHz0505z	08/07[002 51 281 762] Fair, equip set up incorrectly, Other groups hrd 07831 08000		PLdn	SUN
0505z	09/07[grps18110 922n1 86n11]		PLdn	MON
0500z	10/07 NRH Band checked, condx good. Off watch 0515z		PLdn	TUE
XPA c				
11409kHz0600z	11/07[456 000 05195 00001 00000 10140] Very strong		PLdn	WED
13509kHz0620z	11/07[456 000 05195 00001 00000 10140] Very strong		PLdn	WED
14609kHz0640z	11/07[456 000 05195 00001 00000 10140] Very strong		PLdn	WED
11409kHz0600z	14/07[456 000 05195 00001 00000 10140] Very strong		PLdn	SAT
13509kHz0620z	14/07[456 000 05195 00001 00000 10140] Very strong		PLdn	SAT
14609kHz0640z	14/07[456 000 05195 00001 00000 10140] Very strong		PLdn	SAT
XPA2				
14538kHz2100z	08/07[00804 00049 86423 31775] Very strong	(2m48s)	PLdn	SUN
13538kHz2120z	08/07[00804 00049 86423 31775] Very strong	(2m48s)	PLdn	SUN
12138kHz2140z	08/07[00804 00049 86423 31775] Very strong	(2m48s)	PLdn	SUN
14538kHz2100z	11/07[00804 00049 86423 31775] Very strong	(2m48s)	PLdn	TUE

All in all a successful monitoring activity; the auto intercepts made at my home on the SW55.

And for those interested in Steam engines, shots from the East Lancashire Railway.

This strong little engine above was seen at the Ribble Steam Railway Museum, excellent workshops there with plenty going on.

The engine on the right was seen at the East Lancashire Railway line and was being used to pull carriages, on which the coach party travelled. >>>>>>

PoSW's Items of Interest in the Media:-

"I'm sailing across to sea to see my Uncle Sam"; a minor hit for London band "Madness" in 1985, and not something which would have been sung by Mr Abu Hamza as he was finally extradited to the USA a few weeks ago to face terrorist related charges. There seemed to be something going on here more than we were being told as every time Mr H was about to be sent across the Great Western Ocean some legal hiccup occurred to ensure that he continued to stay in the UK making full use of the welfare benefits system to which every third-worlder who can get to Heathrow is entitled. Something called the "European Court of Human Rights" finally said it was OK to give him his marching orders. The ECHR, for those who don't know, are a panel of judges from countries with splendid histories of liberty and freedom, countries such as Turkey, Croatia, Albania and Estonia, who are permitted to tell us Brits what we can and can't do in our own country. No one in the Liberal, Labour of Conservative parties, which are really just one party called the LibLabCon Party, thinks that this is a bad thing. I heard the view on several radio phone-in shows that perhaps Mr H might in fact be an MI5 "asset" and he had perhaps been feeding the spooks a steady stream of information on Islamic terrorist groups in the UK, and that the Government had no intention of sending him to America but couldn't say so publicly. Well, he is over there now; it was reported that he was flown out from the American airbase at Mildenhall in Suffolk, so he was probably bussed up the M11 motorway which runs a couple of miles to the west of my QTH. If I had known he was passing through I would have stood on one of the bridges and waved him a farewell as his entourage drove by.

One individual the British government had no qualms in extraditing to the USA got a brief write-up in the *I* newspaper of 15 -September. "Extradited Kent pensioner faces November trial" is the headline over a short piece by Wesley Johnson and says, "A retired British businessman who was controversially extradited to the United States on arms dealing charges will go on trial in November, his family has said.
Christopher Tappin faces up to 35 years in jail if convicted in his trial in El Paso, Texas starting on 5 November. The 65 year old former president of the Kent Golf Union denies trying to sell batteries for surface-to-air missiles to Iran.
Mr Tappin's wife Elaine said: 'We hope to bring an end to this ordeal for us all. Despite much welcomed support from friends and strangers alike, the emotional, financial and psychological impact of extradition on the family is hard to overstate ' The case has fuelled a row over the fairness of the UK and US extradition treaty. Attorney General Dominic Grieve said problems with the treaty were not 'readily curable' "

I really don't know what is so special about batteries; a quick look in the Maplin Electronics catalogue shows they can sell you just about any kind of battery. And anyway, Iran seems to be making progress without Mr Tappin's merchandise; the *Metro* newspaper of 26-September under the headline, "Anti-ship missile test in show of strength" said, "Four missiles designed to hit warships were fired during a drill near the strategic Strait of Hormuz, Iran's military said. The test follows warnings over any attack against its nuclear programme".
And in the last days of October the news is that Mr Tappin has decided to plead "guilty as charged, your honour" in the hope of receiving no more than a couple of years at the United States' people's expense.

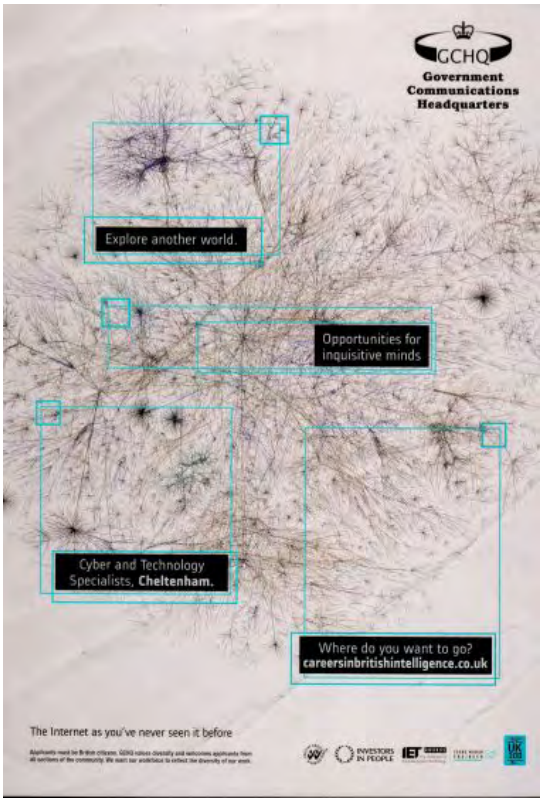
Conservative - Liberal Democrat coalition government steal New Labour's idea; the Labour government of not so long ago was noted for their authoritarian streak and a general disregard of civil liberties. We all thought things had taken a turn for the better when Conservative Home Secretary May scrapped New Labour's smart – chip identity card scheme saying it was "Un – British". However, one of the previous administration's Big Brother schemes seems to be back on the agenda, namely the suggestion that Britain's car drivers should be charged according to the number of miles they drive, to be determined by a "black box" tracking device linked to the European Union's new "Galileo" global positioning satellite system. This would also, of course, enable any vehicle to be tracked and its location determined at any time. The scheme was recently proposed again by the coalition's transport minister Norman Baker.
A letter in the *Metro* newspaper of 27-September summed up the situation:- "What Mr Baker omitted to say is this is not his own idea but one the EU wants all member states to adopt. In a Big Brother operation it plans to use black boxes in our vehicles so all our movements will be monitored by the highly expensive EU Galileo satellite system. Far from cutting costs, it will cost us all considerably more by increasing bureaucracy".

Television news:- I haven't bothered much with TV through the summer months, most of the programming is truly awful and aimed at that all important free-spending late teens to mid thirties female audience. However, the arrival in the post of a reminder that my annual TV licence was due for renewal, a payment of £145.50, prompted me to power up the old Toshiba to see if there was anything worth watching. Probably the two best channels on the "Free View" digital system for those interested in world news and current affairs are Al Jazeera English And R T - Russia Today. The first of these appears to have extended their operating hours, at one time it started up at 6 PM but is now on earlier. As for R T , two minor disappointments here; first, having once been free of commercial they now carry advertisements like all the regular commercial channels, for cars, car insurance, British Gas, banks - whatever.
But, more worrying, my favourite RT presenter appears to have moved on to pastures new; I refer to the extremely attractive lady Alice Hibbert who frequently brightened up the grimmest of news stories. I do declare she is absolutely gorgeous! Beauty and brains there, you don't often find this combination of qualities in a lady! A bit of research suggests that the lovely Alice is now working for the BBC. I must check this out!

000 PoSW

Tnx Peter

Gizza Job [if you're a graduate]



GCHQ for Graduates [they'll miss the other talent]!

Info for the graduate should they care to apply for a job in the three intelligence agencies MI5, GCHQ and MI6

Every One Uses IT Including Terrorists

When I read this advert I immediately thought of Inspire Mag, the glossy 'organ' of al Qaida. It's well put together, eye catching and from my point of view, an interesting read because you get an insight into the mindset of those who follow the al Qaida or associated groups rationale.

It's a PDF file. Whether it is used to convey messages using steganographic methods I do not know, but reading that advert you'd think someone would.

In the recent documentary about the liquid bomb plot in 2006 we see surveillance officers watch one of the accused send a message in an internet café. She quickly takes over the computer and downloads the work the terror suspect has been up to [in fact transfering flying schedules] into a USB stick.

It looks here as though MI5 are taking on skilled personnel with a decent wage being stated.

One thing – keep it shut!!! Sssh.

Couple in Germany charged with spying on NATO for Russia *[XPAb suspected as being comms link]*
Published: 28 September, 2012, 22:56
http://rt.com/news/prime-time/spy-russia-germany-nato-257/

It seems the Cold War never ended. In yet another spy revelation like others embroiling Russia in recent years a man and a woman have been charged with espionage. This time they were discovered in Germany.

It all reportedly goes back to 1988 when the Soviet Union, the Berlin Wall and the KGB were still standing. Two agents, we know them only by their codenames 'Andreas A.' and 'Heidrun A.', arrived in South West Germany. They had come from South America but carried fake Austrian passports. He purportedly started work as an engineer and they settled into a seemingly boring, bourgeois life near Stuttgart.

However when a special unit of the German police entered the house in October 2011 they caught Heidrun A. red handed. She was sat at her radio equipment communicating with Moscow. She was so shocked she fell off her chair dragging wires out of the wall with her. Andreas A was arrested elsewhere in Germany.

They had not been living a bourgeois life at all but had been busy stealing information on NATO and EU strategy and passing it to the SVR, the Russian foreign intelligence agency, a successor to the KGB. They had a contact inside the Dutch Foreign Ministry who passed them secret information via a dead letterbox. They were in constant contact with the SVR in Moscow and were being paid 100,000 euros a year to do their spying. They have now been charged with espionage, charges which they deny.

For the SVR and Russia it's another potentially huge embarrassment. The network of spies that's been uncovered is far larger than just Andreas A. and Heidrun A. They sat at the centre of web stretching across Europe and beyond. They played a linking role with other agents. They had informers in the German government supplying them with information on the politics, society and security Germany and the German people. They had their spy inside the Dutch Foreign Ministry. They were also linked to a Russian spy ring in the US broken up in 2010.

There have been other major Russian spying incidents in recent years too. In 2009 Hermann Slimm, an Estonian defense ministry official gave thousands of EU, Estonian and NATO documents to Russia. He is now in jail serving twelve and half years.

There should be concern from Europe and the US. As the head of Belgium's security service summed it up to a European journalist, spying by Russia and China is being carried out at the same intensity and extent as it was in the Cold War.

http://rt.com/news/prime-time/spy-russia-germany-nato-257/

£5,08,000 Bond party leaves Sweden shaken and stirred
Aug 30, 2012, 06.05AM IST
http://timesofindia.indiatimes.com/world/europe/508000-Bond-party-leaves-Sweden-shaken-and-stirred/articleshow/15975832.cms

The Swedish intelligence service's James Bondthemed spy party contained all the ingredients 007 himself would approve of: martinis (shaken, not stirred), casino tables, a gala dinner, and special guests, including the head of the UK's MI5 security agency, Jonathan Evans.

However, it has since emerged that the lavish event cost £508,000 and Sapo, Sweden's intelligence service, is now struggling to explain the expense, especially as the party took place after stringent budget cuts within the organization. "This was a unique and extraordinary time," general Anders Thornberg, the head of Sapo, told Sweden's Dagens Nyheter newspaper in an interview. Referring to the unprecedented terrorist threats and attacks targeting Sweden in the years before the party, he added, "We thought that we needed a special gathering for the whole team."

Embarrassing questions have now been raised about Sapo's spending habits. Critics have pointed out that the intelligence agency was in breach of Sweden's public spending rules because Sapo failed to invite competitive bids for the event. The agency has come under particular scrutiny because its reorganization had been designed to reduce costs to the taxpayer.

Thornberg also conceded Sapo had compounded its misconduct by wrongly demanding VAT refunds worth £96,000 after the party. Sweden's justice minister, Beatrice Ask, is yet to comment. However, the disclosures have prompted the Sapo ex-chief, who organized the party, to apologize.

The event is the latest in a series of scandals involving Swedish government bodies throwing parties funded with taxpayers' money. Earlier this month, Sweden's ministry of enterprise was asked to submit documents about the funding of its 2011 Christmas bash, which the ministry had tried to write off as a "seminar activity" to avoid paying VAT on it.

-The Independent
http://timesofindia.indiatimes.com/world/europe/508000-Bond-party-leaves-Sweden-shaken-and-stirred/articleshow/15975832.cms

Our romance was written in enigma code: When Dan and Iona fell in love, they had no idea they shared a family link .?.?. to an extraordinary act of heroism that saved Britain from the Nazi U-boats 70 years ago
By Dan Davies
PUBLISHED: 22:00, 1 September 2012 | UPDATED: 23:47, 1 September 2012
http://www.dailymail.co.uk/femail/article-2196791/Dan-Iona-Davies-Couples-link-heroic-act-saved-Britain-Nazi-U-boats-70-years-ago.html

Yesterday my fiancee, Iona, and I were married in a pretty village on the northeast coast of Scotland. The pews were filled with family and friends, and it was a moving and a joyous occasion.

Yet our exchange of vows was not the only significant event remembered in that small church in Edzell, near Montrose, on a quiet September afternoon.

For some of those present it was also a reminder of what took place far away on a moonless night in the Eastern Mediterranean almost 70 years ago: an act of heroism that changed the course of the Second World War. And without which there would have been no wedding.

At 5.50am on October 30, 1942, a Sunderland flying boat spotted a German submarine 70 nautical miles north-east of the Nile Delta. Four destroyers were dispatched at top speed from Port Said, where Britain's Mediterranean Fleet was based. Among them was HMS Petard, commanded by Lieutenant Commander Mark Thornton, a fearsome taskmaster whose goals were simple: to seek action with the enemy – and to capture a German U-boat.

It was not just a matter of pride. Technical advances with the German navy's Enigma coding machines in February 1942 had led to a complete blackout for the British code breakers at Bletchley Park in Buckinghamshire. By now, late October, it had been almost ten months since they were last able to decipher U-boat signals, and hundreds of thousands of tons of allied shipping were being lost each month to submarine 'wolf packs'.
Happy legacy: Dan Davies, his new wife Iona and daughter Iris

Brave hearts: Gordon Connell, left, in 1945, and Anthony Fasson, who took his place
HMS Petard was commanded by Lieutenant Commander Mark Thornton, a fearsome taskmaster whose goals were simple: to seek action with the enemy - and to capture a German U-boat

HMS Petard was commanded by Lieutenant Commander Mark Thornton, a fearsome taskmaster whose goals were simple: to seek action with the enemy - and to capture a German U-boat

The addition of an extra 'rotor' to the German coding machines had increased the number of permutations from an already staggering 159 million million million by a factor of 26. While Britain's most brilliant minds were stalled, Hitler edged closer to realising his objective of starving Britain into surrender.

Cracking the uprated four-rotor U-boat Enigma cipher, or Triton, as the Germans called it, had become the Holy Grail at Bletchley. And now, with a U-boat in its sights, the Navy had a chance to help. Petard made contact with the German sub at around noon and began depth-charging, but time and again the U-boat slipped away. As the wind rose, the broken water made any tell-tale signs of a strike – debris and oil slicks – harder to spot.

More than 150 depth charges were launched during the ten-hour pursuit until, at around 10pm, the Petard's crew detected the smell of diesel on the water. They'd scored a hit and the U-boat was blowing its ballast tanks in order to surface.

