ENIGMA 2000 NEWSLETTER

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North Korean Embassy
Berlin
[Thanks Ivan!]

ISSUE 80
January 2014

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A happy and prosperous new year to all our readers.

Morse Station Roundup.

M01 As always, never a dull moment with this station. We have experienced the usual range of techniques & errors employed by the stations Ops. There have also been some 'text-book' perfect sendings that have been a pleasure to copy, a welcome break from the usual challenging transmissions.

We also have a good number of M01b logs, and a M01c, caught once again by Jean Paul (JPL)

M03 A good variety of logs this time from a number of different monitors. Good work from all involved, Thanks Guys.

M08a Our man in America, AnonUS has once again provided us with a synopsis of continuing M08a activity, along with a comprehensive set of logs. In addition he draws attention to some interesting sequences noted in the call-ups. Co-incidence or is there something else going on here?

M12 Thomas (tiNG) sends a log of ID 941 which has filled a gap in the Thu / Sun 1010z schedule, while Richard's August find of ID 725 continues to appear at 1600z on Thursdays.

In December, some unusual pairing of scheds was observed. Unconnected IDs, previously sending single msgs, were now repeating msgs sent a day or so earlier. All other scheds seem to be stable at this time.

M14 Once again, a good selection of logs. Both Guy (GD) & Richard (RNGB) comment on the change from the previously regular 15 group msgs, to 20 group msgs. This looks to be a significant change to the known M14 transmissions.

M23 When Fritz (FN) found 8030kHz still active with the '246' call, we thought we might be in for a busy month, however this continued for just one more day before it ceased.

In December, the station returned - this time in the middle of the 80m amateur band with a '787' call, logged by Paul (PLdn), and a // freq was found nearby by Tony (Topol). This sched has continued daily with two 35min transmissions on two // freqs. This must be important to someone!

M24 Some excellent intercepts of this often elusive station this time, largely due to some admirable work from Richard (RNGB).

M45 No transmissions have been heard from M45, or its voice sister station S21 since the end of October. We are monitoring this situation with interest.

M89 In the last newsletter we featured an unusual exchange between Ops. where the English phrase 'Who are you?' was sent several times. Jean-Paul (JPL) has managed to catch another similar exchange, where the phrase was repeated four times in a short exchange.

Jean-Paul features much 'chatter' on a variety of freqs along with some new, and possibly short-lived call signs. This increased activity is usually a sign that the units are engaged in exercises, usually conducted twice a year.

M94 A welcome update on the M94 / V24 transmissions from Token from the Mojave desert. These transmissions are generally unheard in Europe

M97 A more successful period of monitoring of this irregular station. The good news is that the station is now audible in Europe, although reception in England is still quite variable, however the Twente online receiver is a good, reliable way of checking in this station.

We have a synopsis & update from Token, along with his check logs of the stations recent activity, along with the latest logs.

The station is still sending msg SD 84 - a msg first aired on Fri 09 August!

Beacons Just a few beacon reports this time to round off the Morse section. We are quite happy to feature these logs if you would like this section to continue.

Hybrid Station

HM01

Mostly business as usual for HM01 except for the 3rd week in November where the 0500-1000z regualar schedules were replace with a single frequency which was used continually for the full 5 hours as far as could be discerned. A similar thing happend mid-October but things remained normal throughout December.

Items of interest during the past two months include numerous repeated "Uno" and "Dos" on occasion. Windows XP "dings" heard and one case where the Radio Havana Cube feed was put up in place of the RDFT for a short while.

Voice Stations Round up

E06 PoSW remarks on a change in the Thursday and Friday evening E06 and G06 transmissions, in November both had group counts other than "15" which had been the norm for several years

E07 Business as usual with this Family 3 station; however certain schedules not reported may well be due to propagation rather than no surveillance of the schedule

E17z Continues much as usual, signal strength and numeral pronunciation continuing to provide a matter for discussion. More monitors for E17z please.

E25 Reports commensurate with this stations operating rationale. It's activity appearing to wane since the problems plaguing Syria; perhaps an indication of the transmitter

G06 This reminder of Cold War stations is continuing as expected but with the usual 15group offering on 2/4 Thursdays and 1/3 Fridays changing from 15 to 20 groups.

S06/S06c/S06s

Very active as usual
PoSW also noted under the heading of "unusual" was the Saturday 2000 + 2100 UTC S06 "319" which transmitted a "full message" with a group count of "40" on 16-November,

S21 No show – see also M45 [Is this curtains for S21]?

V02a Cuban desk reports: Rumors of V02a's demise have been greatly exaggerated with 4 appearences noted in the past two months. All of these were apparently because the V02a was put up on the 2000z M08a frequency. Attempts to locate the actual frequency of the V02a transmission have failed so far.

V07 Coverage of this station by our Argentine monitor [Tnx] and 'T' with expected scheduled operation but not audible in Great Britain or EU

V21 A busy two months for "The Babbler" he was even up on Christmas Day. Signals are almost always very weak and tend to disappear into the noise on occasion. Transmissions switched from 1300z to 1400z when the clocks were changed backwards in the USA
Transmissions on 6529kHz and 5637kHz consist mainly of a SS/OM counting upwards from 1 in groups of ten pausing at every multiple of 10 unless otherwise stated. Transmissions on 6625kHz are much rarer and are generally a SS/YL counting or reading out groups of numbers. In the logs below each number refers to the highest count before the operator returned to 1 (or another number on occasions). <u>All transmissions are a live voice</u>
Thanks to our US monitors with 'The Babbler!'

<u>Polytones</u>

Lots of activity with this pseudo digital signal. The Wednesday/ Saturday XPA c continues with little problem and usually a more than adequate signal The Tuesday/Thursday XPA e has performed as expected with weak or very weak signals competing with the already occupied frequencies of the second and third slots in the 1900z schedule. This produces many NRH or BCQRM5 reports expected of this schedule, the transmission not intended for GB or West Eu ears. During late December 2013 it was nigh impossible to write anything other than NRH in the log.

XPA2 m, p, r are continuing with more than adequate signals but more null messages than expected. XPA2 m with its generally very strong [into GB] has suffered signal failure with the loss of signal during the first few seconds of the tuning guide/run in.
XPA2 p continues with strong signals and a mass of null offrings whilst XPA2 r provides a strong signal for Friday and Sauturday/

The XPA2 u [unclassified] seems audible to RNGB and is noted to have been changed from E07.

<u>Report from ENIGMA2000's German Branch (E2Kde) and the X06 team</u>

Hallo liebe Freunde und Kollegen von E2Kde und dem X06 Team (Hello dear friends and colleagues of E2Kde and the X06 team)

At the end of 2013, here is my last E2Kde report this year, beginning with more news from the German speaking scene, followed by the X06 logs as usual: Buzzer wins another price!

On November 25th, there was another radio play contest, this time in Vienna/Austria, but different to the festival in Berlin in September (see EN79), that's why I was not there, only the author of our piece. It was no public price like in Berlin, but the jury consists in experts like students of the Vienna University. This jury gave two 2nd price but no 1st price, so that we have to "divide" our price with another lady, who made an interesting voice collage of people, who speak Austrian dialects, underlined with music. It was also different, that this time a money price was given to the winners, so no present like the microphone we won in Berlin in September. This event was successful for us, especially for Mrs. Scheld, the author of our radio play/feature "Buzzer".

X06 Mazielka (1C) logs section

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Date     Day UTC       Freq  Scale  Monitor     Comments
20131101 Fri 1035-1042 16219 324615 RNGB        Monitored in progress, G
20131101 Fri 1042-1044 14501 361245 RNGB        Monitored i. p., M755
20131101 Fri 1046-1047 14824 625413 RNGB        Monitored i. p., M756
20131110 Sun 1123-1124 14865 261453 Spectre/UK  Fair, BCQRM, QSB2, M757
20131114 Thu 1234      13520 612534 MCO/US      Alert 2.1 New freq, G
20131114 Thu 1246      17510 612534 MCO         2.2 New freq, G
20131121 Thu 1254      18575 352416 MCO         G
20131227 Fri 0900      10630 123456 Kopf        Very long X06c (over 1h!)
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Again nice stuff. Thanks to all the contributors for their logs in 2013, next year we will continue.

I wish you all the best for 2014, when E2Kde will be 10 years old! As usual I say "Auf Wiedersehen" and "Good-bye"

Jochen Schäfer, KopfE2Kde and X06 Teamkopf

<u>Morse Stations</u>

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.

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

<u>November 2013:</u>

4490	2000z	05 Nov	'197' 310 30 =	21928...	...LG 24255 =	Good, slow. Mostly sent with no spacing	BR/CB	TUE

	2000z	07 Nov	'197' 298 30	74844...	...LG 83545	Strong, fast. Disjointed with many errors	BR/CB	THU
	2000z	12 Nov	'197' 904 30 = =	83624...	...LG 16875 = =	Fair, med-fast. Numerous errors	BR/tiNG	TUE
	2000z	14 Nov	'197' 379 30	23229...	...LG 21421	Weak/Fair, med-fast. Good CW. Error grp24	BR	THU
	2000z	19 Nov	'197' 228 30 = =	32878...	...LG 99361 = =	Fair, med-fast. Excellent CW. 00 at end	BR	TUE
	2000z	21 Nov	'197' 719 30 = =	88042...	...LG 28045 = =	Weak, fast. With errors	BR/CB	THU
	2000z	26 Nov	'197' 012 30 = =	20690...	...LG 17385 = =	Weak, med-fast. Good CW. No noted errors	BR/HFD	TUE
	2000z	28 Nov		NRH			BR	THU
5320	1800z	05 Nov	'197' 221 30	91840...	...LG 21876	Fair, slow. Errors in grps04 & 05	BR	TUE
	1800z	07 Nov	'197' 338 30	33849...	...LG 77534	Good, fast. Staccato CW with errors	BR	THU
	1800z	12 Nov	'197' 697 30	47512...	...LG 78122	Good CW. No noted errors	BR/CHPA/tiNG	TUE
	1800z	14 Nov	'197' 181 30	20442...	...LG 75733	Strong. slow. Mostly no spacing. Many errors	CB/HFD	THU
	1800z	19 Nov	'197' 345 30 = =	23544...	...LG 34266 = =	Strong, med-fast. Excellent CW. No errors	BR	TUE
	1800z	21 Nov	'197' 512 30 = =	62740...	...LG 97420 = =	Weak, fast. Single DK & GC. With errors	BR	THU
	1800z	26 Nov	'197' 739 30 = =	56673...	...LG 02691 = =	Fair, med-fast. Good CW. No noted errors	BR/GD	TUE
	1800z	28 Nov	'197' 621 30 = =	. . . .	...LG 85422 = =	Weak, v.fast. Difficult copy with QSB	BR	THU
5465	0703z	03 Nov	'197' 703 30 = =	1860	...LG 25894 = =	Fair, fast. Many numbers replaced by periods	BR	SUN
	0700z	10 Oct	'197' 392 30 = =	29878...	...LG 00948 = =	Fair, med-fast. No errors	BR	SUN
	0700z	17 Nov	'197' 323 30	13379...	...LG 55569	Weak, v.fast. Good CW.	BR	SUN
	0700z	24 Nov	'197' 188 30 = =	64726...	...LG 18308	Fair, fast. Poor copy. Possible errors noted	BR/HFD	SUN
5810	1500z	09 Nov	'197' 115 30	56273...	...LG 48873	Fair, fast. Good CW. No errors.	BR	SAT
	1500z	16 Nov	'197' 453 30 = =	56347...	...LG 91237 = =	Weak, v.fast. Long call-up. No noted errors	BR	SAT
	1500z	23 Nov	'197' 338 30	. . . .	...LG 48415 = =	Weak, fast. Poor copy with possible errors	BR/HFD	SAT
	1500z	30 Nov	'197' 019 30 = =	. . . .	...LG 48460 = =	Weak, fast. Poor copy. Errors, one corrected	BR	SAT

December 2013:

4490	2000z	03 Dec	'197' 621 30 = =	06351...	...LG 66619 = =	Good, med-fast. Perfect sending!	BR	TUE
	2000z	05 Dec	'197' 177 30 = =	67074...	...LG 90594 = =	Good, v.fast. Two noted errors	BR	THU
	2000z	10 Dec	'197' 348 30 = =	68278...	...LG 09675 = =	Fair, fast. Excellent CW. Error in Grp15	BR	TUE
	2000z	12 Dec	'197' 712 30 = =	80329...	...LG 33795 = =	Strong, fast. Excellent CW - No errors	BR/CB	THU
	2000z	17 Dec	'197' 763 30 = =	07024...	...LG . 7668 = =	Weak, med-fast. Poor copy. Errors noted	BR	TUE
	2000z	19 Dec	'197' 412 30 = =	06197...	...LG 17387 = =	Strong, v.fast. Good CW - Error in Grp11	BR	THU
	2000z	24 Dec	'197' 138 30 = =	77386...	...LG 22212 = =	Fair, med-fast. Excellent CW - No errors	BR	TUE
	2000z	26 Dec	'197' 719 30 = =	47380...	...LG 33022 = =	Good, fast. Excellent CW with errors	BR	THU
5320	1800z	03 Dec		NRH			BR/CB	TUE
	1800z	05 Dec	'197' 984 30 = =	29364...	...LG 35651 = =	Weak, v.fast. Excellent CW	BR	THU
	1800z	10 Dec	'197' 479 30 = =	54324...	...LG 42827 = =	Weak, fast. Excellent CW with errors	BR	TUE
	1800z	12 Dec	'197' 831 30 = =	84534...	...LG 94085 = =	Good, fast. Excellent CW - No errors	BR/CB	THU
	1800z	17 Dec	'197' 228 30 = =	65859...	...LG 10554 = =	Fair, med-fast. Numerous errors	BR/CB	TUE
	1800z	19 Dec	'197' 318 30 = =	67655...	...LG 80252 = =	Good, v.fast. Good CW with errors	BR	THU
	1800z	24 Dec	'197' 218 30 = =	98517...	...LG 77509 = =	Fair, med-fast. Excellent CW - No errors	BR	TUE
	1800z	26 Dec	'197' 513 30 = =	. . . .	...LG 76447 = =	Weak, fast. Poor copy, weak with QSB	BR	THU
5465	0700z	01 Dec	'197' 384 30 = =	95518...	...LG 17873 = =	Strong decreasing to weak over msg.	BR	SUN
	0700z	08 Dec	'197' 418 30 = =	85760...	...LG 24322 = =	Fair, med-fast. Perfect sending!	BR	SUN
	0700z	15 Dec	'197' 459 30 = =	81281...	...LG 83662 = =	Good, fast. Two noted errors. Excellent CW	BR	SUN
	0700z	22 Dec	'197' 239 30 = =	60555...	...LG 51198 = =	Good, fast. Excellent CW - no errors	BR	SUN
	0700z	29 Dec	'197' 271 30 = =	99276...	...LG 23367 = =	Fair, med-fast. Numerous errors	BR	SUN
5810	1500z	07 Dec	'197' 575 30 = =	20895...	...LG 73031 = =	Fair, Fast. Many errors.	BR	SAT
	1500z	14 Dec	'197' 783 30 = =	60555...	...LG 01026 = =	Good, fast. One noted error. Excellent CW	BR	SAT
	1500z	21 Dec		NRH			BR	SAT
	1500z	28 Dec	'197' 192 30 = =	19271...	...LG 53852 = =	Fair, med-fast. Difficult copy due to QRM	BR	SAT

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

M01b

2485// 3160	2042z	28 Nov	'382' 389 33 = 02813...	HFD	THU
2405	2110z	22 Nov	'610' 389 33	GD	FRI
3160	1942z	12 Dec	'382' 781 32	GD	THU
2427//3205	2015z	25 Nov	'375' 389 33 = 02813... //3205	GD/HFD	MON
2470//3545	1932z	28 Nov	'910' 389 33 = 02813...	HFD	THU
2654	2002z	22 Nov	'866' 389 33	GD	FRI
2655//3197	2002z	29 Nov	'866' 389 33 = 02813... 3197kHz weak, QRM IPA Ancona R, I,	HFD	FRI
3180	2110z	15 Nov	'610' ??? 33 = 02813...	HFD	FRI
	2110z	27 Dec	'610' 781 32 = 44900 … 37137	Gert	FRI
3519	1910z	25 Nov	'853' 389 33 = 02813...	GD/HFD	MON
3545	1932z	12 Dec	'910' 781 32	GD	THU

5938	1605z	28 Nov	Blocked by Romanian DRM	HFD	THU

M01b 3180kHz 2110z 27 Dec 13

610 (R4) 781 781 32 32 = =

44900 21663 13905 50036 09949 15613 70462 30349 32510 67967
20262 68214 64163 59452 35074 15876 65025 39150 16958 30821
81952 66964 57360 43998 08613 41783 68067 35433 97290 26177
10258 37137 = =

781 781 32 32 000

Courtesy Gert

M01c

14628	0941z (IP)	15 Dec	(In tfc)	(Remote tuner Russia)	JPL	SUN

94819 90328 41 . 81 48918 92826 76699 4910. 77429 75658 42587
13650 43646 05426. . 6LC 19736 64474 60247 98113 94983 036.5 72342
01937 92422 64703 BT

151 30 (0944z)

111 92826 75658 (0945z)
111 42587 94983 (0947z)
111 000 (0947z) (Hand sent)

M03 III ICW, some CW

4505	1320z	25 Nov	543/00		RNGB	MON
	1320z	09 Dec	543/00		RNGB	MON
4828	1115z	05 Nov	272/00 (very weak)		RNGB	TUE
	1115z	14 Nov	650/00		HFD	THU
	1115z	10 Dec	272/00 (Weak)		RNGB	TUE
	1115z	11 Dec	650/00		FN	WED
	1320 - 1323z	03 Nov	437/00		tiNG/HFD	SUN
	1320z	10 Nov	437/00		FN	SUN
5358	1535z	05 Nov	798/00		RNGB	TUE
	1535z	12 Nov	798/00		CHPA	TUE
	1535 - 1538z	16 Nov	798/00		tiNG	SAT
	1535z	19 Nov	798/00		CHPA	TUE
	1535z	26 Nov	792/37 = 15148...		HFD	TUE
	1535 - 1538z	03 Dec	798/00 Very Strong		Topol	TUE
	1537 - 1552z	10 Dec	795/34 Very Strong - (See Transcript below)	(Remote tuner Finland)	JPL	TUE
	1535z	17 Dec	798/00		RNGB	TUE
13911	1420z	15 Nov	879/00		HFD	FRI

M03 5358kHz 1537z 10 Dec 13

795/34 (Cont'd – 1537z) BT BT (1538z)

23177 75534 72488 74701 93668 46431 63692 34902 12771 89732
99162 00581 53127 27456 66815 11368 50018 60108 77469 43211
41168 65158 39399 59267 05777 31006 41736 01901 04150 94340
18835 44304 06765 50033 BT BT

795/34 (x5) BT BT (1547z)

23177 75534 72488 74701 93668 46431 63692 34902 12771 89732
99162 00581 53127 27456 66815 11368 50018 60108 77469 43211
41168 65158 39399 59267 05777 31006 41736 01901 04150 94340
18835 44304 06765 50033 BT BT

T T T (1552z)

(Groups in repeated message NOT QSZ) *Courtesy JPL*

M03c (Stutter groups)
No reports

M03d
No reports

M03e
No reports

M08a XVIII ICW / CW, some MCW

AnonUS brings us another excellent comprehensive list of M08a activity with synopsis;

M08a remains with us although a little sporadic. All of the known time slots have been heard except for 2300z on Wednesday, which hasn't been heard since July 24th. We had missed a lot of call-ups over the past few months as the transmissions were seeming to start early. This was assumed to be due to the Cubans' clocks being wrong, **but we can confirm that all transmissions are systematically beginning 5 minutes before the top of the hour**. Be sure to tune in early if you want to catch the call-ups.

Of note during the past two months:- The 1400z transmission on 17 Dec appeared to have some sequencing going on with its call-ups. The 2300z TX the same day also had call-ups with repeating sequences, as did the 1400z transmission the following day.

7554	2000z	12 Oct	[12345 67890] Repeated continuously at one point 67890 67890 then back to 12345 67890 rptd.	AnonUS	SAT

November 2013:

7554	2000z	04 Nov	Up late in progress	AnonUS	MON
	2000z	06 Nov	[70162 03401 16722]	AnonUS	WED
	2000z	08 Nov	[02341 15662 28001]	AnonUS	FRI
	2000z	11 Nov	[41242 54561 77001]	AnonUS	MON
	2000z	13 Nov	[21642 34071 47402]	AnonUS	WED
	2000z	14 Nov	[26521 30841 43272]	AnonUS	THU
	2000z	21 Nov	[02342 15671 28001] Early start ~ 1955z	AnonUS	THU
	2000z	22 Nov	[----- 15662 -----]	AnonUS	FRI
	2000z	28 Nov	[84051 07471 11712]	AnonUS	THU
8072	1400z	01 Nov	In progress at 1400z	AnonUS	FRI
8096	1400z	14 Nov	[----- ----- 35541] Up late ended at 1430z with AR AR AR SK	AnonUS	THU
	1420z	20 Nov	Up late as it was not present at 1405z	AnonUS	WED
	1400z	26 Nov	[30012 43331 56662]	AnonUS	TUE
8135	2300z	01 Nov	Characteristic Cuban hum on this frequency but no Morse heard.	AnonUS	FRI

December 2013:

7554	2000z	03 Dec	[33831 46252 50581]	AnonUS	TUE
	2000z	05 Dec	[23621 46152 50471]	AnonUS	THU
	2000z	10 Dec	Up early, found in progress	AnonUS	TUE
	2000z	12 Dec	[87672 01111 13322]	AnonUS	THU
	2000z	17 Dec	[47042 ----- -----]	AnonUS	TUE
	2000z	19 Dec	[00511 13842 36261]	AnonUS	THU
	2000z	25 Dec	[24332 46062 50401]	AnonUS	WED
8009	2300z	02 Dec	No copy as TX was being stepped on by a digital transmission. First time heard since 15 Oct!	AnonUS	MON
	2300z	16 Dec	Found in progress - no call-ups.	AnonUS	MON
8096	1400z	03 Dec	Up late, found in progress at 1420z	AnonUS	TUE
	1400z	04 Dec	Up late, found in progress at 1420z	AnonUS	WED
	1400z	05 Dec	Found in progress at 1420z	AnonUS	THU
	1400z	12 Dec	[75021 86651 00082]	AnonUS	THU
	1400z	13 Dec	Up late, missed call-ups.	AnonUS	FRI
	1400z	16 Dec	[00352 13681 26012]	AnonUS	MON
	1400z	17 Dec	[34602 46021 60352]	AnonUS	TUE

(Probably coincidence but 4602 appears in call-ups 1 and 2, shifted left one digit, from call-up 1 to 2. The sequence 60 shifts left 1 digit from call-up 1-2 and then from 2-3).