After a pregnant silence, the sound of white water breaking off the Petard's port side alerted Thornton to the sub's presence on the surface. He called for the searchlight and there, illuminated in its beam some 80 yards away, was U-559 wallowing low in the water. A white painted donkey – its distinctive motif – was clearly visible on the conning tower from which German crewman now slithered on to the outer hull and into the waves.

Thornton gave the order to open fire, and a brief burst from the Petard's smaller guns ripped holes in the tower and the U-boat's shell. But when it was clear that its crew were abandoning ship the ceasefire bells were sounded. At this pivotal point in the war, capturing a U-boat was a far greater prize than sinking one.

Sub Lieutenant Gordon Connell, the Petard's 25-year-old gunnery control officer, was ordered to lead a party on to the sub. But his brain felt numb after the brief burst of fire and his legs weakened as he clambered down on to the Petard's slippery iron deck. Calling for a rope ladder and netting to be lowered, he yelled back to Thornton that the gap between the Petard and U-559 was too wide: he was unable to jump on to the hull of the sub. From the bridge, Thornton shouted that Connell was to dive in from the upper deck and swim.
The U559 was wallowing low in the water and its white painted donkey - its distinctive motif (pictured) - was clearly visible on the conning tower

The U559 was wallowing low in the water and its white painted donkey - its distinctive motif (pictured) - was clearly visible on the conning tower

As Connell hesitated, looking down at the faces of struggling German crewmen picked out in the water by the searchlight, First Lieutenant Anthony Fasson emerged from the darkness. He was about to save Connell's life and change the course of the war.

Fasson was Petard's second-in-command, a handsome 29-year-old from the Scottish Borders, described by colleagues as 'an outstanding leader of men'. He ordered Connell to move aside, and took his place. Fasson and another crew member, Able Seaman Colin Grazier, peeled off their outer clothes and dived in.

Boarding the now abandoned U-559, they worked frantically by torchlight. Water was flooding in through the seacocks opened by the Germans in an attempt to sink it.

Fasson used the butt of a machine-gun to smash open cabinets in the captain's quarters, passing confidential books and documents to Grazier, who climbed the ladder and handed them to 16-year-old Tommy Brown. The canteen assistant and youngest member of Petard's crew had ignored the warnings of his superiors and joined Fasson and Grazier on the sub.

Connell, meanwhile, had launched a small sea boat and, with a boarding party, manoeuvred it through groups of shouting German submariners to the U-boat, where they saw Brown clinging to the conning tower's guardrail, one hand clutching documents and codebooks.

With waves breaking over the submarine hull, the documents were transferred to the sea boat where they were put in a waterproof pouch. German codebooks were written in soluble ink so they could be thrown overboard in the event of enemy capture.

When Brown shouted he was going down below for a third time, Connell warned that the U-boat was sinking dangerously low in the water. Giving the order that Fasson and Grazier were to be brought up immediately, Connell then jumped into the sea to clamber on to the tower.
Within weeks, U-boat signals were being intercepted and interpreted. When Nazi submarine losses began to sharply escalate, Admiral Doenitz was forced to withdraw what was left of his U-boat fleet from the Atlantic

Within weeks, U-boat signals were being intercepted and interpreted. When Nazi submarine losses began to sharply escalate, Admiral Doenitz was forced to withdraw what was left of his U-boat fleet from the Atlantic

Inside the U-boat, Fasson was adamant that he needed more time. He and Grazier were still at work when the vessel lurched fatally and the hatch to the conning tower dipped below the waves.

On the surface, confusion reigned as Connell and other members of the boarding party were pulled back into the sea boat by their crewmates, along with Tommy Brown, who had jumped off the conning tower in the nick of time. But shouts for their two missing comrades went unanswered.

Forty members of U-559's 50 crew were saved from the waters.

Captain Thornton's later investigation into how Brown had come to be on board the sinking U-boat revealed the fact that the youngster had disguised his age when signing up for the Royal Navy. He had been just 15 when he joined the Petard. He was discharged from the ship.

Once back in dock, the documents captured by Fasson, Grazier and Brown were passed to British intelligence officers who had flown to Haifa, in what is now Israel. The haul of Enigma documents from U-559 was arguably the most significant of the war, allowing the British scientists, mathematical savants and chess masters at Bletchley to crack the four-rotor Triton code.

Within weeks, U-boat signals were being intercepted and interpreted. More than 500,000 tons of shipping were saved in the first months of 1943 alone. The tide had been turned and when Nazi submarine losses began to sharply escalate, Admiral Doenitz was forced to withdraw what was left of his U-boat fleet from the Atlantic. Such was the secrecy that it wasn't until the mid-Seventies that Doenitz discovered that Triton had been penetrated.

Fasson and Grazier were each awarded a posthumous George Cross in September 1943: a civilian rather than military award because they had not been under enemy fire. Fasson's parents had been told their son had drowned in an 'unsuccessful' attempt to board a U-boat. Brown, who was to die a year later in a house fire in South Shields, was awarded the George Medal.

Robert Harris, whose book Enigma was made into a Hollywood film starring Dougray Scott and Kate Winslet, says that without Fasson, Grazier and Brown, 'there might never have been a D-Day in June 1944'.

It was over dinner one evening in 2008 that Iona and I began discussing our families. I recounted how my grandfather, Gordon Connell, had been inspired to write his first book by what he described as 'an accidental encounter' with a war memorial in the Scottish Borders.

During a family caravan holiday in 1973, he'd wandered off alone looking for somewhere to cash a cheque and perhaps find a drink. Under his arm he carried a battered pair of Zeiss binoculars with a swastika engraved on them; a trophy taken from U-559 moments before it sank, taking with it his two comrades.

Looking up at the memorial, he came to an extraordinary realisation: 'I find it difficult to describe my emotions,' he later wrote. 'The Lieutenant Anthony Blair Fasson, George Cross, Royal Navy, whose name appeared with many others, was the same Tony who had saved my life over 30 years before.'

Connell's book, Fighting Destroyer, was published in 1976, long before it emerged how truly remarkable the Petard's contribution had been. He died in 1992.

When I finished telling the story, which has long been a source of pride for my family, Iona had her hand over her mouth. I asked her what was wrong. And it was then that she explained that the story of October 30, 1942, is as famous in her family as it was in mine.

First Lieutenant Anthony Fasson, she said, was her great uncle, the beloved older brother of her grandmother, Sheena.
Bletchley Park House in Buckinghamshire, where British scientists, mathematical savants and chess masters cracked the four-rotor Triton code

Iona now says it was the moment she knew we were destined to be married. It felt like fate – it still does – and must have been similar to what my grandfather experienced when he stood before that small granite obelisk near the ruins of Jedburgh Abbey.

Sheena, who is now 95 and lives just a few hundred yards from where we were married, was left heartbroken by the death of her brother. It turned out she had already read my grandfather's book and learned of what Tony had done for him.

Connell would go on to survive the war and father five children, one of whom is my mother. Twenty-eight years to the day after that fateful encounter with U-559, the second of his ten grandchildren was born. That grandchild was me.

Yesterday, when I got to my feet to speak, I was holding my own baby daughter, Iris, a living legacy of Fasson's act of selfless courage all those years ago. I remembered my grandfather and felt a pang of regret that I never spoke with him at any length about his experiences as a young man.

With Iona by my side, and Sheena close by, I remembered, too, Anthony Fasson, the man who made the ultimate sacrifice to save not just Connell's life, but those of so many others.

Fasson, Grazier and Brown are commemorated with a plaque in Jedburgh, a striking sculpture in Tamworth, Grazier's home town, and a stained glass window in a church in North Shields. Books have been written about their heroism.

And yesterday, just a few yards from our wedding marquee, in the house belonging to my in-laws, there was another memorial. In a small wall-mounted display case sat a replica of Anthony Fasson's George Cross. My grandfather would have been so very proud.

http://www.dailymail.co.uk/femail/article-2196791/Dan-Iona-Davies-Couples-link-heroic-act-saved-Britain-Nazi-U-boats-70-years-ago.html

Spy base GCHQ settles racial harassment claim
11 September 2012

http://www.standard.co.uk/news/london/spy-base-gchq-settles-racial-harassment-claim-8125242.html

An Asian civil servant who was suing the Government's secretive spy base GCHQ for racial harassment has settled his claim at the eleventh hour.

Alfred Bacchus was due at a London employment tribunal today but the case was cancelled after it was settled at 11pm last night, officials said.

The 42-year-old's lawyer's office also confirmed the parties had settled.

Mr Bacchus was reportedly seeking £150,000 amid claims he was bullied by bosses while a senior press officer at the Government Communications Headquarters, whose work involves monitoring telephone calls and electronic communications from terrorism suspects.

Mr Bacchus, of Maida Vale, west London, resigned from his post in August 2011 and began his claim for race discrimination and constructive dismissal.

In papers lodged with the employment tribunal, the claimant complained of harassment by his white bosses and claimed he was singled out in July 2010 when he was asked how he felt about a leaked report on racism at GCHQ.

Mr Bacchus was soon after treated at hospital for anxiety and a racing heart rate, his lawyer Joe Sykes previously said, adding that Mr Bacchus was made to return to work for the same managers at the listening post in Cheltenham.

No details of the settlement were immediately available and a GCHQ spokeswoman declined to comment.

GCHQ had previously lost an application to exclude the media from the tribunal, which was listed for nine days, on national security grounds

http://www.standard.co.uk/news/london/spy-base-gchq-settles-racial-harassment-claim-8125242.html

This sad news from QRZ.com. If you are not aware of the Forum it is worth a visit:

KG4WSS, Killed in Consulate Attack
http://forums.qrz.com/showthread.php?361941-KG4WSS-Killed-in-Consulate-Attack

09/18/2012 Sean P. Smith, KG4WSS, of Falls Church, Virginia, was killed when the US Consulate in Benghazi, Libya, was attacked on September 11. He was 34. Smith was one of four Americans, including Chris Stevens -- the US Ambassador to Libya -- who was killed in the attack.

Smith -- a native of San Diego -- enlisted in the Air Force in 1995 at age 17. He served six years as a ground radio maintenance specialist, including a deployment to Oman, before leaving the service in 2002 as a staff sergeant. He was awarded the Air Force Commendation Medal. Smith, who had worked at the State Department for 10 years, was in Libya on a temporary assignment when he was killed; Before his temporary assignment to Benghazi, Smith served for the State Department in Brussels, Baghdad, Pretoria, Montreal and The Hague.

“Sean was a friend of mine, and while he was not a very active operator he was an extremely skilled electronic technician,” James Kirkham, W4HFK, told the ARRL. “He was instrumental in getting me back into the hobby after a 10 year hiatus.”

Smith was well known in the online gaming community as an avid participant of the space fantasy game EVE Online, where he was known as “Vile Rat,” one of the leaders of a gamers’ alliance and renowned for his diplomatic skill in the multi-player space warfare simulation.

“If you play this stupid game, you may not realize it, but you play in a galaxy created in large part by Vile Rat’s talent as a diplomat,” said Smith’s friend Alex Gianturco, in a tribute posted on his website. No one focused as relentlessly on using diplomacy as a strategic tool as VR.” Gianturco wrote that Smith had been under fire before, when he was posted to Baghdad. When that occurred, he usually broke off his messaging. “We’d freak out and he’d come back okay after a bit,” Gianturco wrote. “But Tuesday night, after reporting ‘GUNFIRE,’ he disconnected and never returned.” A few hours earlier that evening, Smith posted the following: “assuming we don’t die tonight. We saw one of our ‘police’ that guard the compound taking pictures.”

Smith is survived by his wife, Heather, and two young children, Samantha and Nathan. “They will grow up being proud of the service their father gave to our country, service that took him from Pretoria to Baghdad, and finally to Benghazi,” Secretary of State Hillary Rodham Clinton said in a statement. – Thanks to The Washington Post, CNN, the US Air Force, Bill Cross, W3TN, and James Kirkham, W4HFK, for the information.
http://forums.qrz.com/showthread.php?361941-KG4WSS-Killed-in-Consulate-Attack

Spy rock explodes near secret Iranian nuclear compound - report
Published: 23 September, 2012, 14:09
Reuters / Stringer
http://rt.com/news/iran-spy-rock-nuclear-777/

Iranian troops patrolling the perimeter of a secret uranium enrichment site have reportedly found a monitoring device disguised as a rock. The spy gadget exploded when disturbed, probably on a self-destruct trigger.

-The incident happened last month, although no link to espionage operations was known before The Sunday Times newspaper broke the news. At the time Iranian Revolutionary Guards were checking terminals connecting communication links at Fordo, an underground site near Qom in northern Iran, the British newspaper reported Sunday citing intelligence sources.

Iranian experts who examined the scene after the explosion believe that the spy device was capable in intercepting data from computers at the plant.

Tehran did not report discovering the device. But last week Iranian Vice-President Fereydoun Abbasi, who heads the national atomic energy agency, said the explosion on August 17 damaged power lines at Fordo.

Inspectors from the International Atomic Energy Agency (IAEA), who visited Fordo the day after the explosion, did not mention any disruption in their report.

The newspaper's sources did not indicate which country's intelligence service planted the rock at the Iranian nuclear facility. Israeli, British and American agents are reportedly actively operating in the country, monitoring its military and nuclear programs. Some Western countries say Iran is trying to build a nuclear weapon under the guise of its civilian nuclear energy projects, an allegation Tehran firmly denies.

Disguising spy equipment as elements of landscape is far from unusual. In 2006 a major scandal erupted in Russia, after a controversial documentary said British secret services used a transmitter disguised as a rock to communicate with some non-governmental organizations working in Moscow.

This year British officials admitted that they did use such a device disguised as a rock for monitoring and secret communication with intelligence informants.

http://rt.com/news/iran-spy-rock-nuclear-777/ Thanks Brixmis

Apprentice 'James Bonds' to be taken on by spy agencies

Trainee spies are to be hired by Britain's security and intelligence agencies for the first time in a bid to attract the next generation of espionage experts.
By Tom Whitehead, Security Editor
10:59AM BST 18 Oct 2012
http://www.telegraph.co.uk/news/uknews/law-and-order/9617091/Apprentice-James-Bonds-to-be-taken-on-by-spy-agencies.html#

An apprenticeship scheme has been launched for MI5, MI6 and GCHQ which will offer school leavers a two year placement with the three secret agencies.

They hope to encourage teenagers to join the services at an early age rather than going to university, which has traditionally been the main recruiting ground.

It is also aimed at dispelling the myth that only those from the elite classes joined the secret service.

There have been concerns that the agencies, especially GCHQ, have struggled to attract and retain the most skilled IT specialists because they can earn far greater sums in the private sector.

It is part of a wider drive to take advantage of expertise from outside the services, which has also included invitations to private companies to come up with innovative ideas to combat terrorism and cyber crime.
Related Articles

A spokesman for GCHQ said: "Apprentices with Intelligence dispels the myth that apprenticeships are for low paid or manual work and that a career in the Intelligence Services is the preserve of privately-educated men.

"Our apprenticeships are a genuine alternative to university in a leading-edge technology environment that will open up multiple career paths. Candidates won't just be working with the very latest technology, they will be involved in creating it."

Under the programme, places will initially be made available for between 70 and 100 apprentices.

To qualify they will have to have three A-levels or an equivalent qualification.

Over two years, candidates will learn about and work with some of the most advanced technology and work on tackling terrorism, cyber threats, counter espionage and organised crime.

On completion successful candidates will receive a Foundation Degree and a Level 4 Diploma in IT Professional Competence.

The agencies will now target students and parents across a range of social media, with candidates being asked to apply before the end of November.

Andrew Wilkinson, chief executive of TMP Worldwide, a recruitment agency that has helped create the programme, said: "Most school leavers do not know what they want to do, so the default option is university.

"The reality is they really want to build workplace skills quickly or avoid student debt, which makes Apprentices with Intelligence a not-to-be missed opportunity. "Successful candidates will learn about how to protect the nation's security and that's something you won't find at university."

http://www.telegraph.co.uk/news/uknews/law-and-order/9617091/Apprentice-James-Bonds-to-be-taken-on-by-spy-agencies.html#

M89 or the Communication Network of the Second Artillery Corps/Force

Loggings for what we now know as M89 first appeared in early 2000 from monitors in Russia and Japan. In November 2003, the M89 designator was allocated by E2K. My first logging of M89 was in June, 2007 through the Hong Kong GlobalTuners and I was hooked.