	1400z	18 Dec	[52522 ----- -----] Present but very weak Note repeating sequence in call-up 5252 (see 2300z on 17 Dec)	AnonUS	WED
	1400z	19 Dec	[88451 02771 15212]	AnonUS	THU
	1400z	20 Dec	[26602 38032 42351]	AnonUS	FRI
	1400z	23 Dec	[20202 42832 55261]	AnonUS	MON
8135	2300z	10 Dec	Up early, found in progress	AnonUS	TUE
	2300z	17 Dec	[85852 18181 22512] Interesting day for sequences call-ups 1 and 2 8585 and 1818 respectively.	AnonUS	TUE
	2300z	20 Dec	[87811 61151 74472]	AnonUS	FRI
	2300z	26 Dec	[45152 58571 61811]	AnonUS	THU

Other M08a Logs received;

7554	2000 - 2032z	03 Dec	3msgs MCW Strong	madcat	TUE
	2000z	16 Dec	[-----, 60772, 74702] QSA3	HT	TUE

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.

Unusual Pairings
Some unusual pairings were noted in the December M12 logs. It is not unusual for some M12 msgs to be repeated within a regular sched. Usually this is achieved by using the same ID for the repeat sched, although sometimes the freqs may be changed (an example is the Mon 1300z & Wed 1500z sched).

What makes these pairings unusual is that they have not been observed before, and that they use different IDs. The IDs 257 & 124 are known to replace each other from time to time within scheds, but have not previously been observed to have used different IDs for a repeat msg. Certainly these same scheds in 2012 were not repeating msgs.

Freq	Time	Date	ID	DK	GC	Day
5312/4512/4012	2200/20/40z	04 Dec	350	6809	91	WED
5784/7584/9184	0600/20/40z	07 Dec	751	6809	91	SAT
5312/4512/4012	2200/20/40z	11 Dec	350	0 0 0		WED
5784/7584/9184	0600/20/40z	14 Dec	751	0 0 0		SAT
5312/4512/4012	2200/20/40z	18 Dec	350	931	75	WED
5784/7584/9184	0600/20/40z	21 Dec	751	931	75	SAT

(The 11 & 14 Dec transmissions were null msgs)

Freq	Time	Date	ID	DK	GC	Day
9176/7931/6904	1900/20/40z	02 Dec	257	362	97	MON
10343/9264/8116	1800/20/40z	05 Dec	124	362	97	THU
9176/7931/6904	1900/20/40z	09 Dec	257	800	119	MON
10343/9264/8116	1800/20/40z	12 Dec	124	800	119	THU
9176/7931/6904	1900/20/40z	16 Dec	257	???	???*	MON
10343/9264/8116	1800/20/40z	19 Dec	124	???	???*	THU

* (The 16 & 19 Dec Transmissions unusable due to poor sigs on 19 Dec)

November 2013:

4617/5317/---	0530/0550/0610z	04 Nov	638 000	FN	MON
	0530/0550/0610z	11 Nov	638 000	FN	MON
	0530/0550/0610z	25 Nov	638 000	FN	MON
5429/4629/4029	2200/20/40z	06 Nov	460 000	FN	WED
	2200/20/40z	13 Nov	460 000	FN	WED
	220020/40z	27 Nov	460 000	FN/HFD	WED
5884/6884/---	0730/0750/0810z	07 Nov	888 000	FN	THU
	0730/0750/0810z	14 Nov	888 000	FN/HFD	THU
5884	0730z	21 Nov	888 000	CHPA	THU
8047/6802/5788	1700/20/40z	06 Nov	463 1 (7975 97) 78795...	FN	WED
	1700/20/40z	13 Nov	463 1 (7433 62) 38419...	FN	WED
	1700z	27 Nov	463 1 (4831 57) 33413	FN	WED
5789	1741 - 1745z	27 Nov	463 1 (4831 57) (In call-up) (Remote tuner Siberia)	JPL	WED
8112/7552/6792	1500/20/40z	06 Nov	106 1 (4632 287) 11293... Repeat of 04 Nov 1300z	FN	WED
	1500/20/40z	27 Nov	106 1 (7345 157) 68219... Repeat of 25 Nov 1300z	FN/HFD	WED
9162/8062/7462	1310/30/50z	02 Nov	104 1 (8595 129) 58821...	FN	SAT
	1310/30/50z	07 Nov	104 000	FN/HFD	THU
	1310/30/50z	09 Nov	104 000	FN	SAT
	1310/30/50z	14 Nov	104 000	FN	THU
	1310/30/50z	23 Nov	104 000	FN	SAT
	1310/30/50z	28 Nov	104 1 (5518 113) 03471...	FN	THU
9176/7931/6904	1700/20/40z	04 Nov	257 1 (5005 72) 95149...	FN	MON
	1800/20/40z	04 Nov	257 1 (6549 60) 08123...	FN	MON
	1900/20/40z	04 Nov	257 1 (6885 105) 70888...	FN	MON
	1700/20/40z	07 Nov	257 1 (8737 79) 44962...	FN	THU
	1900/20/40z	07 Nov	257 1 (1663 65) 08923...	FN	THU
	1700/20/40z	11 Nov	257 1 (2913 74) 67153...	FN	MON
	1800/20/40z	11 Nov	257 1 (7733 69) 39549...	FN	MON
	1900/20/40z	11 Nov	257 1 (7911 117) 30493....	FN	MON
	1700/20/40z	14 Nov	257 1 (2707 91) 51174...	FN	THU
	1900/20/40z	14 Nov	257 1 (1263 44) 05275...	FN	THU
	1700/20/40z	25 Nov	257 1 (8205 70) 46216...	FN	MON
	1800/20/40z	25 Nov	257 1 (9075 65) 95737...	FN	MON
	1900/20/40z	25 Nov	257 1 (5904 112) 47598...	FN	MON
	1700/20/40z	28 Nov	257 1 (6255 98) 59369...	FN	THU
	1900/20/40z	28 Nov	257 1 (7837 61) 95512... V weak sig 9176kHz - Weak sig 7931kHz	FN	THU

9187/8057/7697	1300/20/40z	04 Nov	106 1 (4632 287) 11293...	CHPA/FN	MON
	1300/20/40z	11 Nov	106 1 (4227 179) 78580...	FN	MON
	1300/20/40z	25 Nov	106 1 (7345 157) 68219...	FN/HFD	MON
10343/9264/8116	1830/1850/1910z	05 Nov	124 1 (7820 57) 86384...	FN	TUE
	1700/20/40z	07 Nov	124 1 (3969 70) 72956...	CHPA/FN/HFD	THU
	1800/20/40z	07 Nov	124 1 (8326 110) 81544...	FN/HFD	THU
	1830/1850/1910z	12 Nov	124 1 (1339 50) 70717...	CHPA/FN	TUE
	1700/20/40z	14 Nov	124 1 (9306 76) 40375...	FN	THU
	1800/20/40z	14 Nov	124 1 (4905 102) 18234...	FN	THU
	1700/20/40z	28 Nov	124 1 (8633 80) 33429 ... V weak sig 10343kHz - Weak sig 9264kHz	FN	THU
	1800/20/40z	28 Nov	124 1 (362 97) 35084... V weak sig 10343kHz - Weak sig 9264kHz	FN	THU
11435/10598/9327	1600/20/40z	04 Nov	938 1 (8729 102) 12807...	FN	MON
	1830/1850/1910z	06 Nov	938 1 (2581 52) 84390... QRM from OTHR on 9327kHz	FN	WED
	1600/20/40z	11 Nov	938 1 (7144 113) 63712...	FN	MON
	1830/1850/1910z	13 Nov	938 1 (9804 65) 49825...	FN	WED
	1600/20/40z	25 Nov	938 1 (3088 112) 06109.... Weak signal on 10598kHz	FN/HFD	MON
13386/12189/11491	1600/20/40z	07 Nov	725 1 (4818 101) 36461... Richard's (RNGB) finding is still up!	FN	THU
	1600/20/40z	14 Nov	725 1 (5186 109) 90831...	FN	THU
	1600/20/40z	28 Nov	725 1 (2168 115) 70899...	FN	THU
15969/17479/18169	1010/1030/1050z	17 Nov	941 000 New ID	tiNG/HFD	SUN
	1010/1030/1050z	28 Nov	941 1 (9511 93) 03697...	FN	THU

December 2013:

4457/5157/---	0530/0550/0610z	02 Dec	417 000	FN	MON
	0530/0550/0610z	09 Dec	417 000	FN	MON
	0530/0550/0610z	16 Dec	417 000	FN	MON
	0530/0550/0610z	23 Dec	417 000	FN	MON
5284/5784/---	0730/0750/0810z	05 Dec	277 000	FN	WED
	0730/0750/0810z	12 Dec	277 000	FN	THU
	0730/0750/0810z	19 Dec	277 000	FN	THU
5312/4512/4012	2200/20/40z	04 Dec	350 1 (6809 91) 02558...	FN	WED
	2200/20/40z	11 Dec	350 000	FN	WED
	2200/20/40z	18 Dec	350 1 (931 75) 06753....	FN	WED
5784/7584/9184	0600/20/40z	07 Dec	751 1 (6809 91) 02558...	FN	SAT
	0600/20/40z	21 Dec	751 1 (931 75) 06753... Repeat of WED 2200z sked to "350")	FN/westt1us	SAT
7509/6909/5709	1500/20/40z	04 Dec	214 1 (939 209) 33794... Repeat of 02 Dec 1300z	FN	WED
	1500/20/40z	11 Dec	214 1 (7756 89) 48861... Repeat of 09 Dec 1300z	FN	WED
	1500/20/40z	18 Dec	214 1 (1244 67) 25392... Repeat of 16 Dec 1300z	FN	WED
	1500/20/40z	25 Dec	214 000	FN	WED
8047/6802/5788	1700/20/40z	04 Dec	463 1 (2170 62) 12069...	FN	WED
	1700/20/40z	11 Dec	463 1 (2279 92) 71985...	FN	WED
	1700/20/40z	18 Dec	463 1 (3966 62) 18536...	FN	WED
	1700/20/40z	25 Dec	463 1 (1879 77) 04500...	FN	WED
9176/7931/6904	1900/20/40z	02 Dec	257 1 (362 97) 35084...	FN	MON
	1700/20/40z	05 Dec	257 1 (9018 63) 33620...	FN	THU
	1900/20/40z	05 Dec	257 1 (9020 53 08111... 9176kHz v.weak, 7931kHz weak	FN	THU
	1700/20/40z	09 Dec	257 1 (9593 78) 71142...	FN/CHPA	MON
	1800/20/40z	09 Dec	257 1 (4145 53) 47290... 9176kHz weak.	FN	MON
	1900/20/40z	09 Dec	257 1 (. . . . .) . . . . 9176 / 7931kHz both v.weak, 6904 Weak	FN	MON
	1700/20/40z	12 Dec	257 1 (2889 95) 28364...	FN	THU
	1900/20/40z	12 Dec	257 1 (4747 63) 23653... 9176kHz v.weak signal	FN	THU
	1700/20/40z	16 Dec	257 1 (8208 78) 48893...	FN	MON
	1800/20/40z	16 Dec	257 1 (2931 68) 31449... Weak signal 9176kHz	FN	MON
	1900/20/40z	16 Dec	257 1 (993 118) 21508... Weak signal on all freqs	FN	MON
	1700/20/40z	19 Dec	257 1 (8521 68) 35710... NRH 6904kHz QRM from digital station	FN	THU
	1900/20/40z	19 Dec	257 1 (7581 54) 31847... NRH 9176kHz. V.weak on 7931kHz	FN	THU
	1700/20/40z	23 Dec	257 1 (2814 72) 80139...	FN	MON
	1800/20/40z	23 Dec	257 1 (6755 51) 79227... 9176kHz v.weak	FN	MON
	1900/20/40z	23 Dec	257 1 (7361 102) 30693... 9176kHz v.weak, 7931kHz weak	FN	MON
9223/8193/7463	1300/20/40z	02 Dec	214 1 (939 209) 33794...	FN	MON
	1300/20/40z	09 Dec	214 1 (7756 89) 48861...	FN	MON
	1300/20/40z	16 Dec	214 1 (1244 67) 25392...	FN	MON
	1300/20/40z	23 Dec	214 000	FN	MON
10343/9264/8116	1830/1850/1910z	03 Dec	124 1 (8735 59) 91970... 10343kHz NRH, 9264kHz very weak	FN	TUE
	1700/20/40z	05 Dec	257 1 (6842 73) 17912... 10343kHz weak signal	FN	THU
	1800/20/40z	05 Dec	124 1 (362 97) 35084... 10343kHz weak signal	FN	THU
	1830/1850/1910z	10 Dec	124 1 (7409 68) 30393... 10343kHz weak signal	FN	TUE
	1700/20/40z	12 Dec	124 1 (9801 80) 79660...	FN	THU
	1800/20/40z	12 Dec	124 1 (800 119) 03283... 10343kHz weak signal	FN	THU
	1830/1850/1910z	17 Dec	124 1 (4694 59) 23323... 10343 & 9264kHz very weak	FN	TUE

10343/9264/8116	1700/20/40z	19 Dec	124 1 (5083 71) 91127...	FN	THU
continued	1800/20/40z	19 Dec	124 1 (. . . . .) . . . . . Very weak signal on all freqs	FN	THU
11435/ 10598/9327	1600/20/40z	02 Dec	938 1 (5228 113) 10287...	FN	MON
	1830/1850/1910z	04 Dec	938 1 (. . . . .) 11435kHz NRH. 10598 / 9327kHz v. weak	FN	WED
	1600/20/40z	09 Dec	938 1 (3231 119) 01602...	FN	MON
	1830/1850/1910z	11 Dec	938 1 (. . . . ...) Very weak signal on all freqs	FN	WED
	1600/20/40z	16 Dec	938 1 (5032 113) 58691... Weak sig on 10598kHz	FN	MON
	1830/1850/1910z	18 Dec	938 1 (5822 58) 09145... 11435 & 10598kHz very weak	FN	WED
	1600/20/40z	23 Dec	938 1 (5615 106) 54976...	FN	MON
	1830/1850/1910z	25 Dec	938 1 (. . . . .) 11435kHz NRH. 10598 / 9327kHz v. weak	FN	WED
13386/12189/11491	1600/20/40z	05 Dec	725 1 (3095 114) 24153...	FN	THU
	1600/20/40z	12 Dec	725 1 (9217 105) 37600...	FN	THU
	1600/20/40z	19 Dec	725 1 (9810 100) 55290...	FN	THU
13569/14869/16269	1010/30/50z	01 Dec	582 1 (9511 93) 03697...	FN	SUN
	1010/30/50z	05 Dec	582 1 (253 95) 10933...	FN	THU
	1010/30/50z	08 Dec	582 1 (253 95) 10933... Repeat of 05 Dec 1010z	FN	SUN
	1010/35/50z	12 Dec	582 1 (7748 81) 96697... Late start of 1030z transmission	FN	THU
	1010/30/50z	15 Dec	582 1 (7748 81) 96697... Repeat of 12 Dec 1010z	FN	SUN
	1010/30/50z	19 Dec	582 1 (1311 91) 56460...	FN	THU
	1010/30/50z	22 Dec	582 1 (1311 91) 56460... Repeat of 19 Dec 1010z	FN	SUN

M12a (two message variant)
No reports

M14 IA MCW / ICW / MCWCC, short 0

A change to the number of groups sent in the M14 regular msgs has been noted by both Guy (GD) & Richard (RNGB). Where previously these msgs consisted of 15 grps, they are now using 20 grps.

4636	1820 - 1828z	12 Nov	186 (2 . . .) Unreadable due to heavy QRM by (local?) PSK-mode	tiNG	TUE
	1820z	26 Nov	186 (247 020) Usually sends 15 groups, also the GC was sent as 020	GD	TUE
	1820z	10 Dec	186 (409 020) 64424 26474 04941 95754 35937.....55743	RNGB	TUE
			(Strong with key-clicks) Seems like these training nets using 20 groups now instead of the old 15.		
4761	1920z	13 Nov	748 (365 20) = 48975....	HFD	WED
	1920z	11 Dec	748 (692 020) = 51059 23438 76167 25680 94045.....17105	RNGB	WED
7578	1700z	01 Nov	269 00000	RNGB	FRI

M14a (two message variant)
No reports

M18 IC Time strings, UTC+4
No reports

M23 O ICW

8030	1510 (IP) - 1515zz	11 Nov	'246'(R) In progress stops at 1515z	FN	MON
8030//10755	1500 - 1515z	12 Nov	'246' (R15)	BR	TUE
	1700 - 1715z	12 Nov	'246' (R15)	BR/RNGB	TUE
	1900 - 1915z	12 Nov	'246' (R15)	BR/PLdn	TUE

No more calls were heard on this sched. However the hourly dashes continued to be sent up to 04 Dec. From 05 Dec no more dashes were heard.
Why would this station continue to send these hourly dashes for nearly a complete month before ceasing?

It was beginning to look like M23 wasn't going to be active at all in December - and then on 13 Dec...

3659.5	2124 (IP) - 2134z	13 Dec	'787' (R)	PLdn	FRI
	2200 - 2234z	13 Dec	'787' (R34)	PLdn	FRI

I'm sure the radio amateur community wasn't best pleased with these two 34 minute transmissions in the middle of the 80m band !

3659	2058 - 2134z	14 Dec	'787' (R35)	Strong	BR	SAT
	2158 - 2234z	14 Dec	'787' (R35)	Strong	BR	SAT

Tony (Topol) found a // transmission on 3960kHz (IP) at 2130z..

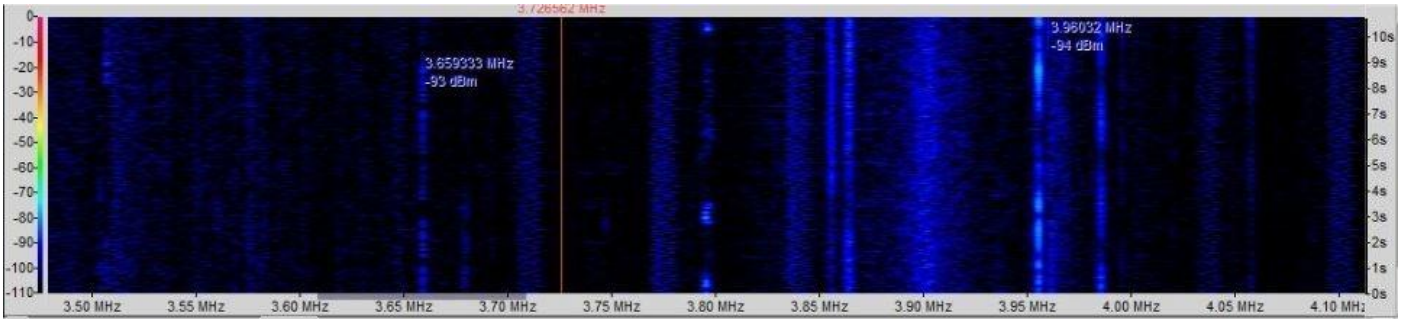
3961	2130z (IP) - 2134	14 Dec	'787' (R)	Strong QRM5 BC	Topol	SAT

Tony comments;
Was well hidden in the waterfall beneath the BC, but could be heard easily 787 repeated for 4 minutes, then ended with single long tone of approx 2 seconds

This sequence then repeated daily // on both freqs;

3659//3961	2058 - 2134z	15 Dec	'787' (R35)	Strong			BR/PLdn	SUN
	2158 - 2234z	15 Dec	'787' (R35)	Strong			BR/PLdn	SUN
	2058 - 2134z	16 Dec	'787' (R35)	Fair			BR	MON
	2158 - 2234z	16 Dec	'787' (R35)	Fair			BR	MON
	2058 - 2134z	17 Dec	'787' (R35)	Fair			BR	TUE
	2158 - 2234z	17 Dec	'787' (R35)	Fair			BR/RNGB	TUE
	2058 - 2134z	15 - Dec	'787' (R35)	**Daily**	Fair - Very Strong Variable		BR/PLdn	
	2158 - 2234z	15 - Dec	'787' (R35)	**Daily**	Fair - Very Strong Variable		BR/PLdn/RNGB	

Scheds still appearing daily at time of publication (30 Dec). Thanks to Paul (PLdn) for his daily monitoring of this station.



Screen capture showing both freqs 3659 // 3961kHz. Note: 3961kHz is stronger but has XJT QRM on the HF edge. *Courtesy PLdn*

So we have '787' sent on two simultaneous freqs for 35 minutes, twice a day for at least two weeks - This must be important to someone!

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

5416	0405z (IP) - 0415z	17 Dec	(724 103) In progress ...28373 09803 04646 (Remote tuner Siberia)	JPL	TUE
9463	0727z (IP) - 1812z	06 Nov	801 (397 55) Found in progress sending a msg	RNGB	WED
	Many breakdowns and re-starts. Finally ended at 0812z with 55214 45850 397 55 00000. Possibly more than one msg sent.				
10463	1130z	10 Dec	262 (893 127) = 41536 57974 46954 37363 99674.....21587	RNGB	TUE
	1130z	17 Dec	262 (745 112) = 21561 21727 97350 14964.....51417	RNGB	TUE
	1300z	10 Dec	980 (623 58) = 17359 18456 82216.....50990	RNGB	TUE
13389	1100z	10 Dec	262 (893 127) = 41536 57974 46954 37363 99674.....21587	RNGB	TUE
	1100z	17 Dec	262 (745 112) = 21561 21727 97350 14964.....51417	RNGB	TUE

M24a (two message variant)
No reports

M45/1 XIV MCW, hand (525 sched for Nov - Feb). Will change to M45/2 sched ID 555 for Mar - Apr

No transmissions have been heard from M45, or its voice sister station S21 since the end of October. We are monitoring this situation with interest.