My first monitoring priority was to obtain as much information as I could about M89. In a previous article and update on M89, I mentioned how I came across the website of the International Telecommunications Union (ITU) and a set of files related to monitoring that the ITU undertakes on the HF bands. Due to the large number of loggings of M89 stations by the ITU's monitoring station located in Japan, it has been confirmed by Direction Finding (DF) that all of the M89 stations being heard are located in China. ITU DF has provided us with a very good approximation of where the M89 stations are located as follows:

Callsign	Bearing (Fm Tokyo)	Fix (Average)	Nr of Bearings	Nr of Fixes
3A7D	300	43 26'N 90 14'E	14	12
Q7NW	290	40 10'N 116 10'E	12	12
CZT2	280	36 18'N 104 25'E	3	1
NYZ	254	24 18'N 110 20'E	4	1
QV5B	250	29 41'N 119 50'E	25	19
GNXG	280	35 12'N 108 17'E	6	5
DRV8	300	41 39'N 123 32'E	6	6

As a result of the information obtained above, I created a Google Earth map depicting the location of M89 stations as fixed by the ITU Monitoring station in Tokyo. Since then, I've updated this map to reflect only the current M89 stations being monitored and have combined all of the fixes for each station and averaged their location.

While doing initial research on the Internet, I came across a Chinese forum related to amateur radio, which contained some references to M89. According to one of the amateurs on this forum, these stations belong to the Chinese Army. He had once worked on their communication staff and had been responsible for determining day and night time frequencies according to seasons. He also mentioned that callsigns were changed regularly.

Another forum member referred to these stations as “Force-Frequency-Alarm-Units” and states that their purpose is to provide notification in the event of a nuclear war or raid. Apparently, this communication system was established in 1970 - 42 years ago.

With the above information in mind, I decided to do further research on the Internet to see what I could find regarding Chinese military organizations/units involved in a nuclear and early warning role. Over time, I was able to find some very interesting information which has led me to believe that M89 is probably the communication network of the Second Artillery Corps (SAC). Before we get into my findings, let’s have a quick look at the SAC, specifically how it’s organized and more importantly, the locations of major units.

Second Artillery Corps (SAC)

China's strategic nuclear force, referred to as the Second Artillery Corps, was established in Beijing on 1 July 1966. The Second Artillery Corps is under the operational control of the general staff, but is directly controlled by the Central Military Commission (CMC), and has been an independent arm of the Chinese armed forces since 1974. Figure 1 is a diagram of the command structure of the People’s Liberation Army (PLA). As can be seen, Second Artillery is located at the highest level of the PLA Command Structure.

The Second Artillery Corps is believed to be organized into a headquarters in Qinghe near Beijing. It consists of: an early warning division, a **communication regiment**, a security regiment, a technical support regiment, and six ballistic missile Divisions.

Second Artillery Corps Headquarters building at Qingh China

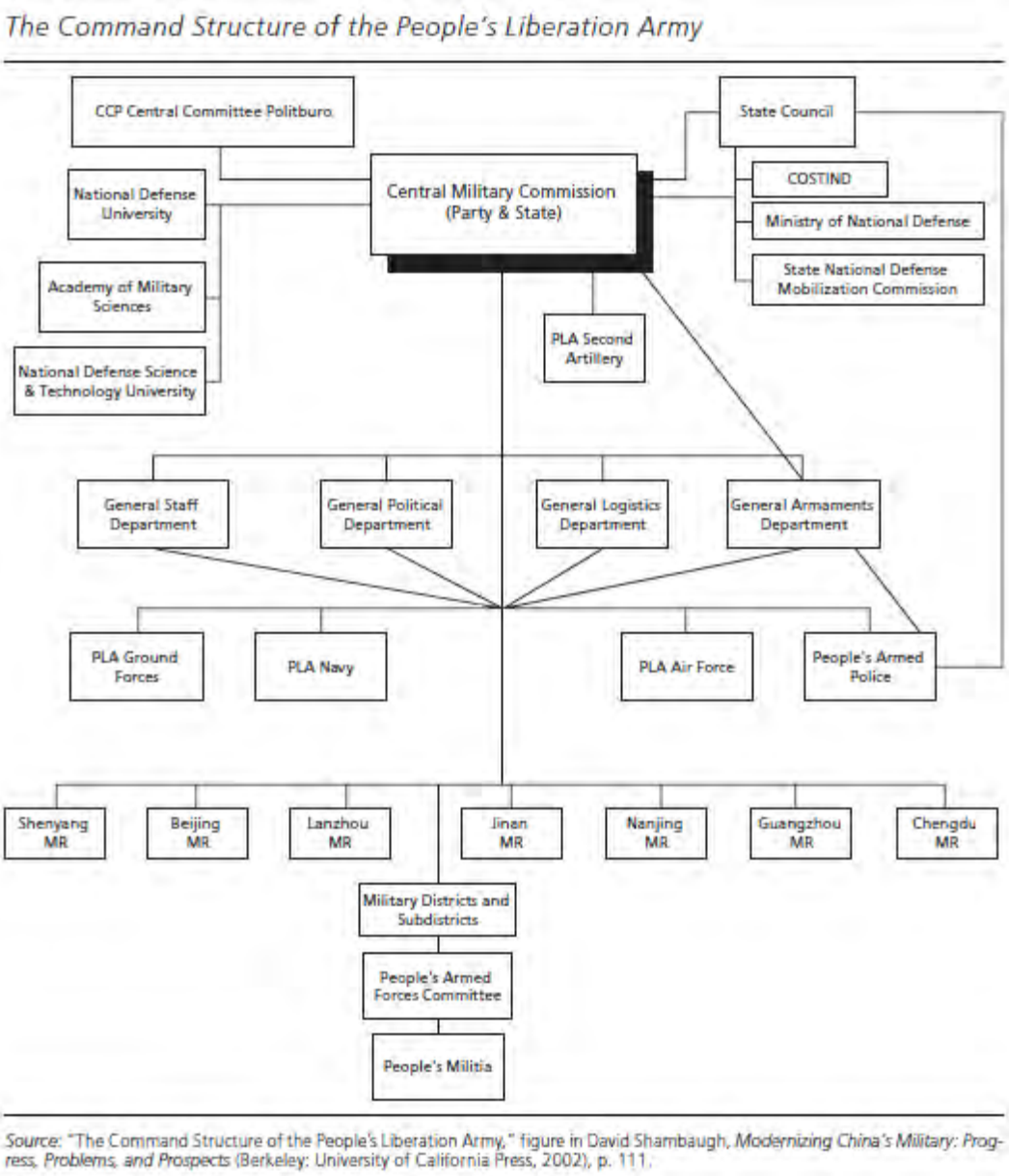
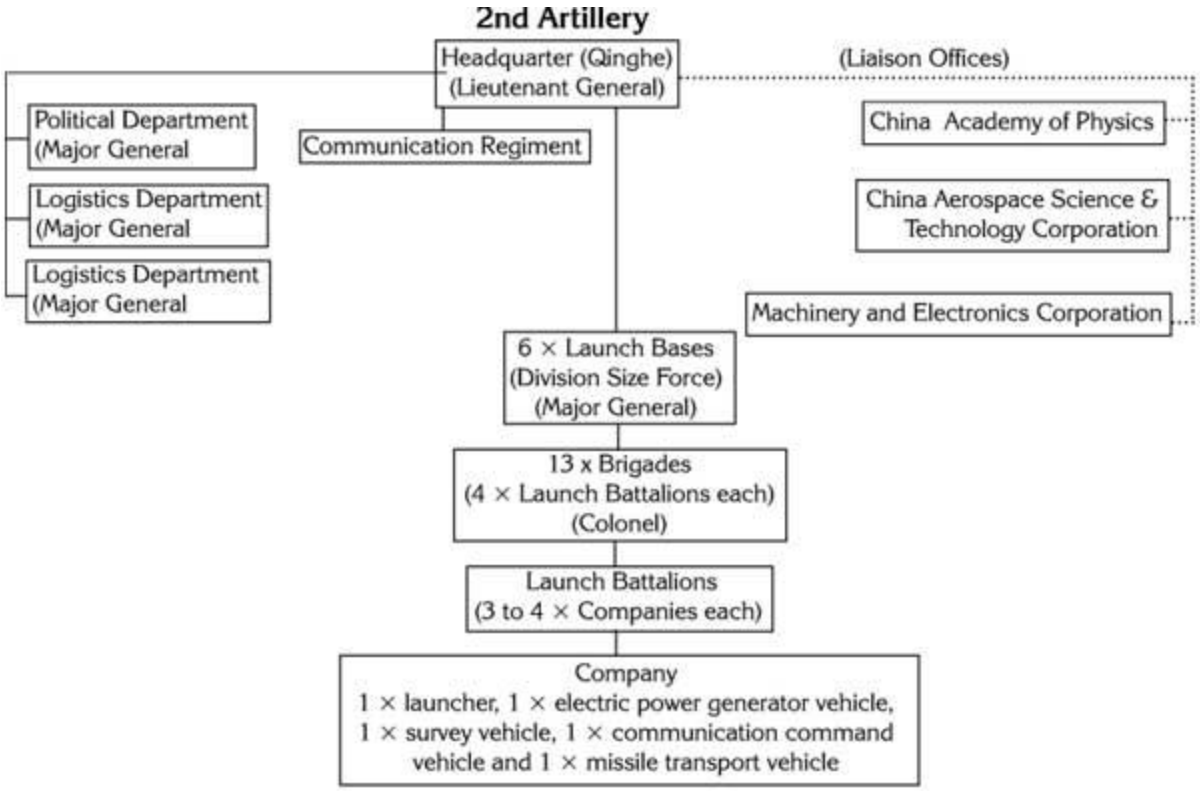


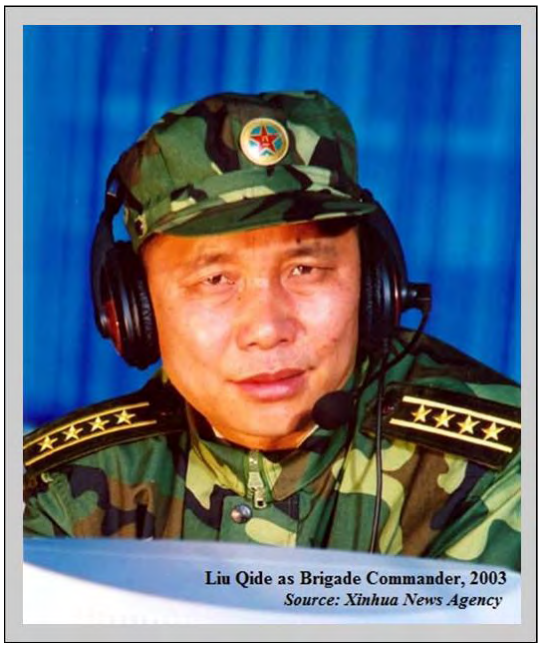
Figure 1 – PLA Command Structure

The **signal unit of the Second Artillery Corps operates communications systems to provide communications support capabilities for launch operations**. The headquarters complex maintains contact with subordinate units through its own communications regiment. **The 2nd Artillery Corps has its own communication regiment down to the smallest unit.**

All SAC units are subject to strict command and control from the CMC. Orders are passed down to operational units via a four-level chain of command: CMC, missile bases/Divisions, missile brigades, and launch battalions. Second Artillery command orders are centralized, **encoded** and protected, and require human authentication. The diagram on the next page depicts the command structure of the 2nd Artillery. Note the 6 Launch Bases/Divisions as well as the **Communication Regiment**.



SAC comprises approximately 100,000 personnel and six ballistic missile Bases/Divisions which are independently deployed in different military regions throughout the country as depicted in figure 2 below. The six operational missile bases/divisions are numbered from 51st to 56th. The 22nd Base, located in Baoji, Shaanxi Province is officially known as the "Training and Experimental Base". Western intelligence suggests that this base may also serve as a warhead storage facility.



MGen Liu Qide is the commander of Base 55. Liu Qide has roots in the Second Artillery's ICBM community. He was assigned to 55 Base's 803 Brigade in Jingzhou as a junior officer, and remained in the unit for more than a decade. Liu served as 803 Brigade Commander from 1997, and was subsequently assigned as director of the 55 Base Equipment Department in 2004. He transferred to the Second Artillery's Communications **Department in July 2007, where he managed the force's nuclear command, control, and communication system.** He returned to Huaihua in early or mid-2010 to serve as 55 Base chief of staff until his promotion to commander.

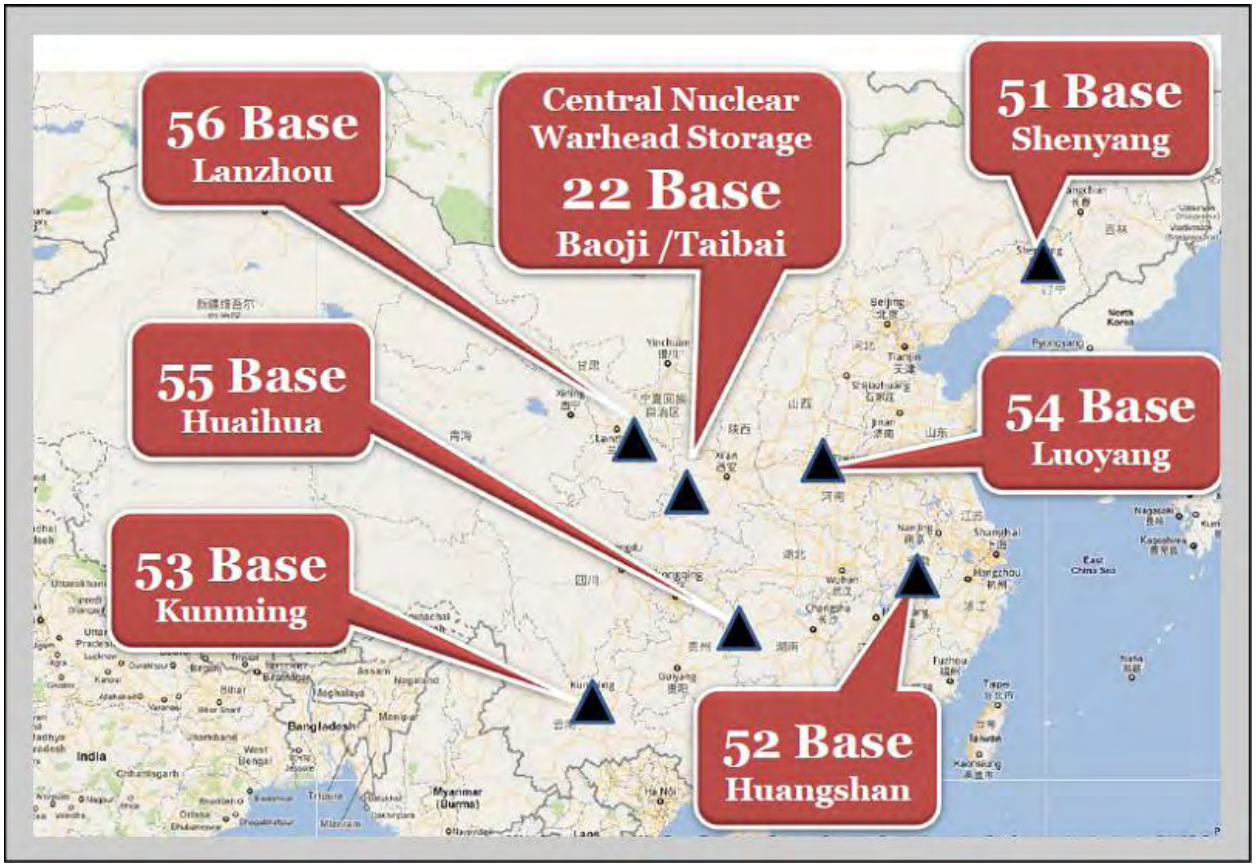


Figure 2 – SAC Bases/Divisions

Figure 3 below, depicts the typical structure at each base/division, in this case Base 55. Note the **Communication Regiment** element (bottom right).

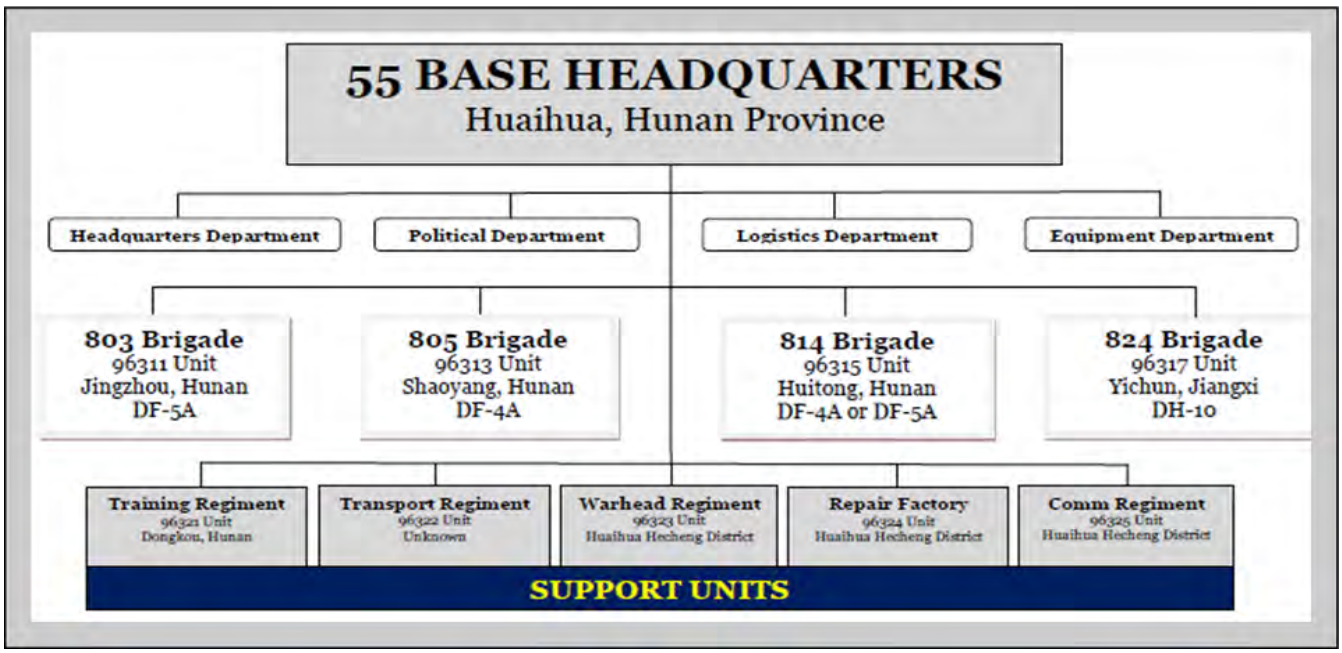


Figure 3 – Typical organization of a SAC Base

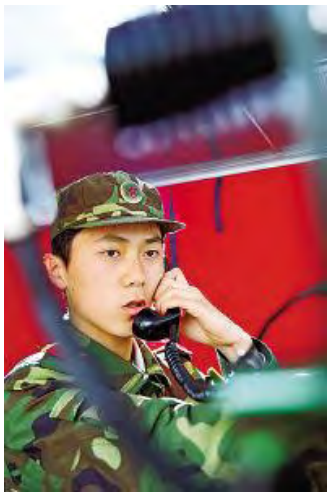
A missile base/division is the largest operational unit in the SAC, each assigned with a specific target area. For example, Base 51 is responsible for covering targets in Northeast Asia; Base 52 is responsible for covering Taiwan; Base 53 is responsible for covering Southeast Asia; Base 56 is responsible for covering targets in South and Central Asia and Russia; Base 54 and Base 55 are responsible for covering targets in North America and Western Europe.

Each missile base/division is composed of a headquarters, a number of missile brigades, as well as support elements, which normally include a **signal regiment**, an electronic warfare regiment, an engineer battalion, a reconnaissance group, a survey/mapping group, a computer centre, a meteorological centre, maintenance workshops, a guard company, and missile and warhead storage.

The missile brigade is the principal operational unit that operates, protects, maintains, and supports the missile troops. A missile brigade normally consists of a brigade headquarters, 4~6 launch battalions, a **signal battalion**, a telemetry battalion, a launch site battalion, a technical battalion, a maintenance battalion, and a number of logistics and support units. Each brigade likely includes a mobile command post, a central depot, an assigned set of pre-surveyed launch sites, as well as a set of reserve launch sites. In peacetime, missile brigades reports to their base headquarters. In time of war, conventional missile brigades are likely subordinate to the war front command.

The launch battalion is the basic launch unit, responsible for the daily maintenance and operations of the missile systems. A launch battalion is only equipped with a single type of missile. Each launch battalion possibly consists of a fixed or mobile launch control centre, with a number of launch companies. There are microwave and **radio data, and voice communications** links, between the launch battalion and the missile brigade and base command centres.

A nuclear missile launch company may be in charge of a single missile, either silo-based or mounted, on a transporter-erector-launcher (TEL) vehicle. A conventional missile launch company may deploy 5~6 TEL vehicles and 5~6 missile transport vehicles. A mobile launch company may also include an electric-power generation vehicle, a surveying vehicle, and a **communications command vehicle**. The next page contains the Battle Order of the SAC as of 2009.



PLA Second Artillery Corps Order of Battle (May 2009)

Unit	Cover Designator	Province	City/Region	Equipment
51 Base	**96101 Unit**	**Liaoning**	**Shenyang**	
806 Brigade	96111 Unit	Shaanxi	Weinan (Hancheng)	DF-31A (CSS-9)
810 Brigade	96113 Unit	Liaoning	Dalian (Jinzhou)	DF-3A (CSS-2)
816 Brigade	96115 Unit	Jilin	Tonghua	DF-15 (CSS-6)
822 Brigade	96117 Unit	Shandong	Laiwu	DF-21C (CSS-5)
?	96623 Unit	Shandong	Laiwu	Support
52 Base	**96151 Unit**	**Anhui**	**Qimen (Huangshan)**	
807 Brigade	96161 Unit	Anhui	Chizhou	DF-21 (CSS-5)
811 Brigade	96163 Unit	Anhui	Huangshan (Qimen)	DF-21 (CSS-5)
815 Brigade	96165 Unit	Jiangxi	Jingdezhen (Leping)	DF-15B (CSS-6)
817 Brigade	96167 Unit	Fujian	Yongan	DF-15 (CSS-6)
818 Brigade	96169 Unit	Guangdong	Meizhou	DF-11A (CSS-6)
819 Brigade	96162 Unit	Jiangxi	Ganzhou	DF-15 (CSS-6)
820 Brigade	96164 Unit	Zhejiang	Jinhua	DF-15 (CSS-6)
?	96172 Unit	Anhui	Huangshan (Qimen)	Support
Signal Regiment	96173 Unit	Jiangxi	Jingdezhen	**Signal**
Factory	96174 Unit	Anhui	Huangshan (Xiuning)	Maintenance
53 Base	**96201 Unit**	**Yunnan**	**Kunming**	
802 Brigade	96211 Unit	Yunnan	Jianshui	DF-21 (CSS-5)
808 Brigade	96213 Unit	Yunnan	Chuxiong	DF-21 (CSS-5)
821 Brigade	96215 Unit	Guangxi	Liuzhou	DH-10
?	96217 Unit	Guizhou	Qingzhen	?
?	96219 Unit	Yunnan	Kunming	?
54 Base	**96251 Unit**	**Henan**	**Luoyang**	
801 Brigade	96261 Unit	Henan	Lingbao	DF-5A (CSS-4)
804 Brigade	96263 Unit	Henan	Luanchuan	DF-5A (CSS-4)
813 Brigade	96265 Unit	Henan	Nanyang	DF-31A (CSS-9)
55 Base	**96301 Unit**	**Hunan**	**Huaihua**	
803 Brigade	96311 Unit	Hunan	Huaihua (Jingzhou)	DF-5A (CSS-4)
805 Brigade	96313 Unit	Hunan	Huaihua (Tongdao)	DF-4 (CSS-3)
814 Brigade	96315 Unit	Hunan	Huaihua (Huitong)	DF-4 (CSS-3)
824 Brigade	96317 Unit	Hunan	Shaoyang (Dongkou)	?
?	96321 Unit	Hunan	Shaoyang (Dongkou)	Support
Signal Regiment	96325 Unit	Hunan	Huaihua (Hecheng)	**Signal**
56 Base	**96351 Unit**	**Qinghai**	**Xining**	
809 Brigade	96361 Unit	Qinghai	Datong	DF-21 (CSS-5)
812 Brigade	96363 Unit	Gansu	Tianshui	DF-31A (CSS-9)
823 Brigade	96365 Unit	Xinjiang	Korla	DF-21 (CSS-5)
Training Unit	96367 Unit	Qinghai	Delingha	-
Training Unit	96367 Unit	Xinjiang	Ruowu	-
22 Base	**96401 Unit**	**Shaanxi**	**Baoji**	

Second Artillery Readiness Levels
According to *A Guidebook to the Study of Campaign Theory, "*the Second Artillery must continually focus on discovering the enemy's attempts at attack, its times of attack, and must always conduct defensive exercises and preparations." PLA doctrine requires that the Second Artillery "operate and coordinate with air, ground, and other defensive organizations under the direction of the CMC to implement a nuclear counterattack campaign."

The Second Artillery has a system of three classes of readiness. Under normal conditions, the firing units are at "Third Class" status. If CMC receives a warning that the enemy may use nuclear weapons, the readiness level is raised to "Second Class" status. At this status, units must prepare to move to firing positions or may actually deploy to firing positions, many of which can be tunnels or prepared underground, protected positions. The highest readiness status is "First Class Warning," where missile forces are fully ready to fire and are either deployed or in combat positions and with their support elements, warheads, and fuel, waiting for a launch order.

Nuclear Command and Control
Second Artillery Corps doctrine requires "comprehensive coordination with other headquarters and commands. In order to maintain that level of communication throughout the force, command and control for missile forces is highly centralized, redundant, and networked. Two PLA officers writing in the book *Missile Combat in High Technology Warfare* describe Second Artillery command and control this way: "The nodes in a ballistic missile command and control network are 1) the commander in chief (*tongshuaibu*), 2) the command organizations of the military departments, 3) the missile bases, and 4) the firing units." Furthermore, they say, "especially where it concerns strategic missiles, the ability of the commander in chief [this can also be translated as "supreme command authority"] to control firing orders must be executed quickly, and firing orders must be **encrypted** (encoded)."

The Central Military Commission is likely to have a dedicated command, control, and communications network for warhead management and directing nuclear strikes. Within a missile base, battalion-level entities under **communications regiments** are responsible for managing a dedicated satellite ground station, microwave communications facility, and fiber optic or other landline communications.

Technology Upgrades
The PLA is currently fielding advanced communications technology, such as a communications network: switching systems, fiber optics, satellite-to-ground and ground-to-satellite communications, microwave communications, cellular telephones, and pagers. New **shortwave systems** are now also being deployed in the Second Artillery.

In late 2009, it was reported that the Second Artillery Corps was constructing a 5000 km-long underground launch and storage facility for nuclear missiles in Hebei province. *47 News* reported that the facility was likely located in the Taihang Mountains. Figure 5 gives approximate locations of reported tunneling which coincides with the location of the six SAC Bases/Divisions.

Figure 5 – Approximate areas of reported tunneling

Two Chinese DF-5 ballistic missiles on military trains being transported in an underground tunnel.

M89 and Second Artillery Corps Location

If one looks at the locations of M89 stations, that were obtained by the ITU Monitoring station in Japan by Direction Finding, and compare these with the location of Second Artillery Corps Divisions, the outcome is quite revealing as can be seen in this table and in the Google map contained in figure 6.

Base/Division	Base/Division Location	M89 Station Location	Callsign
SAC HQ	40 01'N 116 20'E	40 10'N 116 10'E	Q7NW
51	41 47'N 123 25'E	41 39'N 123 32'E	DRV8
52	30 06'N 118 10'E	29 41'N 119 50'E	QV5B
53	25 04'N 102 41'E		
54	34 41'N 112 28'E	35 12'N 108 17'E	GNXG
55	27 33'N 109 57'E		
56	36 37'N 101 46'E	36 18'N 104 25'E	CZT2
Unknown	Urumqi Region	43 26'N 90 14'E	3A7D
Unknown		24 18'N 110 20'E	NYZ

This is why I've come to the conclusion that M89 is probably the communication network of the Second Artillery Corps. I realize that this is speculation on my part and reliable information from Chinese sources is not available to confirm my findings, but I feel that I'm on the right track. My conclusion is also based on 5 years of concentrated monitoring of M89, as well as 42 years of experience in Signals where I gained expertise in Division, Brigade and Company level communication infrastructure. From my observations, M89 HF CW communications we hear most days (Channel Markers with the odd message) are probably Divisional Level backup HF Circuits.

The majority of communications supplied by the Signal Regiments in the field would use VHF/UHF systems, which provide reliable point to point communications and, since they are line-of-sight, are almost impossible to be intercepted. I've included a few news articles of SAC Signal Regiments exercising in the field showing VHF/UHF antennas being used.

Occasionally, we get a flurry of activity. The most recent was in September and May 2012. From my observations, this activity is probably a Brigade Level exercise as the control stations work the same outstations. In the case of the May exercise, if we look at the Order of Battle Chart on page 9, it appears that SAY7 could have been Base/Division 51, 53, or 55. Since Base 51 is quite far from the GlobalTuners in Hong Kong and signal strength from DRV8 is usually quite weak, I'm guessing that the exercise was either Base 53 or 55. I've extracted what information I was able to obtain during the May and Sep Exercises and have included this on a chart at the end of this article. It would appear that exercises take place every four months, May, Sep, and Jan. Also see PLA news articles on Signal Regiment Exercise in May 2005 at the end of this article.