M51 XlX

These logs from our friend Spectre - Many thanks for the logs!

9213	1423 - 1429z	11 Nov	[NR 62 N 11 15:23:44 1985 BT LVBMV ... JUMLD BT]	Fair QRN3 QSB2	Spectre	MON
	1429 - 1436z	11 Nov	[NR 63 N 11 15:29:59 1985 BT GXWJO ... HOKXF BT]	Fair QRN3 QSB2	Spectre	MON
	1436 - 1442z	11 Nov	[NR 64 N 11 15:36:10 1985 BT DXLIO ... KIKYS BT]	Fair QRN3 QSB2	Spectre	MON
	1442 - 1448z	11 Nov	[NR 65 N 11 15:42:29 1985 BT MWXID ...VGEIT BT]	Fair QRN3 QSB2	Spectre	MON
3748	1936 - 1937z	13 Dec	[NR 63D 10 20741728 1985 BT KDCKV EGYTT... (Remote Tuner Finland)		JPL	FRI

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

3881//6825						
	0755 - 0826z	01 Dec	Lecon Samedi / Dimanche 4 Lecon N1/1 Codé , Lecon N2/1 Clair (420 grps/hr)	BR	SUN	
	1230 - 1300z	03 Dec	Mardi-Lecon 22-2/1 Codé 22-2/2 Clair, 22-2/3 Codé, 22-2/4 Clair (600 grps/hr)	BR	TUE	
	1230 - 1304z	04 Dec	Mercredi-Lecon 23-2/1 Codé 23-2/2 Clair, 23-2/3 Codé, 23-2/4 Clair (720 grps/hr)	BR	WED	
	1230 - 1303z	06 Dec	Vendredi-Lecon 25-2/1 Codé 25-2/2 Clair, 25-2/3 Codé, 25-2/4 Clair (960 grps/hr)	BR	FRI	
	1230 - 1312z	09 Dec	Lundi-Lecon 01-2/1 Codé 01-2/2 Clair, 01-2/3 Codé, 01-2/4 Clair (420 grps/hr)	BR	MON	
	1230 - 1300z	10 Dec	Mardi-Lecon 02-2/1 Codé 02-2/2 Clair, 02-2/3 Codé, 02-2/4 Clair (600 grps/hr)	BR	TUE	
	1230 - 1304z	11 Dec	Mercredi-Lecon 03-2/1 Codé 03-2/2 Clair, 03-2/3 Codé, 03-2/4 Clair (720 grps/hr)	BR	WED	
	1230 - 1254z	12 Dec	Jeudi-Lecon 04-2/1 Codé 04-2/2 Clair, 04-2/3 Codé, 04-2/4 Clair (840 grps/hr)	BR	THU	
	1230 - 1303z	13 Dec	Vendredi-Lecon 05-2/1 Codé 05-2/2 Clair, 05-2/3 Codé, 05-2/4 Clair (960 grps/hr)	BR	FRI	

M89 O

In the last newsletter we featured an unusual intercept by Jean-Paul (JPL), from the 10 Oct on 8888kHz, in which the English phrase 'Who are you?' was sent several times. It seems this was not a unique event, as JPL again monitored a similar exchange on 13 Nov, this time on the frequency of 6666kHz.

M89 uses the frequencies of 4444, 6666, 7777, 8888kHz and similar on a regular basis for chat, presumably chosen for their ease of selection, (assuming we are talking of keypad operated transceivers here), and the fact that they are easily remembered numbers.

6666 1210 - 1232z 13 Nov (In tfc) (Remote tuner Hong Kong) JPL WED

(In tfc – horrible CW – 1210z) VV BT BD3T BT7U 5... (Cont'd – 1211z) ???? 75 NU FM 3 BT 3EE IBS NR B9Y BOY BOY ?? (1211z)
BT SK IB SB SB USB USB (2nd station on freq) NC UNC UNC HOAE EEEE **WHO ARE YOU ?** E **WHO ARE YOU ?** (1212z)
.. K AGN K .SB R WHT H5WHO. EEEE R **WHO ARE YOU ?** (1213z) IKKK **R WHO ARE YOU ?** (1214z) K KK VV BT 6M3TN. A
IM WSL .. K VV BT UN73 DTA4 ... (Cont'd – 1215z – 2nd station also transmitting) AR (1225z) MS N..Z MSZ MSZ (1225z) 05 05 05 VV ...
05 05 05 (1226z) VV BT 0KZ SQM 4 SQIL T (1226z) NOLA R FFF TDX FOW YNZ IBERTPIJ OULKP GUWQXDSKTS (1228z) ..? K
VV KZ..H QSF TPVCROLAYADN..WYNZSBEI RTPIJULKPGUWQXDS KTSJFVER.NZO UGYP
JHFNLFRS CIOKVYDMPDLUCSY (CONT'D – 1229z) (Silent – 1231z) QRI .. ? HFAY GNBRJS QICEMAT ?
.. (Cont'd – 1232z)

Five Letter Groups from M89 **Logged on 5500kHz - Usually a freq used by QV5B Using previously unknown format**

5500 1317 - 1352z 13 Dec (In tfc - hand sent) (Remote tuner Hong Kong) JPL FRI

(In tfc – normally this frequency used by QV5B – Checked //4225 but N/H - 1317z)

SNOAS WFYRB FCQCV MOASI QTWGL BXOLQ QJFPV ..NWD DKSLU WVLNH
KQXWL ? ? 42W NW (Using same format as M89 to repeat groups)
KQXWF IJKEM DXKNQ DGCAH AUJMZ TMNOD KLZEW GLEWL NKMLI AYLJB AKXAK WFHKM
MWFAK ..ZQW YXB. WGAGK EAJOY IMXYJ BRKNY CKJFP JFWQA AR W
GA (1321z) (Have never seen this message format for M89) **NR 14 66 NR O14 76 CK 60 60 BT** (1322z)
..... GSJFB IJRA4 YMZMZ ARZHL HJALS NDJFC AIOCM YRBKJ FWKNN .XUFW
JZQNG .LYVG OIWDP YNTSV KYJBG UKIQU ZUQWS ZTQBB RLCRE GVQQT
STHYV BTBIZ MYRIS WTXVR BTLBT QFVDD PGUSW LTSFJ DZURU BYLKM
NINMJ PHBTG WVHGJ XRBBZ RJEVY ZHYFC GMXWC HRDGA TEFXH JFGMN
LKYFD DQCLI DWWAE EO.HF MVHCR TUAER V? XQLOE TEQHC RCXAV
AQSUC RFBYD LPJHW MLIGR VEXNA QBJUF ILEIN QMNF R.. VA JEDZI AR W (1326z)
R NR 015 67 NR 015 67 CK 62 62 BT
STQWZ BCFUI SFNJB NZRFS QWYPX IJBKU KEKOA IQABM HDHNZ LJJOW
QHWLE LCHZN SWBDK DHERZ TPQLA APPTL UHWDQ FLRNI RBOFP HJPIW
CVHZN VVTAD FBYRQ JMJXX QIGGT KAYEY .PPLB HYORQ YAK? YAXCB USQDS
OSKKF NUHY. HJERK OFUAE IJHMW JLOHY .FCRF OWGUE KZTFH YKDYB FLBIZ
GJRZN GXFID YJUVN DUCYO XBHRT WKIG. ZKWTJ LLHHH LJNFA QLSBR HLSOJ
RAOYD BFAHX HOHWI NTCNM PAQIQ ELQLO URBRW KLAIC LEZYK VKAHV AR W (1332z)
NR NR 016 58 NR 016 58 CK 62 62 BT
JHZER SRGJD HIRLK MKCUF UHJXG LQJJX ZSEVJ DDTET JEFHV YQAOF SZRLH AAJLW
VWSPL KKSMO PNSUE FK.VV BRZGG YUITD XBNTV MVKFR IILLN PBANG
SDTYB JWYCF IPZQJ RHKAX IYVHM TQJVZ RIAZA NEUIW PXHKZ KAJYE
XSFYD LEPCW RO.I GHYFZ XFHAY HGBPQ HXMQA IOGPD WSFSO HQHWE
F? 43W FM IQUDT QCSPA BZTHT HVMUS LUR.S YYGUH BLWYR DYOFE
REYVG THTDA O.DMT OGHNM JBTRP DTJNG KRZPU RCWOM KTYPL
WIHLZ XBGBM DMXCY ..W (1337z) 11W ..RRH ? (Other station on this frequency but mostly U/R)
5453W FM O..MT OG.NM JBTRP .TJNG KR.PU RCWOM CT.J. (1339z) 2EOW AAJLW .3LVWSPL
19W BT ..V 223W SNTYB 23W 14W 24W .MYCF 22.W RHCPA
(Signal fading – cont'd to repeat groups – 1342z) 54W OGHNM (1344Z) GA
NR NR 017 56 NR 017 56 CK 6. .O BT
LTA.. DDVTN RMXLQ ITFAN TTIHXV FEAAB VYUWA RQLQO UGOBD
VORNL ZAYGT QUBJP ARLJV JHQQP WKPIB X.FHF WCZCN PNEHY
XRPD UZBIQ AORTL VGJBQ NUNGG MSHRC QOGTO WSNCR ZYBEF
NUTPP .CJYX TNSUD YDQOG IRWQI DXSYI UJJCY YQJJ. CJNZV GLUJM
HD.DX JMSTW QZNCO XVKQQ DBVHY UPQHT HZLSD TELDA CPBZL
.KH.Q KNDJC TGDMP RASKG QQTBQ YWYGG QFVIT INZEZ L.BNE
BTWRO VDPGE GGXXO HZWWF WWOVX AR W (1350z) ..... 40 QZNCO
NR NR 018 78 NR 018 78 CK 6O 6O BT
PRICD ONFWN VRSVO LCDXI LEKH. RXEII EXGTS CSKJT YUOEY TREFJ
SVOZD AWEEY ZXRTG (Cont'd – unable to monitor any longer – 1352z)

5500 1508 - 1612z 13 Dec (In tfc) (Remote tuner Hong Kong) JPL FRI

(In tfc – 1508z) 11W KEKIW (1510z) GA (Other station in this frequency but mostly U/R)
NR 027 78 NR 027 78 CK 62 62 BT (Hand sent)
OCGDY ZQJOO JPJQN HXBPR DORNE SFFLD ? SFFJ. NSYHC MNKZ TROTO SRMRS
WKWCP VUFNO SAKFF PJNGP VQUBS DKSZH GEZKJ LUUWI SFMJP QCKCL
NWFPF SORHF HARSM MVVVM YGPRK UFKBH OARFO DZBVI GWKGY HNKTT
DEAAD WTGJI TJILQ APINZ XSZFB TGFXF DTPDN VJVVY OBSA.. ...B HDMLV
LWOCD DUBDZ LCNAR K.ZPF DWZFK ZQBUH .ZBOT KJBCW RELUU VBHYO
NHKV VSMRX TDXKX GWMFE EBZXD OMPOP HUNJI GNTDY JKZCE KFVBV
HIPCP AR W (1515z) NHKVZ GA
NR NR 028 58 NR 028 58 CK 62 62 BT

DXZGB AV TKOVT UMPIN PCCMP PRTID CHNSL QWRPH XRRFH TWULF
CYMOA UOZZZ JTNUS XZRMT BTKRX WNPDM SCEWP AXAII GGJYN EARWD
ZROHQ ENNSJ EBBGC KWYAC SKNAH TXTXC ZUBXP UZGSF FMDZG BFXCL
SJISU YIKKX GMHCU ACDO. DTWZY JROAW FADHM DRAKX TSKPU CF.DZ
ULUNM WCFCA QWPWO KQZIP ZBQYV FIMWB TPAYO ZNSXS BHJXH GQKXZ
XJCCL RKBAT OROZH BHQNM SZLLQ EBFHG RIIUS YSPLZ BRDYDE PVPLB
RHAZU SCWXP QQLJW AR W (1521z) 47W ZNSXS R 99 9W TWULF ? ? (Silent – 1523z)
NN (1530z) N..N N3.. N.. N3.. (Cont'd - Silent - 1532z) NS.. ... (1538z) NS..... (Cont'd – 1539z) GA
NR 029 77 NR 029 77 CK 62 62 BT
FNOAX .UDJR ..... OMYAL DR.NZ (Cont'd - Signal fading – 1540z) AR W (1545z)
15W MKMNL (Repeats groups) GA (1555z)
NR 030 78 NR 030 78 CK 62 62 BT
JYUBR YA.CX QYMZS ZGTNC 4USTG FOTBK VCDXK KPJFN UBDVL (Cont'd – 1556z)
GA (1611z) (Never seems to QSL for the message being sent)
NR NR 031 60 NR 031 60 CK 62 62 BT
PBGLA RGGVN CSVSG KOQCN WIDBP BXA.R ODNYR PXHI. KN.OD VMFV (Fading – 1612z)

Operator Chat from M89

3378 2122 - 2130z 30 Nov (In tfc) (Remote tuner Siberia) JPL SAT

(In tfc – 2122z) 43D7 NT66 U35U 7.5U AD7N AU7D (Cont'd – 2123z) K BT 37T7 37T7 AR K (2124z) BT ...N6.4N K R SK SK
R DE A75U GA K R GA (2125z) **MSG NR 01 CK 91 98 1201 0430 RMKS 6644 TO 6434 BT** 47NU TDD5 67DN (Cont'd – 2125z)
AR K (2129z) R 14W BT UT7N UT7N AR K R 40W BT 54DN 54DN AR K R OK GB (2130z)

3380 1532 - 1634z 06 Dec (In tfc) (Remote tuner Siberia) JPL FRI

(In tfc – machine sent - 1532z) 53A4 T5NN U755 UNNT 7NTD 54DT (Cont'd – 1533z) III BT (Silent - 1634z)

3733 2019 - 2033z 05 Dec (In tfc) (Remote tuner Siberia) JPL THU

(In tfc – Machine sent - 2019z) DA73 5NT6 6.UN 4N7D NA7D (Cont'd – 2019z) AR K (2022z) R ... AS VV **BKVE DE PXHT K** (2023z)
.... DE PXHT K QX5U R R AS VV BKVE DE PXHT K (2024z) R R HT EEE R EEE HR CQ MSG GA RC BT
MSG ... MSG **MSG NR 5719 CK 68 91 1205 04.1 RMKS CQ BT** BT AD35 ND45 74UD 6... (Cont'd – signal fading a bit – 2025Z)
R R QSL ? K (2030z) NR GN 5W K R R HR WK NR 21. K (2031z) KP VVV UF.. R QSL .. K QSL ..3.. K (2032z) OK UMPSV EEEE
VVV MWS4 K R R QSL ? K R R K PK (2033z - Silent)

3740 2045 - 2046z 05 Dec (In tfc) (Remote tuner Siberia) JPL THU

(In tfc – machine sent – very weak – 2045z) 6A73 N.4A T... (Cont'd – 2046z)

3852 2047 - 2100z 29 Nov FBB8 (In tfc) (Remote tuner Siberia) JPL FRI

BT 0357 0357 R EEEE K (2047z) RPT K 93W BT T445 T445 K (2048z) R AS K (2049z) **BOZ** QSY NR 0. K (2049z)
VV **8WS1 DE FBB8 K** (2050z) R **BOZ** QSY NR 4 III EEEE BOZ QSY NR 4 BT EEEEE **BOZ** QSY NR 4. K (2051z) **GY2K DE FBB8 K**
R R GA K (2051z) RPT TIME K (2052z) RPT TIME K R GA K (2053z) RPT ...2 TO ... K (2058z) (Audio problems with remote tuner – 2059z)
...01 K **BOZ** ..LSB WK K (2100z)

4444 1729 - 1748z 20 Nov (In tfc) (Remote tuner Hong Kong) JPL WED

(In tfc – hand sent – 1729z) **MSG NR..... 9 1120 2230 BT** .... 3N4D TDDA T5ND 35AN 34AT U6N7 (Cont'd – 1730z) QSL? K (1732z)
QSA 2 QSA ? K (Both stations on this freq) R HR E GA K (1733z) HR GA K R NR M NR EE 0EE EE NR 02 ? EEEEE II II I
EE NR EEE NR 023/0239 BT 0239/EX XEX EE 0 EE NI EE NR 0239/EX EEE O EEEEE **NR 0239/EX 1519 BT** A36 ? A3II ? A36/CD6 AR
A36/CD6 AR K (1736z) QSL ? K R QSL **QSL 1522** QSL QSL 1522 QSL 1522 K (1737z) HR M HW HR MSG N HR MSG GA K
R MSG 7G NR 070 7G **NR 0240 CK 129 96 1120 1500 BT** A345 777T 5TA7 U443 NU5U DU74 NUA3 5AU7 (Cont'd – 1739z) AR (1742z)
BOZ BOZ TO GTB BOZ TO UPS UUP UP UJUP UPS UJ UUUP UPS SSSS SSSSSS ISSHSE BPI S U UPS B UUPSB BUPSE UPSB K (1745z)
R HR HSRWK NR 1311 K HR WN HR A HR ISHHR HR IEHR WK NR 1311 K (1746z) HR IS HR WK NR 1 HR WK NR HR WK NR 0 HR WK
NR HR WKNR 311 K R (1747z) HR IE .R EE HR U HR HR E GA K HHR E GA K HK HK HK HK
EEEEEEE EEEEEE EEEEEE EEE EEE II EEEE (Silent – 1748z)

4444 1707 - 1714z 28 Nov (In chat) (Remote tuner Hong Kong) JPL THU

(In chat – 1707z) FOVQ V R R R HN AGN HR. QSA 2 K (1708z) QSY TO NR 02 K (1709z) VV U. AGN U QSY TO NR 10 K (1710z)
VV R .. QSY TO NR 16 K (1711z) VV DDE AGN .. (Another station has appeared on freq and causing QRM – 1713z) R K (1714 – Silent)

4444 1910 - 1936z 28 Nov (In chat) (Remote tuner Hong Kong) JPL THU

BT BT BT BT BT 7 VVV BT BT 45 BT VV 7G NR 7G NR (1910z – Hand sent – very slow CW)
7G NR 09 EEEE
7G NR 09 EEEEE
7G NR 083 K EEEEE (1912z)
7G NR 07 EEEEE
7G NR 083 CK 499 90 1129 11 75 RMS 7308 TO 8027 K (1914z) BT
A43A A5D4 U6N7 6DU4 5UTA UDA7 UTD7 5DT? UTD7 BT 76? U775 7NUT A77T (Cont'd – 1915z)
F377G NR 54. GNR 57 GG090 5474 DUAN TUA3 AAGGGGGGG 4F555455 (1919z) M0SE 5047 GNR 547 7G. 7G NR 54G0000 (1920z)
G007GA43AA5D4U6N76DU45UTA UDA7 UTD7 57NU TA77 (Cont'd – 1921z) K (1930z – Silent) VV HR GN HR 7G (1933z)
HR **HR MSG NR 083 CK .99 90 1129 .. 75** BT B4X4N 4I BT BT BT A43A A5D4 U6N7 6DU4 5UTA UDA7 (Cont'd – Repeat of earlier msg - 1934z)
K (1936z – Silent)

4474 1341 - 1403z 09 Dec GL3Y DE GL8X (In tfc) (Remote tuner Hong Kong) JPL MON

(This frequency normally used by CZT2 – Due to signal strength of this station probably part of the QV5B Family)

U QSY TO NR 10100 K (1341z) U QSY TO NR 10 K K KK U QSY TO NR 10 10 K K (1342z)
DE DE DE DE DE **GL3Y** K K DE DE R R R QSA2 K (1343z)
R R ICE NU 6170 AR K K (Normally exercise related) K K 6170 AR K K R R HR NR NOT K K (1344z) R U NR NOT K R R HR .. K
R FF **NR 05/EX 2145 RMKS 6786 TO 0272 K** K (1345z) FF NR 05/EX 2145 RMKS 6786 TO 0272 K K BT BT INTNU2/A5LHE AR BT
INGN2/A5LSE AR K K (1346z) K K R IN.U2/A5LHE AR BT INGU2/A5LSE AR K K (1347z) R R U FF GA K K
VVV VVV U QSY TO NR U3 U3 U3 K K 23 UY.EEE U QSY TO NR 2 EEE EEE23 U QSY TO NR 23 (1349z)
U QSY TO NR 24 24 K U QSY TO NR 24 24 K K U QSY TO NR 06 06 06 K K K U QSY TO NR 02 02 U QSY TO NR U QSY TO 10 K
U QSY TO NR 10 10 K K (1351z) U QSY TO NR 17 17 K (1352z) QSY TO 1933 K U QSY TO 1933 (1353z) QSY TO 1933 K K
U QSY TO 1933 K K U QSY TO NR 06 EEEE U QSY TO NR 06 K (1354z) DE DE R R R DE DE DE DE DE K K K
DE U ..YTO NR 02 K K U TK.. NR 02 K K U QSY TO NR 02 K K (1055z) R RR VVV GAI3 EEEE V GL3Y DE GL8X K (1356z)
VVV GA EEEEE VVV **GL3Y DE GL8X K** (1356z) RR UF GA K R R AGN K (1358z) AGN RPT K GL3Y K KK **QSL 2148** (1400z)
AGN U F GA K (1401z) R R R R GA U QSY TO NR 06 06 K K (1402z) U QSY TO NR (1403z - Silent)

4487 1119 - 1135z 03 Dec (In chat) (Remote tuner Hong Kong) JPL TUE

A63U AR K (In chat - 1119z) R RPT 5.. (Both stations on this frequency) RPT 52 TO57W K
RPT 52W TO 57W BT 6U7D 53T4 A765 UND3 D54N 67TA AR K R OK **QSL 1922** WK NR 525 K (1121z) RRR HR WK NR 325 K
HR **7G TO U PSE T.CY K RRR OK GA K** 7G NR 465 CK 100 .3 1203 1? 1911 RMKS RMKS .576. ..688 TO 5763 K (1122z) RR OK GA K BT
N5TU 5E? 47D3 A65N A63U 4D7T NT4A U635 7D5N 63T7 A4UD NT75 (Cont'd – 1123z) AR K (1129z) R RPT 50 ? 50W BT 4TN6 T? AR K
R RPT 50W BT BT 4TN6 AR K RPT 59W K R RPT 59W BT BT 7TU3 AR K (1131z) .... 70U3 AR K R RPT 66W K
R RPT 66W BT BT A45U AR K R RPT 93W K R RPT 93W BT BT 56N7 AR K (1132z) R RPT 51W TO 6W ? R RPT 51W TO 60W K
R RPT 51 TO 60W BT BT TNA4 6U.. 53T4 A765 UND3 D54N 67TA U345 DN6U 7TU3 AR K (1134z) RR **QSL 1932** (1134z) OK NR 325 K
R OK WN ? OK WK NR 525 K R R BL VA R OK NIL VA PSE LL (Silent - 1135z)