Direction finding equipment being used by the Tokyo ITU monitoring station has provided us with a good approximation of the location of M89 stations being heard. The close proximity of DRV8 and Q7NW to Tokyo has naturally provided much better DF fixes. In the case of QV5B, research has shown that this Signals Unit is located in Jiangxi Province, which is roughly where

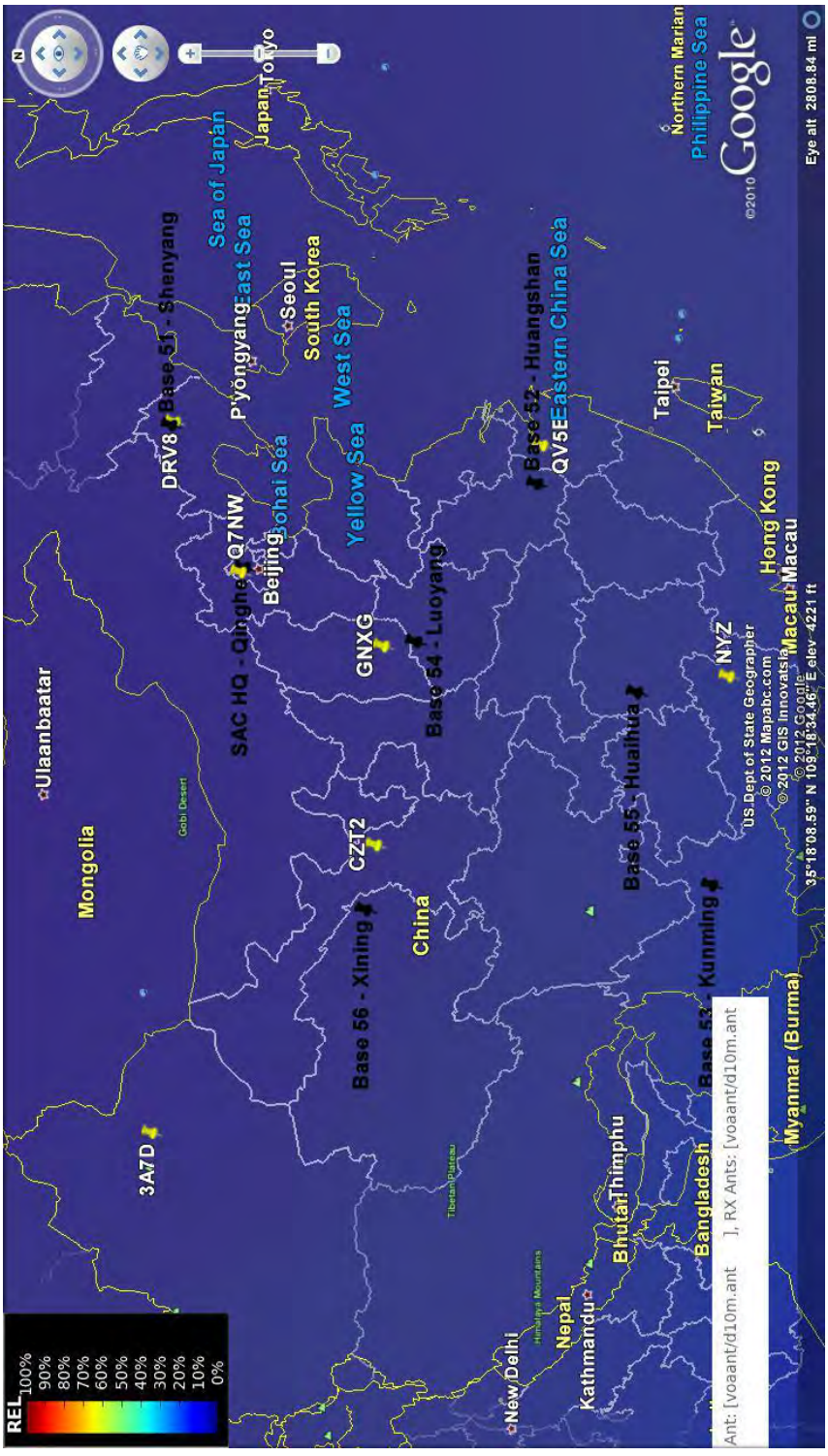


Figure 6 – Google map depicting location of M89 stations in relation to SAC Bases/Divisions

DF fixes this station. Since the other stations are much further away from Tokyo, it is expected that these DF fixes are less accurate.

Unfortunately, monitoring has not provided us with any stations associated with Base 53 and Base 55, except for possibly NYZ. Due to the fact that NYZ uses a 3 letter callsign and only transmits for a 5 minutes period at 20 minutes pass the hour, and has never been heard sending any traffic, I don't believe that this station in involved in SAC communications. My "gut feel" is that this station is naval related.

Getting back to Base 53 and 55, I occasionally hear M89 type stations in traffic which are using known M89 frequencies. The odd thing is that the signal is usually louder than the M89 station that normally uses this frequency. For example, I recently copied such a station on 5801, which is normally used by 3A7D, and is always very weak to copy. Due to the signal strength of the received signal, the station could probably be located in the areas of Base 52, 53 or 55.

As can be seen on the map, 3A7D is not located near any of the 6 Bases, but due to the large number of fixes on this station, I believe that the location is probably correct. This is the second hardest station for me to hear from the Hong Kong Tuner. If one looks at the map in Figure 5 depicting areas of suspected tunnelling, there is an area in the region of Urumqi which is close to the location for 3A7D. So it does make sense to have a SAC communication infrastructure in this remote location.

The most difficult station to monitor is CZT2. This could be due to its location, propagation and the frequencies being used by this station.

Over time and with more copies of messages being sent, it might be possible, through traffic analysis, to determine with greater certainty which of the units, from the Order of Battle, messages are originating from.

In my research, I also found reference to ELF/VLF/LF transmitters, but further research pointed to these belonging to the Chinese Navy. However, there were a few LF transmitters that I was unable to confirm as being Navy, so they may belong to the SAC, as LF transmissions during a nuclear conflict is still a viable option.

Another of my research projects was to use propagation as a means of determining the transmitter foot print of each M89 station. Again, this is not an exact science, but I've come to the conclusion that each M89 station's transmitted signal frequency, for both day and night frequencies, have been chosen to cover the Base/Division area where the station is located. Figure 7 visually depicts the area being covered by station 3A7D on 7602 Mhz at 0300z, which is the Urumqi area.

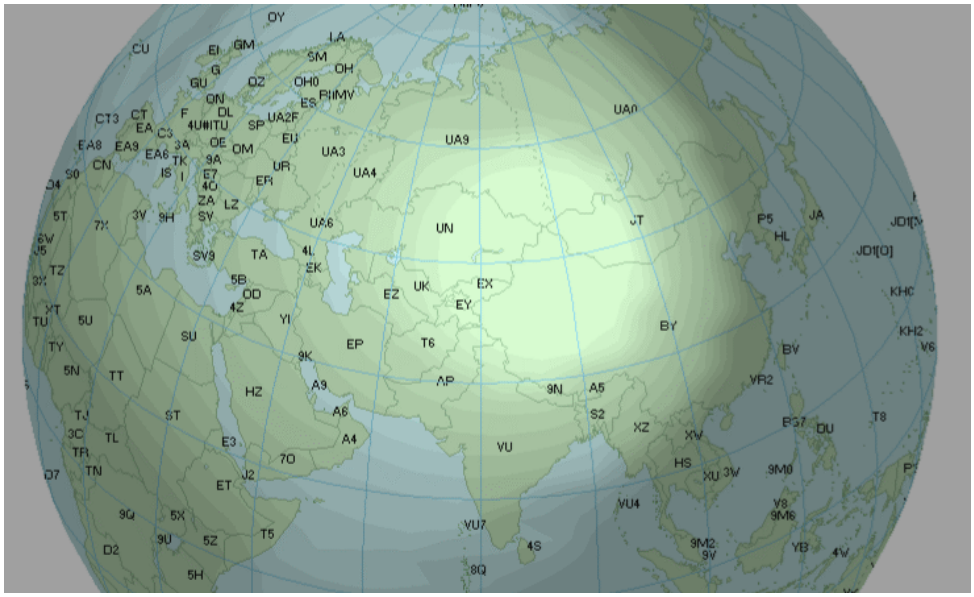


Figure 7 – Signal coverage of station 3A7D on 7602 Mhz at 0300z

As for traffic being sent by M89 stations, as indicated in my Internet research on the SAC, all messages sent are encrypted. A large amount of traffic is being sent, but only a very small number are heard due to the large area of China and the lack of E2K monitors nearby.

Through the use of Internet research, Direction Finding data, location of SAC Bases/Divisions, and traffic pattern, I've come to the conclusion that M89 is probably the communication network of the Second Artillery Corps. A lot more work is required to solidify this theory and the best way of doing this is to increase the amount of monitoring of M89 known frequencies by E2K members.

PLA Signaler in Radio Van using Morse Code key

M89 Sep 12 Exercise Traffic Pattern Chart

Date	Times	Freq	Msg Sent	Msg QSL (Appears that msg nrs revert to 1 each day)
11	0301 – 0405	8014	04	1103 1121
12	0151-0345	8014	07	1136
13	Not Monitored	8014		
14	0157 – 0430	8014	16 - 21	1103 1142
15	0132 - 0352	8014	18 – 22	1048 1100
16	0208 – 0606	8014	17-22	1102 1120 1235 1300 1334
17	N/H	8014		
18	N/H	8014		
11	1959 – 2028	4047	0040	
11	1438 – 1503	4047	0039	
12	1429 – 1450	4047	0043	
13	Not Monitored	4047		

IEC: (These 4 numbers were sent to all stations checking into the net and seem to change daily. Number 5816 was used 3 times. Unsure about the meaning or purpose of this number. I thought it might be a reference to a frequency and periodically monitored the IEC given for the day, but did not hear any signals.)

8321 / 5816 / 9835 / 2109

Unknown message header number: After looking over the various messages that were sent on 8014 and 4047, I noticed that there was always a two number figure in the message header. Don't know the meaning of this number which always consisted of the following three numbers:

42 / 75 / 80

Composition of Net on 4047:

CM8Z (Control station)

0OQX (Zero OQX)

8NOS

F1PZ

F5SU

DPU2

Note: Since this net operated during my daytime hours, and I was away on holidays, did not get to monitor this station after 13 Sep.

Composition of net on 8014:

Note: From what I've been able to determine, there were actually 2 nets on this frequency. The first net consisted of the following stations:

F7UT

J7OX (8864)

HPU3 (8799)

8IMZ (8149)

Note: The control station never sent a callsign. The number after the callsign appears to be the address of the station – just a guess on my part. It appears that the address of the control station is 9049. This net was only heard once, so possibly switched to another frequency.

The second net consisted of the following stations:

DNP2 (Control station) (Callsign was also sent as DMP2)

0JPY (Zero JPY)

HHP5

F7SX

M89 May 12 Exercise Traffic Pattern Chart

Date	Times	Freq	Msg Sent	Msg QSL
14	1636 – 1703	6837	1671	
15	Not Monitored	6837		
16	1638 – 1648	6837	Mostly U/R	
17	1600 – 1617	6837	Chat only	
17	2005 – 2017	6837	Chat only	
17	2206 – 2212	6837	1936 (?)	
18	1205 – 1319	6837	1983/EX 1984/EX 1985 1986 1987 1988(?)	
19	1201 – 1212	6837	Chat only	
20	Not Monitored	6837		
21	1200 – 1213	6837		
22	1201 – 1230	6837	1223/EX 1224/EX 1225/CCK	
23	1203 – 1221	6837	1319/EX 1320/EX 1321/CCK	
24	1200 – 1250	6837	1415/EX 1416/EX 1417/CCK	310
24	1903 – 2116	6837	1447/EX 1448/EX 1449/CCK	
25	1159 – 1328	6837	1511/EX 1512/EX 1513/CCK	
25	1559 – 1640	6837	1527/EX 1528/EX 1529/CCK	
25	2152 – 2306	6837	1516/EX(?) 1552/EX 1553 1554 208 2986/EX 2987	0609 0621 0633 0649 0659

IEC:

During this Exercise, only one IEC was used: 76MO

Net Composition:

SAY7 (Control Station)

8UPT

3NLA

AX6I

X9SB

XFI8

G3JZ

A number of news article on Second Artillery Communication Regiment

The officers and men of a communication regiment of the Second Artillery Force (SAF) of the Chinese People's Liberation Army are maintaining their equipment. (China Military Online/Yang Yonggang, Zhang Jiangang and Zhang Qi) (Source: China Military Online) 2012-01-11

SAF communication regiment drills hard to achieve proficiency in communication skills

Yesterday, the reporter tramped over hills and dales to a mountain valley to cover an exercise conducted by a communication regiment of the Second Artillery Force (SAF). When I arrived there and looked around, not a single soul could be seen. But the topographic map showed clearly that the exercise detachment should be where the reporter was in the valley. The reporter was perplexed.

The reporter was about to leave the place when Political Commissar Jiang Guofu of the regiment rang him up and told him: "The place where you stand is a vehicle-mounted satellite station". Before long, a miracle happened. With the snow camouflage net removed, a bustling scene suddenly appeared before the reporter. Well-equipped officers and men were operating on field communication equipment in an orderly way. The vehicle-mounted satellite station was busy processing and transmitting various data…. The reporter felt as if he could smell the odor of gunpowder on the invisible battlefield.

Suddenly, deafening roar came from the valley. Dozens of field communication support equipment, including communication command vehicles, frequency hopping radio vehicles, etc. drove out from thick woods. No sooner had the field communication support detachment finished its shakedown test than the communication line linking a missile launching detachment was attacked by the "enemy", resulting in the "breakdown" of several support equipment. However, Kang Weijie, a third-class NCO, with his unrivalled skills, fixed the communication system paralyzed by "enemy virus" attack in only ten minutes, and the system was brought back to life once again. In the distance, two red signal flares streaked up into the sky. In an instant, over 1,000 troops and 100 vehicles, with the help of modern "stealthy" technologies, swiftly "disappear" into the mountains. The vast snowfield once again returned its tranquility…

By Li Yongfei and Wang Yongxiao (Feb.16, PLA Daily)

Signal battalion toughens troops in field exercise

In late January, the strong north wind brought biting cold to the heart of a mountain where the 1st Battalion of a communication regiment of the Second Artillery Force was conducting an accompanying communication support exercise under actual war conditions despite the severe cold. For successive days, the officers and men made communication, executed emergency support plans, and successfully accomplished all the training subjects including the skilful operation of modern digital communication system, the switch from wire to wireless communication or vice versa, telegraph transmission, fax sending and reception and data transmission. The communication support capabilities under special conditions were effectively tested in the exercise.

In recent years, the battalion has participated in several major communication support missions and achieved a leapfrog progress in its overall communication support capabilities through exploring new measures of battlefield communication support. The battalion has been honored the "First-class Battalion in Military Training" by the Second Artillery Force and won one third-class collective merit.

By Sang Linfeng, Shi Ziqiang and Feng Jinyuan

(Feb.7, PLA Daily)

Tempering communication capability for future operation

PLA Daily 2005-05-27

A communication station was bombed by the "enemy" and all communication stopped…

Time means the opportunity for operation and the life of human being. The communication element departed rapidly and rushed to the "spot". After 15 minutes of work, all equipment of the station were changed and communication resumed. This was a scene of emergency communication support exercise organized by the Second Artillery Force in early May. In recent years, troops of the Second Artillery Force have actively explored the effective approaches of linking between command communication system and systems of main combat weapons, intelligence reconnaissance, radar detection and electronic confrontation, intensified their efforts in systematic building of the battlefield, equipment and competent personnel, so as to boost constantly the overall support and rapid response capabilities of the communication troops (elements).

By Zhang Chunyan, Guo Zhuwen and Lu Guoxing

（May 27, PLA Daily)

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http://www.sinodefence.com/strategic/organisation.asp 06 May 12

China's Nuclear Warhead Storage and Handling System by Mark A. Stokes March 12, 2010

With Remembrance upon us the closing lines of the last verse are as valid today as they were when this piece was written:

Suicide in the Trenches

I knew a simple soldier boy
Who grinned at life in empty joy,
Slept soundly through the lonesome dark,
And whistled early with the lark.

In winter trenches, cowed and glum,
With crumps and lice and lack of rum,
He put a bullet through his brain.
No one spoke of him again.

You smug-faced crowds with kindling eye
Who cheer when soldier lads march by,
Sneak home and pray you'll never know
The hell where youth and laughter go.

Siegfried Sassoon

Chart Section Index

For September and October 2012

Logging Abbreviations explained.

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

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

Station:	E07	[Traits of stations in ENIGMA Control List]
Freq:	kHz	[As above 10436kHz]
Time:	z	[Always 24hour clock, 'z' states GMT/UTC]
Date:	day/month [As above 7th June]	

Msg detail: Varies with station

ID taken from 100kHz fig in freqs:	414 [freqs used in this schedule were 13468, 12141 and 10436kHz]
Msg count	1
Dk [decode key]:	563
Gc [group count]:	102
First group of msg:	92632
Text between grps:	…
Last group:	09526 [where more than one group is stated the use of LG ahead group indicates 'Last Group.']
Ending:	0 0 0 0 0 0
Time msg ends:	1753z
Received signal strength assessment:	Fair
Noise	QRM2
Fading to signal	QSB2

Monitor:	PLdn	
Day heard:	SUN	
Unknown:	unk	
Repeat:	R	[which can be expanded to mean]:
Repeated :	R5m [repeated 5 mins]; R5s[repeated 5seconds], R5x [Repeated 5 times]	

Received signal strength assessment.

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

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

Guidance for this can be sought from the Q code:

QSA What is the strength of my signals (or those of...)?
The strength of your signals (or those of...) is...
1) scarcely perceptible.
2) weak.
3) fairly good.
4) good.
5) very good.
[QSA1 S0 to S1; QSA2 S1 to S3; QSA3 S3 to S6; QSA4 S6 to S9; QSA4 S9 and above]

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

Noise, Static and Fading.

Again guidance from the Q code:

Noise:

QRM Are you being interfered with?
I am being interfered with
1) nil
2) slightly
3) moderately
4) severely
5) extremely.