5421 1808 - 1813z 29 Nov (In tfc) (Remote tuner Siberia) JPL FRI

(In tfc – machine sent - 1808z) 43U5 AU43 AU34 N6A5 A3U5 T7AD (Cont'd – 1809z) AR QSL ? K (1810z)
R HR **MSG NR 003 CK 99 66 0130 0205 K** (1811z) R HR RPT 59W 654A 654A K (1812z) R RPT 59W NATD NATD K
R HR WK NR 410 K (1913z) R HR NIL SK (1813z)

5455 1246 - 1302z 14 Nov (In tfc) (Remote tuner Siberia) JPL THU

(In tfc – hand sent – 1246z) HR MSG BT US3T AUU7 6NBB TB.. (Cont'd – 1247z) TULLLL TO HR SK SK (1302z)

5460 1105 - 1117z 16 Nov (In tfc) (Remote tuner Hong Kong) JPL SAT

(In tfc – Machine sent - 1105z) 353D 56NT 67NA 475T (Cont'd – 1106z) BT BT N7DU U554 T3A6 (Cont'd – 1109z)
III K BT BT U56. A67T (Cont'd – 1113z) III BT BT BT 3DT6 AU.. TNU7 (Silent – 1117z)

5510 1155 - 1159z 04 Dec **MWUA DE 2GLJ** (In tfc/chat) (Remote tuner Siberia) JPL WED

N3A6 TNT3 N76D (Cont'd – machine sent – 1155z) AR (1156z) HR WK NR 1. VV **MWUA DE 2GLJ** (1156z) K (1157z) V (1159z - Silent)

5519	2048 - 2039z	12 Nov	(In tfc) (Remote tuner Siberia)	JPL	TUE

(In tfc – 2048z) U6DA DT43 34T3 5U7U (Cont'd – 2049z) AR (2050z) QSL ? K R RPT .42 .3.63 AN K (2051z)
R **QSL 0430 K** (2053z) R HR WK NR 190 K R HR NIL SK (2054z)

5535	1816 - 1842z	29 Nov	(In tfc) (Remote tuner Siberia)	JPL	FRI

(In tfc – 1816z) **NR 8725 TIME TIME 0217 K K** (1816z) .. QS. AR O DE .. AET0 **DE 9204** U QSY CODE 9204 U QSY CODE 9204 U QSY
AGN (Both stations on this freq) **DE 9204 K** 9204 K K (11818z) AGN U QSY CODE 9204 OK OK U QSY CODE 9204 K OK OK
U QSY .... (Station fading) QSA 2 AGN 21. K QS. 021. (1822z) OK EE **NR NR 874 ...02 .. K** (1823z) OK BT BT (Mostly U/R now – 1824z)

5555	1256 - 1310z	21 Nov	(In tfc) (Remote tuner Hong Kong)	JPL	THU

AR (1256z) BT 42W BT BT K 43.. BT BT BT 7U4D AR (1257z) R 10W BT BT BT TTAT AR (1258z)
23W BT BT TATD AR
30W BT A73B AR 71W BT BT E BT BT A54D AR (1300z) OI 1W K BT BT A6NA AR QSL W **WN QSL 2100 K** (1301z)
R R R R (Silent – 1302z) **.... 1121 2105 RMKS 05249 TO 2312 K** (1305z) K
MSG NR 14 CK 199 78 1121 2105 (Another station came up on freq – 1307z) R K (1309z) VVVVV 4HP RK RK (1309z)
R H50 05 05 05 (1310z - Silent)

5555	1304 - 1307z	22 Nov	(In chat) (Remote tuner Hong Kong)	JPL	FRI

(In chat – 1304z) AS (1304z) **BOZ** USE UPSB WK (1306z) BOZ USE UPSB WK (BOZ is seen quite often in chat – possibly a call sign?)
BOZ USE UPSB WK (1307z - Silent)

5555	1226 - 1226z	28 Nov	(In chat) (Remote tuner Hong Kong)	JPL	THU

(In Chat 1226z) **QSL 20 EEEE 2027 K K** (1226z) K K (1226z – Silent)

5555	1231 - 1241z	28 Nov	(In chat) (Remote tuner Hong Kong)	JPL	THU

(In chat – 1231z) 30 AR K
FM BT 47N5EEE
FM BT 47D6 AR K (1232z)
FM BT N47A AR K
FM BT 746U AR K
R F6100 70W BT BT 5157 577N 5T4D 6543 7UDU 63A5 D37T N367 6TAT 3DT3 AR (1234z) 9 EEE AGN (1235z) 915 90 W K BT T7U6 AR K
AGN 94W BT UAUA AR K (1236z) NUEEE BT N36N AR K AGN 8.W BT .... K (Another station now of freq – 1237z) ...330 AR K AGN
80W BT 633T AR BT 633T AR K (1238z) 70W BT 3DT3 AR K GA (1241z- Unable to monitor any longer)

5555	1101 - 1109z	30 Nov	(In tfc) (Remote tuner Hong Kong)	JPL	SAT

3AU7 567A DN45 6.UD (Cont'd – hand sent – very slow – 1101z) (Silent - 1103z) UT3465 (1105z) LND7TAU3456D.7NUA3 (Cont'd – 1106z)
R 51151 67DN T43A D7DN U3T5 A4A? A467 DNTU (Cont'd – 1109z)

5555	1725 - 1739z	05 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	THU

BT D7A6 DT36 U77N 6436 4TAU 6U57 (In tfc – 1725z) III BT UAAU 745T A5U5 5746 6543 757U (Cont'd – 1739z)

5555	2008z	05 Dec	(In Call-up) (Remote tuner Hong Kong)	JPL	THU

05 05 05 (2008z – very weak - Silent)

5555	1207 - 1238z	06 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	FRI

UT34 65NA (In tfc – Hand sent - 1207z) **05** 05 TN34 D455 7NTU A34U (Cont'd – 1208z) **05** 05 05 05 A437 .. 20 K OK G OK G.. (Horrible CW – 1209z)
.. **NR 34**. 7N AUN3 T74A 5D5U (Cont'd – 1210z) **05** AR 05 05 (1212z) **05** UVV **BT 7G NR .05 0RR 05 2 NR 311 NR 391 AR**
VV 4N4 T553 UN. 3NIU 3NU. (Cont'd – 1213z) (Another station on frequency) **05** 05 05 05 (1216z)
BT T.AU N3T. (Very hard to copy as both stations sending at same time) **05** 05 05 **NR 316** O5 05 05 05 (Into tfc - 1219z) AR (1227z)
05 05 05 BT BT Z305 3A. 60 Z3 5T 4S NU5 NTND.. (Cont'd – 1228z) (Another station on frequency)

5555	1807 - 1831z	06 Dec	B9MR (Remote tuner Hong Kong)	JPL	FRI

(In call-up – 1807z) R R **DE B9MR** K (1807z) R R DE B9MR K (1808z) R R DE B9MR K (1809z) R R DE B9MR K (1811z)
R R DE B9MR K (1813z) R QSA 2 K (1813z) R R BT 5B73 AR K (1814z) R 5R NR 106 K
U QSY TO 8811 U QSY TO 8811 K (1815z) U QSY TO 8811 K U QSY TO 8811 U QSY TO 8811 K (1816z) U QSY TO 8811 K

U QSY TO 1111 U SQY TO 1111 K (1818z) DE B9MR K R GA (1818z) (Checked 8811 and 1111 but N/H) GA (1822z) R RPT 20W (1824z)
RPT 20W R RPT 21W R RPT 19W R **QSL 0225 K** (1826z) NR 7G NR 25/CCK CK 30 20 AGN
MSG NR 25/CCK CK 30 28 1207 0205 RMKS 0884 TO 67086 K (1827z) **7G NR 25/CCK CK 30 28 1207 0205 RMKS 0884 TO 6786 K** (1828z)
R BT BT 3D76 67D6 46U5 764D N53A 7T5A 6N53 N473 TAN4 TT3T ADT4 U653 56DT (Cont'd – 1829z) AR K (1830z) R R SK GB (1831z)

5555 0939 - 0947z 07 Dec (In tfc) (Remote tuner Hong Kong) JPL SAT

1009161/913 AR (In tfc – Signal fading - 0939z) BT **COMM/2.45/LZ106A2./8652/9161 AR** COMM/2A EEEBT
COMM/2045/LZ106A1/8652/9161 AR (0941z) VVV HR SVC NR 77. **NR 77 2000 RMKS .6EE1.. 61/. RMKS 8651 TO 9561/9131 BT**

SVC Q BT SVC Q.. 9131 QR. 189161 20.0 COMM ..1. AR 9.31 QR. 91.916. 2030 COMM 9561. HR .WK NR 28 (0944z)
SVC QRW 9131 QR. L189161 0200 COMM 9561 AR BT IVC QRW 9131 QRW L189161 .200 COMM 9561 AR HR WK NR 56 AR (0947z)

5555 1826 - 1904z 09 Dec (In tfc) (Remote tuner Hong Kong) JPL MON

(In tfc – 1826z) 4T77 TATN TT6T NTA4 DNT4 D637 (1827z- Lost tuner)
(Checked 4225 and heard sending R/S - Due to signal strength, this station probably QV5B or part of the QV5B family)

5555 1847 - 1904z 09 Dec (In tfc) (Remote tuner Hong Kong) JPL MON

(In tfc – 1844z) N5T6 NT54 A75U 63AU 76DA III BT (1847z) TT6D E N4D7 6DU7 TT6D N4D7 5DU7 3U6A (Cont'd – 1847z) III (1855z)
VV VV BT T5NA T343 5T4N 55ND T33A (Cont'd – 1856z) III (1857z – Silent – Monitored until 1904z)

5555 2203 - 2223z 09 Dec (In tfc) (Remote tuner Hong Kong) JPL MON

EEEE B A66 BT 7DAV 7DA3 64N7 TU7N A33D (Cont'd – 2203z) II II BT TNTN U476 U7N3 T4DA 5NDA (Cont'd – 2211z)
III III DBUD DETT DD 75N5 UUA4 TT74 63N5 4AUN (Cont'd – 2217z) AR K (2223z) VV VV VV **YY43 DE SSD9** R K R (2223z)
DE UO0V (UO ZERO V) V KRR HR QSA 2 K (Both stations on this frequency) R R HR QSA 3 K R R
ICE BT 1243 AR K (Normally associated with Exercise traffic) **R BT 3421 AR AR** AGN R BT 3421 AR K R R (2225z) SNGN HR NR NOT K
R R HR NR NOT K R HR SG GA K R R GA GSG **NR 018 CK 99 18 1210 0600 RMKS 7407 TO 0798 K** (2226z) R R GA R BT
7DA3 645N TA7N A33D 5U5A 35A7 AZ? ? A76N 36UA TA7N TTA3 ATA5 (Cont'd – 2227z) AR (2235z)
BT BT BT 7G NR AGN **NR 01 CCK199** EEEEEE 7DA3 64N7 TU7N A33D 5U5A (Repeat of above msg – 2237z) BT BT BT
7DA3 64N7 TU7N A33D 5U5A 35AA 7A76 N36U (Cont'd – 2240z) K (2259z) BT BT BT
7DA3 64N7 TU7N A33D 5U5A 35AA 7A.. N36U (Cont'd – 2300z) (Seems to be sending same message over and over) (Silent 2301z)