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

Static [Lightning and other atmospheric disturbance]:

QRN Are you troubled by static?
I am troubled by static
1) nil
2) slightly
3) moderately
4) severely
5) extremely.

Fading [Propagational disturbance]

QSB Are my signals fading?
Your signals are fading
1) nil
2) slightly
3) moderately
4) severely
5) extremely.

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

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

Day Abbreviation

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

Mode used in transmission

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

Languages used

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

Non voice stations

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

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

See a correct example below which is now self explanatory:

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

And the incorrect version:

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

Additional Info:

Own station idents should not be used.

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

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

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

NUMBER SYSTEMS

European Numbers sytems:

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

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

2 ZWEI pronounced as TSWO

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

9 NEUN pronounced by some as NEUGEN

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

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

	Actual Polish[S11]	**S11a Cherta**	**S11 Kreska**	**S10d**	**S17c**
0	zero	nul	zero	Nula*	Nula*
1	jedynka	adinka	yezinka	Jeden^	Jeden^
2	dwójka	dvoyka	dvonta	dva	dva
3	trójka	troyka	troika	tri ‘	tri ‘
4	cztery	chetyorka	chidiri	shytri	shytri
5	pi¹tka	petyorka	peyonta	pyet	pyet
6	szeœæ	shest	shes	shest	shest
7	siedem	syem	sedm	sedoom	sedoom
8	osiem	vosyem	osem	Osoom~	Osoom~
9	dziewie,c'	dyevyet	prunka	devyet	devyet

Notes on Numeral Systems used on selected Slavic Stations:

* Nula heard as ‘nul’

^ Jeden heard as ‘Yedinar’

‘ Tri heard as ‘she’

~ Osoom often heard as ‘bossoom’ or ‘Vossoom.’

Arabic Numerals [E25 and V08]

English	zero	one	two	three	four	five	six	seven	eight	nine
	0	1	2	3	4	5	6	7	8	9
Arabic	sifr	wahid	itnien	talata	arba	khamsa	sitta	saba	tamanya	tissa
	٠	١	٢	٣	٤	٥	٦	٧	٨	٩

Chinese Number System:

[*Particular attn to Yi/Yao pse*].

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

Shi	Ten	Ba	One Hundred	Wan	One Thousand

Chinese numeral construction:

For example:

San	Three
San Shi	Thirty. In English they are saying Three and Ten.
San Shi Jiu	Thirty Nine. In English they are saying Three, Ten and Nine.
San Bai	Three Hundred. In English they are saying Three and One Hundred.
San Wan	Three Thousand. In English they are saying Three and One Thousand.

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
	x		x				0440/0500/0520		M12	01B	5872/ 6772/ 7672 876	4443/ 5043/ 5843 408
x							0450		E11	03	5082 416/00	5082 416/00
		x					0530/0540		S06S	01A	9435,11075 153	9435,11075 153
			x				0530/0550/0610		E07A	01B	5146/ 5846/ 6846 188	5146/ 5846/ 6846 188
				x			0600/0610		S06S	01A	5460/ 7070 934	5460/ 934, search
			x	x			0600/0700		E06	01A	16200/18200 507	13910/15940 923
	x		x				0645		E11	03	7840 517/00	7840 517/00
						x	0700		M01	14	5465 197	5465 197
	x						0700/0800	2	M14	01A	5785/ 5895 178	5785/ 5895 178
				x			0700/0710		S06S	01A	7150/ 8215 916	7150/ 8215 916
	x						0700/0710(15)		S06S	01A	5250/ 6320 374	5250/ 6320 374
				x			0700/0720/0740		M12	01B	9338/10638/12138 238	8060/ 9060/10160 238
	x			x			0710		E11	03	10800 633/00	10800 633/00
	x		x				0745		E11	03	16112 335/00	16112 335/00
			x				0800		E17Z	01A	11170, 9820 674	11170, 9820 674
x							0800		G06	01A	5363 215	5363 215
	x						0800/0810		S06S	01A	10265/ 9135 352	10265/ 9135 352
x		x					0800/0820/0840		M12	01B	17427/15827/14527 485	14819/13919/12219 892
x			x				0820		E11	03	7317 438/00	7317 438/00
		x					0820/0830		S06S	01A	6880/ 7840 471	6880/ 7840 471
x			x				0830		E11	03	9446 649/00	9446 649/00
		x					0830/0840		S06S	01A	7335/11830 745	7335/11830 745
		x					0840/0850		S06S	01A	9260/11415 328	9260/11415 328
x		x					0900		E11	03	9446 534/00	9446 534/00
			x				0900/0910		S06S	01A	12952/13565 167	12952/13565 167
	x			x			0915		S11A	03	7504 484/00	7504 484/00
			x				0930/0940		S06S	01A	7865/ 5310 314	7865/ 5310 314
				x			0930/0940		S06S	01A	11780/12570 516 9445/10195 search	11780/12570 516 9445/10195 search
	x						1000/1010		S06S	01A	6440/ 5660 893	6440/ 5660 893
		x					1000/1010		S06S	01A	12365/14280 729	12365/14280 729
x			x				1015		S11A	03	12530 475/00	12530 475/00

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
	x			x			1020		S11A	03	9610 426/00	9610 426/00
		x			x		1020		S11A	03	6433 221/00	6433 221/00
	x						1045		E11	03	10800 576/00	10800 576/00
	x	x					1045		E11	03	8091 469/00	8091 469/00
x				x			1110		E11	03	14410 95#/00	14410 95#/00
	x	x	x				1115		M03	03	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)
						x	1120/1220	2	E06	01A	6842/ 5866 154	6842/ 5866 154
		x	x			x	1155		E11	03	15632 718/00	15632 718/00
		x					1200/1210		S06S	01A	7030/ 6305 481	7030/ 6305 481
			x				1200/1210		S06S	01A	10580/9950 (12155/10920) 425	10580/9950 (12155/10920) 425
					x		1200/1210	1	S06S	01A	8680/ 8260 254	8680/ 8260 254
		x					1230/1240		S06S	01A	4580/ 6420 967	4580/ 6420 967
x							1300/1310		S06S	01A	8420/10635 831	8420/10635 831
x							1300/1320/1340		M12	01B	9187/ 8057/ 7697 106	9223/ 8193/ 7463 214
			x			x	1320		M03	03	4828 437/00	4828 437/00
				x	x		1325		G11	03	6433 299/00	6433 299/00
					x		1500		M01	14	5810 197	5810 197
		x					1500/1520/1540		M12	01B	8112/ 7552/ 6792 106	7509/ 6909/ 5709 214
	x						1500/1510		S06S	01A	5070/ 6337 537	5070/ 6337 537
	x			x	x		1535		M03	03	5358 798/00	5358 798/00
x						x	1540		E11	03	15632 228/00	15632 228/00
					x		1600 (1605)		S06	01A	7728/ 6788 134	7728/ 6788 134
x							1600/1610		S06S	01A	7436/ 6668 176	7436/ 6668 176
		x					1600/1620/1640		M12	01B	12162/11561/10711 546	12162/11561/10711 546
				x			1600/1620/1640		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
			x				1605		M01B	14	5938 159	5938 159
				x			1615		M01B	14	5810 158	5810 158
x							1700	1/2	G06	01A	3754 154	3754 154
x			x				1700/1720/1740		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
		x					1700/1720/1740		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463
			x				1700/1720/1740		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
				x			1710		E11	03	6924 95#/00	6924 95#/00
			x				1730		E11	03	5082 416/00	5082 416/00
	x					x	1755		G11	03	6433 270/00	6433 270/00
x							1800	1/2	G06	01A	4467 154	4467 154
	x		x				1800		M01	14	5320 197	5320 197
	x						1800		S06	01A	3645 617	3645 617
x							1800/1820/1840		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
		x				x	1800/1820/1840		E07	01B	8183/ 6982/ 5938 199	6982/ 5836/ 4938 989
			x	x			1800/1820/1840		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
	x		x				1802		M45	14	3525, 4025 525	3525, 4025 525
	x						1820		M14	01A	4636 186	4636 186
			x				1830	2/4	G06	01A	4519 271	4519 271
	x						1830/1850/1910		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
		x					1830/1850/1910		M12	01B	11435/10598/ 9327 938	11435/10598/ 9327 938
		x				x	1830/1850/1910		M12	01B	search	9168/ 7968/ 194, search
	x		x				1842		S21	14	3323, 3823 323	3323, 3823 323
x			x				1900 (1905)		S06	01A	3192/ 3838 349	3192/ 3838 349
x			x				1900/1920/1940		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
	x		x				1900/1920/1940		XPA	01B	8123/ 7523/ 6823	8164/ 7364/ 5864
x							1910		M01B	14	2435, 3519 853	2435, 3519 853
x							1915/2015	2/4	S06	01A	search	search
		x					1920/2020	2	E06	01A	3622/ 3812 154	3622/ 3812 154
		x					1920	2/4	M14	01A	4761 748	4761 748
				x			1930	2/4	G06	01A	4792 436	4792 436
					x		1930 (1935)		S06	01A	3212/ 4029 843	3212/ 4029 843
			x				1932		M01B	14	2466, 3545 910	2466, 3545 910
	x	**x**					2000		E11C	03	4909 757/0000/00	4909 757/0000/00
				x			2000		E11	03	576/00, search	576/00, search
				x		x	2000		G11	03	4441 262/00	4441 262/00
	x		x				2000		M01	14	4490 197	4490 197
x		x					2000/2020/2040		E07	01B	7724/ 6924/ 5824 798	7478/ 6778/ 5278 472
				x	x		2000/2100	1/3	M14	01A	4830/ 4471 724	3825/ 4470 724
					x		2000/2100	1/3	S06	01A	4481/ 3626 416	4481/ 3626 416

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
				x			2002		M01B	14	2655, 3197 866	2655, 3197 866
x							2015		M01B	14	2427, 3205 375	2427, 3205 375
			x				2030	1/3	E06	01A	4836 321	4836 321
					x		2030/2130	1/3	S06	01A	5118/ 4452 314	5118/ 4452 314
			x				2042		M01B	14	2485, 3160 382	2485, 3160 382
		x					2100/2120/2140		E07A	01A	5864/ 5164/ 4564 815	5864/ 5164/ 4564 815
				x			2110		M01B	14	2405, 3180 610	2405, 3180 610
			x				2110/2130/2150		E07	01B	6777/ 5449/ 4483 774	6777/ 5449/ 4483 774
				x			2130		E06	01A	4760 472	4760 472
		x					2200/2220/2240		M12	01B	5429/ 4629/ 4029 460	5312/ 4512/ 350, search

M01 M01b M45 Frequency Schedule

Compare with current logs

M01 Sunday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	197	197	463	463	025	025	025	025	463	463	197	197
0700	5464	5464	6508	6508	6780	6780	6780	6780	6508	6508	5464	5464

M01b Monday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID				420	364	364	364	364	420	420		
1810				3535	5125	5125	5125	5125	3535	3535		
//				4590	5735	5735	5735	5735	4590	4590		
ID	853	853	420								853	853
1910	2435	2435	3535								2435	2435
//	3520	3520	4590								3520	3520
ID				771	858	858	858	858	771	771		
1915				3644	5150	5150	5150	5150	3644	3644		
//				4454	5475	5475	5475	5475	4454	4454		
ID				298	729	729	729	729	298	298		
2010				4991	5815	5815	5815	5815	4991	4991		
//				5336	6769	6769	6769	6769	5336	5336		
ID	375	375	771								375	375
2015	2427	2427	3644								2427	2427
//	3205	3205	4454								3205	3205
ID	136	136	298								136	136
2110	4615	4615	4991								4615	4615
//	5065	5065	5336								5065	5065

M01 Tuesday/Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	197	197	463	463	025	025	025	025	463	463	197	197
1800	5320	5320	5474	5474	5280	5280	5280	5280	5474	5474	5320	5320
2000	4490	4490	5017	5017	4905	4905	4905	4905	5017	5017	4490	4490

M01b Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**	**159**
1505				5938	5938	5938	5938	5938	5938	5938		
1605	5938	5938	5938								5938	5938
ID				**201**	**815**	**815**	**815**	**815**	**201**	**201**		
1832				3510	5095	5095	5095	5095	3510	3510		
//				4605	5760	5760	5760	5760	4605	4605		
ID	**910**	**910**	**201**								**910**	**910**
1932	2466	2466	3510								2466	2466
//	3545	3545	4605								3545	3545
ID				**477**	**936**	**936**	**936**	**936**	**477**	**477**		
1942				3715	5064	5064	5064	5064	3715	3715		
//				4570	5805	5805	5805	5805	4570	4570		
ID				**302**	**931**	**931**	**931**	**931**	**302**	**302**		
2032				4905	5763	5763	5763	5763	*4905*	*4905*		
//				5736	5941	5941	5941	5941	*5736*	*5736*		
ID	**382**	**382**	**477**								**382**	**382**
2042	2485	2485	3715								2485	2485
//	3160	3160	4570								3160	3160
ID	**514**	**514**	**302**								***514***	***514***
2132	4603	4603	4905								*4603*	*4603*
//	4991	4991	5736								*4991*	*4991*

M01b Friday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**	**158**
1515	xxxx	xxxx	xxxx	5810	5810	5810	5810	5810	5810	5810	xxxx	xxxx
1615	5810	5810	5810								5810	5810
ID										**365**	**444**	
1708										6365		
1808											6444	
ID				**153**	**336**	**336**	**336**	**815**	**153**	**153**		
1902				3625	5075	5075	5075	5075	3625	3625		
//				4440	5465	5465	5465	5465	4440	4440		
ID	**866**	**866**	**153**								**866**	**866**
2002	2653	2653	3625								2653	2653
//	3197	3197	4440								3197	3197
ID				**582**	**467**	**467**	**467**	**467**	**582**	**582**		
2010				3520	4895	4895	4895	4895	3520	3520		
//				4585	5340	5340	5340	5340	4585	4585		
ID				**271**	**871**	**871**	**871**	**871**	***271***	***271***		
2102				4766	5329	5329	5329	5329	*4766*	*4766*		
//				5443	5752	5752	5752	5752	*5443*	*5433*		
ID	**610**	**610**	**582**								**610**	**610**
2110	2405	2405	3520								2405	2405
//	3180	3180	4585								3180	3180
ID	**419**	**419**	**271**								***419***	***419***
2202	4508	4508	4766								*4508*	*4508*
//	4706	4706	5443								*4706*	*4706*

M01 Saturday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**197**	**197**	**463**	**463**	**025**	**025**	**025**	**025**	**463**	**463**	**197**	**197**
1500	5810	5810	6261	6261	6434	6434	6434	6434	6261	6261	5810	5810

M45 Tuesday/Thursday

	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sept	Oct	Nov	Dec
ID	**525**	**525**	**555**	**555**	**074**	**074**	**074**	**074**	**555**	**555**	**525**	**525**
1702					5074	5074	5074	5074				
//					5474	5474	5474	5474				
1802	3525	3525	4555	4555					4555	4555	3525	3525
//	4025	4025	4955	4955					4955	4955	4025	4025

With a receiver set to CW mode you will hear two tones. The table above shows the lower tone. Add 2kHz for other tone. These tones are modulated allowing you to hear this in AM mode.

M01b is undergoing some changes and not all those listed are active. Frequencies not heard are in *italics* and shaded whilst the frequencies of those not heard for rest of year are also *italicised*

Revised 4th May, 2012

M12 Log1 Sep 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 1	13**10**	13873	13**30**	13373	13**50**	- - -	834	0 0 0	
	21**10**	11469	21**30**	10469	21**50**	- - -	441	0 0 0	
Sun 2	18**30**	15926	18**50**	13926	19**10**	12126	991	453	219
Mon 3	04**30**	5792	04**50**	6992	05**10**	- - -	796	0 0 0	
	1300	14372	1320	13472	1340	11472	344	821	127
	1600	12162	1620	11566	1640	10711	546	9248	92
	1700	9176	1720	7931	1740	6904	257	2219	80
	1800	9176	1820	7931	1840	6904	257	4107	47
	1900	9176	1920	7931	1940	6904	257	9095	40
Tue 4	18**30**	10343	18**50**	9264	19**10**	8116	124	9766	63
Wed 5	1500	13524	1520	11524	1540	10334	344	821	127
	1700	8047	1720	6802	1740	5788	463	3161	53
	18**30**	11435	18**50**	10598	19**10**	9327	938	4159	68
	18**30**	15926^	18**50**	13926	19**10**	12126	991	959	177
	2100	6793	2120	5893	2140	- - -	785	0 0 0	
	21**10**	11469	21**30**	10469	21**50**	9169	441	784	91
Thu 6	1700	9176	1720	7931	1740	6904	257	3476	95
	1700	10343	1720	9264	1740	8116	124	2049	77
	1800	10343	1820	9264	1840	8116	124	8769	81
	1900	9176	1920	7931	1940	6904	257	6421	44
Fri 7	1800	10343	1820	9264	1840	8116	124	2441	85

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 8	21**10**	11469	21**30**	10469	21**50**	9169	441	784	91
Sun 9	18**30**	15926	18**50**	13926	19**10**	12126	991	959	177
Mon 10	04**30**	5792	04**50**	6992	05**10**	- - -	796	0 0 0	
	1300	14372^	1320	13472^	1340	11472	344	141	133
	1600	12162	1620	11566	1640	10711	546	4218	93
	1700	9176^	1720	7931	1740	6904	257	9884	74q
	1800	9176	1820	7931	1840	6904	257	5257	49
	1900	9176	1920	7931	1940	6904	257	4754	79
Tue 11	18**30**	10343	18**50**	9264	19**10**	8116	124	8603	51
Wed 12	1500	13524	1520	11524	1540	10334	344	141	133
	1700	8047	1720	6802	1740	5788	463	2142	49
	18**30**	11435	18**50**	10598	19**10**	9327	938	2564	66
	18**30**	15926^	18**50**	13926	19**10**	12126	991	181	109
	2100	6793	2120	5893	2140	4593	785	994	81
	21**10**	11469	21**30**	10469	21**50**	- - -	441	0 0 0	
Thu 13	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	13**10**	13873	13**30**	13373	13**50**	- - -	834	0 0 0	
	1700	9176	1720	7931	1740	6904	257	5534	73
	1700	10343	1720	9264	1740	8116	124	2120	78
	1800	10343	1820	9264	1840	8116	124	5558	94
Fri 14	1800	10343	1820	9264	1840	8116	124	2441	85

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0

^ Weak reception NH Not Heard NF Not Found

Thanks to Fritz (FN) for finding the ID 761 sched 0630z Thurs

M12 Log2 Sep 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 15	13**10**	13873	13**30**	13373	13**50**	- - -	834	0 0 0	
	21**10**	11469	21**30**	10469	21**50**	- - -	441	0 0 0	
Sun 16	18**30**	15926	18**50**	13926	19**10**	12126	991	181	109
Mon 17	04**30**	5792	04**50**	6992	05**10**	- - -	796	0 0 0	
	1300	14372	1320	13472	1340	11472	344	444	271
	1600	12162	1620	11566	1640	10711	546	8320	73
	1700	9176	1720	7931	1740	6904	257	2353	80
	1800	9176	1820	7931	1840	6904	257	1232	42
	1900	9176	1920	7931	1940	6904	257	9822	73
Tue 18	18**30**	10343	18**50**	9264	19**10**	8116	124	6467	61
Wed 19	1700	8047	1720	6802	1740	5788	463	1999	95
	18**30**	11435	18**50**	10598	19**10**	9327	938	7055	67
	18**30**	15926	18**50**	13926	19**10**	- - -	991	0 0 0	
	2100	6793	2120	5893	2140	- - -	785	0 0 0	
	21**10**	11469^	21**30**	10469	21**50**	- - -	441	0 0 0	
Thu 20	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	1700	9176	1720	7931	1740	6904	257	8463	84
	1700	10343	1720	9264	1740	8116	124	4082	76
	1800	10343	1820	9264	1840	8116	124	2643	87
	1900	9176	1920	7931	1940	6904	257	4689	50
Fri 21	1800	10343	1820	9264	1840	8116	124	852	41

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sat 22	21**10**	11469	21**30**	10469	21**50**	9169	441	312	97
Sun 23	18**30**	15926	18**50**	13926	19**10**	- - -	991	0 0 0	
Mon 24	04**30**	5792	04**50**	6992	05**10**	- - -	796	0 0 0	
	1300	14372	1320	13472	1340	11472	344	140	195
	1600	12162	1620	11566	1640	10711	546	852	41
	1700	9176	1720	7931	1740	6904	257	9166	76
	1800	9176	1820	7931	1840	6904	257	6206	54
	1900	9176	1920	7931	1940	6904	257	5387	96
Tue 25	18**30**	10343	18**50**	9264	19**10**	8116	124	1226	70
Wed 16	1500	13524	1520	11524	1540	10334	344	140	195
	18**30**	11435	18**50**	10598	19**10**	9327	938	4083	64
	18**30**	15926	18**50**	13926	19**10**	12126	991	615	203
	2100	6793	2120	5893	2140	- - -	785	0 0 0	
	21**10**	11469	21**30**	10469	21**50**	- - -	441	0 0 0	
Thu 27	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	13**10**	13873	13**30**	13373	13**50**	- - -	834	0 0 0	
	1700	9176	1720	7931	1740	6904	257	9229	64
	1700	10343	1720	9264	1740	8116	124	8810	49
	1800	10343	1820	9264	1840	8116	124	4639	48
Fri 28	1800	10343	1820	9264	1840	8116	124	9240	82

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0

^ Weak reception NH Not Heard NF Not Found

M12 Log1 Oct 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Mon 1	04**30**	4617	04**50**	5317	05**10**	- - -	638	0 0 0	
	1300	10804	1320	9324	1340	7964	839	513	55
	1600	12162	1620	11566	1640	10711	546	2907	94
	1700	9176^	1720	7931	1740	6904	257	6956	72
	1800	9176^	1820	7931	1840	6904	257	5586	68
	1900	9176^	1920	7931^	1940	6904	257	4445	80
Tue 2	18**30**	10343	18**50**	9264	19**10**	8116	124	2206	53
Wed 3	1500	9223	1520	8193	1540	7463	839	513	55
	1700	8047	1720	6802	1740	5788	463	4933	49
	18**30**	11435	18**50**	10598	19**10**	9327	938	4520	66
	18**30**	12217	18**50**	10617	19**10**	9317	263	880	165
	2100	5814	2120	5214	2140	- - -	826	0 0 0	
	21**10**	10269^	21**30**	9269	21**50**	- - -	229	0 0 0	
Thu 4	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	1700	9176	1720	7931	1740	6904	257	9803	82
	1700	10343	1720	9264	1840	8116	124	2240	76
	1800	10343	1820	9264	1840	8116	124	6757	61
	1900	9176	1920	7931	1940	6904	257	9409	43
Fri 5	1800	10343	1820	9264	1840	8116	124	5358	87
Sat 6	21**10**	10269	21**30**	9269	21**50**	- - -	229	0 0 0	
Sun 7	18**30**	12217	18**50**	10617	19**10**	9317	263	880	165

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Mon 8	04**30**	4617	04**50**	5317	05**10**	- - -	638	0 0 0	
	1300	10804	1320	9324	1340	7964	839	967	99
	1600	12162	1620	11566	1640	10711	546	2753	61
	1900	9176	1920	7931	1940	6904	257	5056	78
Tue 9	18**30**	10343	18**50**	9264	19**10**	8116	124	4532	70
Wed 10	1500	9223	1520	8193	1540	7463	839	967	99
	1700	8047	1720	6802	1740	5788	463	1628	41
	18**30**	11435	18**50**	10598	19**10**	9327	938	2380	68
	18**30**	12217	18**50**	10617	19**10**	- - -	263	0 0 0	
	2100	5814	2120	5214	2140	- - -	826	0 0 0	
	21**10**	10269^	21**30**	9269	21**50**	- - -	229	0 0 0	
Thu 11	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	13**10**	12214^	13**30**	10814^	13**50**	- - -	282	0 0 0	
	1700	9176	1720	7931	1740	6904	257	6249	55
	1700	10343	1720	9264	1840	8116	124	4635	74
	1800	10343	1820	9264	1840	8116	124	4589	72
	1900	9176^	1920	7931	1940	6904	257	9811	49
Fri 12	1800	10343	1820	9264	1840	8116	124	4475	75
Sat 13	13**10**	12214^	13**30**	10814^	13**50**	- - -	282	0 0 0	
	21**10**	10269	21**30**	9269	21**50**	- - -	229	0 0 0	
Sun 14	18**30**	12217	18**50**	10617	19**10**	- - -	263	0 0 0	

Highlighted cell indicates new or changed loggings

- - - Indicates no 3rd transmission sent as message 0 0 0

Thanks to Fritz (FN) for finding the ID 282 sched 1310z Thu / Sat

^ Weak reception NH Not Heard NF Not Found

M12 Log2 Oct 2012 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Mon 15	04**30**	4617	04**50**	5317	05**10**	- - -	638	0 0 0	
	1300	10804	1320	9324	1340	7964	839	137	245
	1600	12162	1620	11566	1640	10711	546	6070	91
	1700	9176	1720	7931	1740	6904	257	4403	72
	1800	9176	1820	7931	1840	6904	257	3815	41
	1900	9176	1920	7931	1940	6904	257	5036	99
Tue 16	18**30**	10343	18**50**	9264	19**10**	8116	124	1646	67
Wed 17	1500	9223	1520	8193	1540	7463	839	137	245
	1700	8047	1720	6802	1740	5788	463	3473	53
	18**30**	11435	18**50**	10598	19**10**	9327	938	5368	56
	18**30**	12217	18**50**	10617	19**10**	9317	263	479	197
	2100	5814	2120	5214	2140	- - -	826	0 0 0	
	21**10**	10269^	21**30**	9269^	21**50**	7969	229	608	119
Thu 18	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	13**10**	12214	13**30**	10814^	13**50**	9214	282	852	103
	1700	9176^	1720	7931	1740	6904	257	4709	87
	1800	10343	1820	9264	1840	8116	124	3140	89
	1900	9176	1920	7931	1940	6904	257	4937	48
Fri 19	1800	10343	1820	9264	1840	8116	124	737	47
Sat 20	13**10**	12214^	13**30**	10814	13**50**	9214	282	852	103
	21**10**	10269^	21**30**	9269	21**50**	7969	229	608	119
Sun 21	18**30**	12217	18**50**	10617	19**10**	9317	263	479	197

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Mon 22	04**30**	4617	04**50**	5317	05**10**	- - -	638	0 0 0	
	1300	10804	1320	9324	1340	7964	839	722	119
	1600	12162	1620	11566	1640	10711	546	737	47
	1700	9176	1720	7931	1740	6904	257	3075	73
	1800	9176	1820	7931	1840	6904	257	2743	55
	1900	9176	1920	7931	1940	6904	257	7299	68
Tue 23	18**30**	10343	18**50**	9264	19**10**	8116	124	2929	50
Wed 24	1500	9223	1520	8193	1540	7463	839	722	119
	1700	8047	1720	6802	1740	5788	463	4237	60
	18**30**	11435	18**50**	10598	19**10**	9327	938	7703	59
	18**30**	12217	18**50**	10617	19**10**	9317	263	923	99
	2100	5814	2120	5214	2140	- - -	826	0 0 0	
	21**10**	10269^	21**30**	9269	21**50**	- - -	229	0 0 0	
Thu 25	06**30**	6784	06**50**	7684	07**10**	- - -	761	0 0 0	
	13**10**	12214	13**30**	10814	13**50**	- - -	282	0 0 0	
	1700	9176	1720	7931	1740	6904	257	6982	87
	1700	10343	1720	9264	1840	8116	124	3973	72
	1800	10343	1820	9264	1840	8116	124	1711	42
	1900	9176	1920	7931	1940	6904	257	3769	67
Fri 26	1800	10343	1820	9264	1840	8116	124	540	47
Sat 27	13**10**	12214^	13**30**	10814^	13**50**	- - -	282	0 0 0	
	21**10**	10269^	21**30**	9269	21**50**	- - -	229	0 0 0	
Sun 28	18**30**	12217	18**50**	10617	19**10**	- - -	263	0 0 0	

Highlighted cell indicates new or changed loggings
- - - Indicates no 3rd transmission sent as message 0 0 0

^ Weak reception NH Not Heard NF Not Found

Family 1A History and November predictions - 29th Oct 2012

Station Day	time (utc)	2012 August	2012 September	2012 October	2012 November	ID Aug	ID Sept	ID Oct	ID Nov	week
G06 mon	08.00	6948	6774	6774	5463	215	215	215	215	every
G06 mon	17.00	5284	4639	4639	3854	154	154	154	154	1 & 2
G06 mon	18.00	4896	5378	5378	4587	154	154	154	154	1 & 2
S06 mon	18.15	15805	13475	11125		260	O36	451		2 & 4
S06 mon	19.00/05	7982/6984	5784/5127	5784/5127	3192/3838	349	349	349	349	every
S06 mon	19.15	13380	11060	9245		260	O36	451		2 & 4
M14 tues	07.00	9085	8120	8120	5785	576	362	362	178	2
M14 tues	08.00	9395	7395	7395	5895	576	362	362	178	2
S06 tues	18.00	xxxxx	xxxxx	5890		xxx	xxx	286		1 & 2
M14 tues	18.20	6856	5947	5947	4636	163	346	346	186	2 & 4
M24 wed	09.00				11073 ?				352	?
M24 wed	17.00				5410 ?				352	?
M14 wed	19.20	5938	5463	5463	4761	417	537	537	748	2 & 4
E06 wed	19.20	5769	4615	4615	4036	154	154	154	154	2
S06 weds	19.30/35		? /4958	?/4958		843	843	843	843	Sat R
E06 wed	20.20	4783	3704	3704	3842	154	154	154	154	2
E06 thur	05.00	13930	12210	xxxxx	xxxxx	210	354	xxxx	xxxx	every
E06 thur	06.00	15890	14830	16320	16200	210	354	186	507	every
E06 thur	07.00	xxxxx	xxxxx	18210	18200	xxxx	xxxx	186	507	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	5934	5934	4519	842	579	579	271	2 & 4
S06 thur	19.00/05	7982/6984	5784/5127	5784/5127	3192/3838	349	349	349	349	every
E06 thur	20.30	5948	5189	5189	4836	724	891	891	321	1 & 3
M14 fri	17.00		9126	9126	7/8mHz?	269	269	269	269	1st
M14 fri	18.00		8194	8194	6769	269	269	269	269	1st
G06 fri	19.30	5943	5442	5442	4792	218	947	947	436	2 & 4
E06 fri	21.30	5731	5197	5197	4760	315	634	634	472	1 & 3
S06 sat	16.00/05	8157/6983	8162/7612	8162/7612	7728/6788	134	134	134	134	1,2,3,4
S06 sat	19.00	11438	6942	xxxxx	xxxxx	314	314	314	314	1 & 3
S06 sat	19.00	7847	5317	xxxxx	xxxxx	416	416	416	416	1 & 3
S06 sat	19.30/35	7884/6783	6788/4958	6788/4958	3209/3842	843	843	843	843	1,2,3,4
S06 sat	20.00	6916	4492	5317	3867	416	416	416	416	1 & 3
S06 sat	20.00	9432	5923	xxxxx	xxxxx	314	314	314	314	every
S06 sat	20.30	xxxxx	xxxxx	6942	4859	xxx	xxx	314	314	every
S06 sat	21.00	xxxxx	xxxxx	4492	3237	xxx	xxx	416	416	every
S06 sat	21.30	xxxxx	xxxxx	5923	4024	xxx	xxx	314	314	every
E06 sun	11.20	8025	7471	7471	6mHz?	154	154	154	154	Wed R
E06 sun	12.20	7482	6907	6907	5913	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	11153	11484		
0820				13418	13477	14373	13973	13477	12153	12184		
0840				14418	14877	15873	14873	14877	13453	13384		
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. 6**7**74 5**8**36 4**8**93 = 788

RED indicates E07a (usb mode) with serial number

Revised 7th October 2012

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	General Remarks
x							0450		E11	03	6304 416/00	6304 416/00	5082 416/00	5082 416/00	since 02/10, **last log 10/12**
	x		x				0645		E11	03	10800 517/00	10800 517/00	7840 517/00	7840 517/00	since 07/09, **last log 10/12**
	x			x			0710		E11	03	10221 633/00	10221 633/00	10800 633/00	10800 633/00	since 02/11, **last log 10/12**
	x		x				0745		E11	03	14575 335/00	14575 335/00	16112 335/00	16112 335/00	since 10/11, **last log 10/12**
x			x				0820		E11	03	6814 438/00	6814 438/00	7317 438/00	7317 438/00	since 10/09, **last log 10/12**
x			x				0830		E11	03	10690 649/00	10690 649/00	9446 649/00	9446 649/00	since 01/10, **last log 10/12**
x		x					0900		E11	03	9399 534/00	9399 534/00	9446 534/00	9446 534/00	since 10/09, **last log 10/12**
	x			x			0915		S11A	03	7317 484/00	7317 484/00	7504 484/00	7504 484/00	since 01/10, **last log 10/12**
x			x				1015		S11A	03	16112 475/00	16112 475/00	12530 475/00	12530 475/00	since 04/10, **last log 10/12**
	x			x			1020		S11A	03	9960 426/00	9960 426/00	9610 426/00	9610 426/00	since 02/10, **last log 10/12**
		x			x		1020		S11A	03	5815 221/00	5815 221/00	6433 221/00	6433 221/00	since 01/09, **last log 10/12**
	x						1045		E11	03	13424 576/00	13424 576/00	10800 576/00	10800 576/00	since 01/12, **last log 10/12**
	x	x					1045		E11	03	7449 469/00	7449 469/00	8091 469/00	8091 469/00	since 03/10, **last log 10/12**
x				x			1110		E11	03	13375 95#/00	13375 95#/00	14410 95#/00	14410 95#/00	since 12/11, **last log 10/12**
	x	x	x				1115		M03	03	9150 272/00 (Tue) & 650/00 (Wed/Thu)	9150 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	since 10/09, **last log 10/12**
		x	x			x	1155		E11	03	15915 718/00	15915 718/00	15632 718/00	15632 718/00	since 04/11, **last log 10/12**
			x			x	1320		M03	03	9150 437/00	9150 437/00	4828 437/00	4828 437/00	since 02/11, **last log 09/12**
				x	x		1325		G11	03	5815 299/00	5815 299/00	6433 299/00	6433 299/00	since 03/10, **last log 10/12**
	x			x	x		1535		M03	03	6977 798/00	6977 798/00	5358 798/00	5358 798/00	since 11/10, **last log 08/12**
x						x	1540		E11	03	15915 228/00	15915 228/00	15632 228/00	15632 228/00	since 03/11, **last log 10/12**
				x			1710		E11	03	5194 95#/00	5194 95#/00	6924 95#/00	6924 95#/00	since 11/11, **last log 10/12**
			x				1730		E11	03	9371 416/00	9371 416/00	5082 416/00	5082 416/00	since 03/10, **last log 09/12**
	x					x	1755		G11	03	5815 270/00	5815 270/00	6433 270/00	6433 270/00	since 02/10, **last log 10/12**
	x	**x**					2000		E11C	03	**7867** **757/0000/00**	**7867** **757/0000/00**	4909 757/0000/00	4909 757/0000/00	since 12/11, **last log 10/12**
				x			2000		E11	03	6869 576/00	6869 576/00	576/00, search	576/00, search	since 03/12, **last log 10/12**
				x		x	2000		G11	03	6433 262/00	6433 262/00	4441 262/00	4441 262/00	since 01/11, **last log 10/12**

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	General Remarks
x							0800		G06	01A	6774 215	6774 215	5363 215	5363 215	since 07/10, **last log 10/12**
x							1700	1/2	G06	01A	4639 154	4639 154	3754 154	3754 154	since 04/10, **last log 10/12** yearly changing id
x							1800	1/2	G06	01A	5378 154	5378 154	4467 154	4467 154	since 05/09, **last log 10/12** yearly changing id
			x				1830	2/4	G06	01A	5935 579	5935 579	4519 271	4519 271	since 05/01, **last log 09/12**
				x			1930	2/4	G06	01A	5442 947	5442 947	4792 436	4792 436	since 04/01, **last log 10/12** rpt of Thu 1830Z

S06s schedule - amended - 29th October 2012

Day	time (utc)	jan feb nov dec	mar apr sep oct	may jun jul aug	ID	
Mon	07.00	8530	9220	8221	371	
	07.10	7520	8270	9353	371	
Mon	13.00	8420	9145	10230	831	1 hour earlier
	13.10	10635	11460	12165	831	April to Oct
Tues	06.00		14080	16735	438	
	06.10		12355	15230	438	
Tues	07.00	5250	5760	5430	374	
	07.15	6320	6930	6780	374	
Tues	07.30		6512	7043?	427	
	07.40		8480		427	
Tues	08.00	10265 / ?	11635	14373	352	
	08.10	9135 / 12330	10420	12935	352	
Tues	10.00	6440	6410		893	
	10.10	5660	7340		893	
Tues	12.30	5810	?	7650	278	
	12.40	6770	5805	6125	278	
Tues	15.00	5070	6464	6666	537	
	15.10	6337	7242	7744	537	
Weds	05.30	9435	10835/10285	11435	153	
	05.40	11075	12170/11405	12650	153	
Weds	07.30	7030	7120	7765	481	
	07.40	6305	6415	6815	481	
Weds	08.20	6880	7605	6755	471	
	08.30	7840	9255	5835	471	
Weds	08.30	7335	7335/11854	7335/12110	745	1 hour earlier
	08.40	11830	11830/12140	11830/14977	745	April to Oct
Weds	08.40	9260	9480	10120	328	
	08.50	11415	11040	9670	328	
Weds	10.00	12365	13365	14580	729	
	10.10	14280	14505	16020	729	
Weds	12.30	4580	7620	7545	967	
	12.40	6420	8105	8220	967	
Thurs	08.00	11170	14260	16780	674	
E17z	08.10	9820	12930	12850	674	
Thurs	09.00	12952	12952	12952	167	
	09.10	13565	13565	13565	167	
Thurs	09.30	7865	8650	9255	314	
	09.40	5310	7385	7630	314	
Thurs	12.00	12155	12415	12155	425	
	12.10	10920	14212	14535	425	
Thurs	14.00	5320 / 5410	5410	5320 ?	624	
	14.10	4845 / 6770	6770	4845 ?	624	
Fri	06.00	5460	6340	8720	934	
	06.10	7070	5470	10415	934	
Fri	07.00	7150	7795	7845	196	1 hour earlier
	07.10	8215	8695	9125	196	April to Sept
Fri	09.30	11780	12140	10290	516	
	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 176, 418 and 872 are unknown

Cuban Schedules 0000 to 0700z

Covering 1900 to 0200 EDT in USA

	0000	0100	0200	0300	0400	0500	0600	0700
SUN							***9124(SK)0600***	***5883(P)***
							9063(SK)0630	
						5898(P)	**5800(S)**	

	0000	0100	0200	0300	0400	0500	0600	0700
MON				***6855(P)***	***5117(S)***		*11435(SK)0600*	***5883(P)***
				5800(P)	***6768(S)***		*11532(SK)0630*	
					4035( )			
						5898(P)	**5800(S)**	

	0000	0100	0200	0300	0400	0500	0600	0700
TUE							*9124(SK)0600*	***5883(P)***
							9063(SK)0630	
						5898(P)	**5800(S)**	

	0000	0100	0200	0300	0400	0500	0600	0700
WED							*11435(SK)0600*	***5800(SK)***
							11532(SK)0630	
							9063(SK)0630	
							5898(SK)0630	
						5810(P)(?)	5810(S)(?)	9153(P)

	0000	0100	0200	0300	0400	0500	0600	0700
THU							***9124(SK)0600***	***5883(P)***
							9063(SK)0630	
				10445(P)	**11565(S)**	**5898(P)**	**5800(S)**	

	0000	0100	0200	0300	0400	0500	0600	0700
FRI							***11435(SK)0600***	***5883(P)***
							11532(SK)0630	
						5898(P)	**5800(S)**	**9153(P)**

	0000	0100	0200	0300	0400	0500	0600	0700
SAT							***11435(SK)0600***	***5883(P)***
							11532(SK)0630	
						5898(P)	**5800(S)**	

Cuban Schedules 0800 to 1500z

Covering 0300 to 1000 EDT in USA

	0800	0900	1000	1100	1200	1300	1400	1500
SUN	*5898(S)*							
		10342(P)	9112(S)					

	0800	0900	1000	1100	1200	1300	1400	1500
MON	*5898(S)*							
	8186(SK)	*9063(SK)*						
			7319( )					
		10342(P)	9112(S)			7579(P)	8096(S)	

	0800	0900	1000	1100	1200	1300	1400	1500
TUE	*5898(S)*		*8186(SK)1000*					
	8180(SK)	*8180(SK)*	*7890(SK)1030*					
		5947(SK)0900(?)						
		5930(SK)0930(?)						
						7579(P)	8096(S)	

	0800	0900	1000	1100	1200	1300	1400	1500
WED	*5898(SK)(?)*	*9040(P)*	*9240(S)*					
	8186(SK)	*9063(SK)*						
	9063(S)					7579(P)	8096(S)	

	0800	0900	1000	1100	1200	1300	1400	1500
THU	*5898(S)*	*8180(SK)*	*8186(SK)1000*					
	8180(SK)	*5947(SK)0900*	*7890(SK)1030*					
		5930(SK)0930						
						7579(P)	8096(S)	

	0800	0900	1000	1100	1200	1300	1400	1500
FRI	*5898(S)*							
	9063(S)	10342(P)	9112(S)			7579(P)	8096(S)	

	0800	0900	1000	1100	1200	1300	1400	1500
SAT	*5898(S)*	*9040(P)*	*9240(S)*					
	8186(SK)	*9063(SK)*						
	5883(SK)	*5947(SK)0900*						
		5930(SK)0930						
				4478(?)				

Cuban Schedules 1600 to 2300z

Covering 1100 to 1800 EDT in USA

	1600	1700	1800	1900	2000	2100	2200	2300
SUN								

	1600	1700	1800	1900	2000	2100	2200	2300
MON	*6768(SK)*							
				6875(P)	7554(S)		7519(P)	8009(S)
			8097(P)	8097(S)				

	1600	1700	1800	1900	2000	2100	2200	2300
TUE	*6768(SK)*			*12180(P)*	*13380(S)*			
				6785(P)	7554(S)		7526(P)	8135(S)

	1600	1700	1800	1900	2000	2100	2200	2300
WED	*6768(SK)*							
				6785(P)	7554(S)		7519(P)	8009(S)
			8097(P)	8097(S)		6932(P)	6854(S)	

	1600	1700	1800	1900	2000	2100	2200	2300
THU	*6768(SK)*			*12180(P)*	*13380(S)*			
				6785(P)	7554(S)		8009(S)	8135(S)
						6932(P)	6854(S)	

	1600	1700	1800	1900	2000	2100	2200	2300
FRI	*6768(SK)*							
				6785(P)	7554(S)			
							7519(P)	8135(S)
			8097(P)	8097(S)				

	1600	1700	1800	1900	2000	2100	2200	2300
SAT								
				6785(P)	7554(S)			
			8097(P)	8097(S)				

Notes: Schedules in MCW mode indicated in shaded cell
V02a schedules indicated in *italic font*
M08a schedules indicated in normal font
Primary or first schedule indicated with (P)
Secondary, second or repeat schedule is indicated with (S)
All schedules normally begin on the hour
Frequencies listed as ( ) denote primary or secondary schedule not yet determined
Frequencies listed without ( ) denotes a possible schedule
Schedules with (?) have not been heard in over two months

SK01: At present SK01 seems to be using exclusively RDFT Mode

Revised 30/10/2012

XPA Polytones

September2012

XPA_c [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 0600z 10359kHz 2. 0620z: 11559kHz 3. 0640z: 13559kHz

ID355 Mode: USB **[Wed/Sat]**

ID/msg/serial no/gc/dk/end grp

01Sat	355 1 00989 00315 13788 22066	[5m40s]
05Wed	355 000 04964 00001 00000 10140	[2m27s] BR
08Sat	355 000 01787 00001 00000 10140	[2m26s]
12Wed	355 1 00453 00229 62631 75305	[4m46s]
15Sat	355 1 00453 00229 62631 75305	[4m46s]BR
19Wed	355 1 00275 00067 81703 33510	[3m08s]
22Sat	355 1 00275 00067 81703 33510	[3m08s]
26Wed	355 1 00944 00181 51994 75065	[4m15s]
29Sat	355 1 00944 00181 51994 75065	[4m15s]

XPA e [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 1900z 11576kHz 2. 1920z: 10476kHz 3. 1940z: 9276kHz

ID542 Mode: USB **[Tue/Thu]**

ID/msg/serial no/gc/dk/end grp

04Tue	542 000 05628 00001 00000 10140	[2m26s]
06Thu	542 000 03974 00001 00000 10140	[2m26s]
11Tue	542 1 00281 00307 40578 44735	[5m33s]
13Thu	542 1 00281 00307 40578 44735	[5m33s]
18Tue	542 000 09763 00001 00000 10140	[2m26s]
20Thu	542 000 04848 00001 00000 10140	[2m26s]
25Tue	542 1 00137 00231 25260 44665	[4m48s]
27Thu	542 1 00137 00231 25260 44665	[4m48s]

XPA c Morning 0600z Schedule

Usually strong signals across this schedule

XPA e Evening 1900z schedule

A variable schedule where signal strength is concerned, usually one slot being useable.

October 2012

XPA c [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 0600z 10868kHz 2. 0620z: 12168kHz 3. 0640z: 13368kHz

ID813 Mode: USB **[Wed/Sat]**

ID/msg/serial no/gc/dk/end grp

03Wed	813 1 00750 00165 81312 32236	[4m08s] BR
06Sat	813 1 00750 00165 81312 32236	[4m08s] BR
10Wed	813 000 05837 00001 00000 10140	[2m26s] BR
13Sat	813 000 03997 00001 00000 10140	[2m26s]
17Wed	813 1 00965 00199 50746 52173	[4m28s]
20Sat	813 1 00965 00199 50746 52173	[4m28s]
24Wed	813 1 00505 00093 44057 41627	[3m21s]
27Sat	813 1 00505 00093 44057 41627	[3m21s]
31Wed	813 000 04519 00001 00000 10140	[2m26s]

XPA c Morning 0600z Schedule

Good strong signals across the schedule

XPA e [MFSK-20 Russian Intelligence Multitone System] 10 bd

1. 1900z 9362kHz 2. 1920z: 8062kHz 3. 1940z: 7462kHz

ID304 Mode: USB **[Tue/Thu]**

ID/msg/serial no/gc/dk/end grp

02Tue	304 1 00967 00169 03255 31711	[4m08s]
04Thu	304 1 00967 00169 03255 31711	[4m08s]
09Tue	304 1 00825 00243 87690 03335	[4m55s]
11Thu	304 1 00825 00243 87690 03335	[4m55s]
16Tue	304 1 00650 00081 57170 74264	[3m15s]
18Thu	304 1 00650 00081 57170 74264	[3m15s]
23Tue	304 000 05673 00001 00000 10140	[2m26s]
25Thu	304 000 05673 00001 00000 10140	[2m26s]
30Tue	304 000 04567 00001 00000 10140	[2m26s]

XPA e Evening 1900z schedule

Surprisingly constantly fair signals across the schedule.

SPECIAL MATTERS:

Operation Jallaa: 0

MESSAGES:

RELEVANT WEBSITES

ENIGMA 2000 Website:	http://www.enigma2000.org.uk
Frequency Details can be downloaded from:	http://www.cvni.net/radio/
More Info on 'oddities' can be found on Brian of Sussex' excellent web pages:	http://www.brogers.dsl.pipex.com/page2.html
Time zone information:	http://www.timeanddate.com/library/abbreviations/timezones/
Encyclopedia of Espionage, Intelligence, and Security	http://www.espionageinfo.com/

EyeSpyMag! http://www.eyespymag.com