5555 0138 - 0145z 10 Dec (In tfc) (Remote tuner Hong Kong) JPL TUE

AND4 356U 7TDA N456 7DN3 (Cont'd – 0139z) AR AR (0143z) 05 05 05 05 (Cont'd - 0143z)
QSL SK GB (Very weak – 0145z)(Different station from above) **0PEW DE BN.. K** (Silent - 0145z)

5555 0136z 11 Dec (In call-up) (Remote tuner Siberia) JPL WED

05 05 05 (Cont'd – 0136z - Silent)

5555 1037 - 1038z 11 Dec (In call-up) (Remote tuner Hong Kong) JPL WED

(Two stations sending at same time – 1037z) **DE 9KYR** QSA 2 R NIL SK V NG TS (1037z) VV VV (Silent – 1038z)

5555 1055 - 1102z 11 Dec (In tfc) (Remote tuner Hong Kong) JPL WED

RMKS 6402 TO 3722 BT BT (1055z) IV.EEEE BT BT IVLU1/UDNO2 BT IVLU1/UDNO2 AR K (1053z)
R FF NR 034/CCK 1050 RMKS T402TO 3822 EEEE **FF NR 034/CCK 1850 RMKS 6402 TO 3722 BT BT**
IVLU1/UDNOU AR K IVLU1/UDNO2 CK (1056z) U F GA K (1057z)
(Message format would suggest this station belongs to the QV5B family) RPT K (1058z) GA **QSL 1859 K** (1059z)
PSE U QSW 3142 K (1100z) PSE U QSW 314U 2030 K (1101z) PSE U QSW 3042 AT 2030 U PSE K (1102z - Silent)

5555 1153 - 1201z 11 Dec (In tfc) (Remote tuner Hong Kong) JPL WED

QSA 2 (1153z) N QSA QSA 2 22 QSA 2 U QSA 2 2 2 2 2 (1154z) 2 2 2 2 2 2 1122 22 2 2 (1155z) 2 2 2 2 2 2 2 2 2 2 2 88
99 99 90 02 2 2 (1156z) 2 2 2 2 2 2 2 2 2 2 BT BT BT 5UT4 T4D7 6U7. ?? (1158z)
3W 3W 3W 3W WW 3W 3W BT BT 3W BT BT 6A73 4U3D 756U TDA6 U37N T36A 3D67 6UN??? 6A ??? 6A7N (1159z)
10W BT BT 6A7N BT BT 6A7N 6A7N 6A7N (1201z – Unable to monitor any longer)

5555 1558 - 1605z 13 Dec (In tfc) (Remote tuner Hong Kong) JP FRI

05 05 55 55 05 05 05 (Cont'd – 1558z) **NR 1566 CK 60 67 1204 1413 BT BT** 63NT UD45 A7UN 543D 46DA 75T5A ... (Cont'd – 1559z)
QSL QSL QSL QSL QSL QSL QSL QSL (1601z) K R R A R .W RPT GA GA GA GA GA GA (1602z) QSA QSA EEEEE 5 BT
4444S 444 AL X5 LLAX5 EEEEEE HH RLA L DAX RAXEEEEEE L..5 5 SSXX// FFFFFFF44X BB DE B (1604z) //// 5SR ? VVVVV 7E 4 U ?? (1605z)

5555 0115 - 1958z 16 Dec (In tfc) (Remote tuner Hong Kong) JPL MON

(In tfc – 0115z) 56A DTUN 345D NT6A 37U4 (Cont'd – hand sent – 0116z) III AR (0118z)
VVV BT DUN7 53A4 6T73 TA3? 5T4N (Cont'd – 0119z) AR (0121z - Silent)

5555 1949 - 1958z 16 Dec (In tfc) (Remote tuner Hong Kong) JPL MON

66 (Carrier – 1949z) V T AR K 7.55 BT 554AA. 73WI 4S 373AAR BT 73G IE BT G V (Horrible CW – 1950z) O6VV VS I 73 AR BT 7V33 T3 74D (1951z) BT 7W3 AR K
VVV BT BT BT BT T56T 5374 N4DU N437 3U56 UT76 DN56 A (Cont'd – 1952z) 73 3455555576 (1955z) 7D33 457D 7D77 DN7D N7DN 7D (1955z)
VV BT VVV BT BT T56T 5374 N4DU N437 3U56 UT76 DN56 (Cont'd – repeat of above sent groups – 1956z) AR (1957z)
VVV VV VV VV VV VV VV QSA 2 (1958z) VV 4 AS VV BT BT T56T 5374 N4DU N437 3U56 T AR SB SB 2B 2B 2B 2B BS (1958z – Silent)

5555 1520 - 1529z 18 Dec (In tfc) (Remote tuner Finland) JPL WED

(In tfc – very fast – 1520z) D4T5 AR (1520z) 1W BT 6..A AR K R 72W BT U..6 AR 13W BT 3NA2 AR (1521z) R R
7G NR 13 CK 115 74 1218 2322 RMKS 1.7. TO 4. AG (1522z) R R BT 54.A T EEEEE BT 545A .DX4 T.. (Cont'd – very fast – 1523z)
AR (1527z) 5W BT .... AR 5W BT 4.U. AR 82W BT 67ND AR K (1528z) (Cont'd repeat groups) R SK GB (1529z)

5555 1312 - 1358z 19 Dec (In tfc) (Remote tuner Hong Kong) JPL THU

(In chat – 1312z) USE (1312z) QRO (1313z) U QSJ TO 03 EEEEE U QSJ TO NR 03 K (1314z) Y Y Y U QSY TO NR 03 K (1315z)
HR NR 678 K QSA QSA ? U G A T BT (1316z)**AAES** AAES PHONE PHONE USE USE QSY TO NR 05 HR NR 678 HR NR 8 72 720 (1318z)
(Call sign?) **IEC BT 1267 AR** (1318z) (Normally associated with Exercise traffic) HR F GA HR F GA **MSG NR 01 MUTI** MUTI (Call sign?)
RPT RPT AGN AGN (1320z) QSB QSB QSL QSL ? U NR K QSA 2 QSW QSW QRW QRW QRQ (1321z)
TIME TIME TIME CLS CLS RWT CLS RWT CLS (1322z) RWT RWT EEEEEE RPT TIME RPT TIME U NR ? U NR S EEEEEE U NR ?
HR MSG GA K (1323z) U QSY TO NR 01 K U QSY TO NR 01 R (1324z) QRW 123 AR QRW 233 QRW 13 AR RCVR RCVR (1325z)
RCVR RNR RNR **CCK** CCK (1326z) (This format normally associated with the QV4B family) U CK U CK UGT UGT COMM BT
UGT COMM (1327z - Silent) VV VV (1331z) **7UBS** HR HR NR 3 AR (1332z)(Callsign?) FM EEEEE MSG MSG PSE CYSW
MSG PSE CYHW MSG PSE CYHW (1333z) HR RCV R TRUB NW BS PSE NOTE CY HR RCV RTRUB NW BS PSE NOTE CY (1334z)
HR RCV RTRUB NW BS PSE NOTE CY GA GA GA YR MSG TRY GA YR MSG TRY GA YR MSG TRY GA (1335z) ALL GA ALL GA ALL GA
(1336z) YR MSG QRX HR MSG CLS 11 PSE CY YRMSG QRX HR MSG CLS 11 PSE CY YR MSG QRX HR MSG CLS 11 PSE CY (1337z)
RPT PL EEEEEE RPT PBL RPT PBL RPT PBL (1338z) **NR 1 CK 85 56 1018 1413** NR 1 CK 85 56 1018 1413 NR 1 CK 85 56 108 1413
(1339z)(As sent) RPT DATE TIME RPT DATE TIME RPT DATE TIME (1940z – Silent) **HR CQ MSG A** (1344z)
HR CQ MSG PSE ALL CY HR CQ MSG PSE ALL **CY** (This appears to be the control station - CY = Copy) HR CQ MSG PSE ALL CY (1345z)
HR PSE RX X GA AT 1500 COMM HR PSE QRW X GA AT 1500 COMM HR PSE QRW B YES SK EEEEEE PSE QRW X GA AT 1500 COMM HR (1347z - Silent) (Weak station on frequency briefly, but mostly U/R – 1358z)

5559 1103 - 1125z 20 Nov (In tfc) (Remote tuner Siberia) JPL WED

(In tfc – hand sent – very weak - 1103z) 3N54 ANTT (Cont'd – 1103z) 05 BT (1116z) N6U7 .TND 7A.U (Cont'd – 1117z)
05 05 BT T73N ..TU5 7T5T TU4T (Cont'd – very long msg – 1125z)

5566 2022 - 2039z 12 Nov VV **BCAP DE 0RL2** (Remote tuner Siberia) (Call sign is **ZERO RL2**) JPL TUE

(In chat – heavy fading of signal - 2022z) R UR 7G GA **MSG NR 002 CK 99 66 1113 0..2 RMKS 061. TO 1.39 BT**
54DA UN36 6U4A A5N7 T4.. 9(Cont'd – 2023z) AR QSL ? K (2027z) R RPT 5.. K HR QRJ U. 06 K R AS (2028z)
V .7 DE OS.W K (2028z) BCA7 DE ... 2 K

VV BCA7 DE 0R.2 K (2029z) VV **BCA7 DE 0RL2 K** (2030z) VV BCA7 DE 0RL2 K (2030z) VV BCA7 DE 0RL2 K (2031z)
VV BCA7 DE 0RL2 K (2033z) VV BCA7 DE 0RL2 K (2034z) VV BCA7 DE 0RL2 K (2035z) VV BCA7 DE 0RL2 K (2037z)
VV BCA7 DE 0RL2 K (2038z) R QSA 2 QSL ? K (23039z) R AS (2039z – Silent)

5566 1126 - 1128z 20 Nov (In tfc) (Remote tuner Siberia) JPL WED

(In tfc – machine sent – very strong - 1126z) 43UN 6UDN UA36 DA53 UN4A (Cont'd – 1127z) AR 7. E (1128z - Silent)

5596 1142 - 1146z 04 Dec (In chat) (Remote tuner Siberia) JPL WED

BT 4UN5 5734 5A3D (Cont'd – Machine sent -1142z) AR (1146z - Silent)

5687 1132 - 1137z 20 Nov (In tfc) (Remote tuner Siberia) JPL WED

(In tfc – machine sent - 1132z) 6NU3 37D5 734A N7TU 7DUD (Cont'd – 1133z) III BT 6DAT 7ND3 3436 7N75 (Cont'd – 1137z)

5700 1413- 1424z 10 Dec (In tfc) (Remote tuner Siberia) JPL TUE

(In tfc – machine sent – 1413z) 24P BT BT BT 3ADT 37NN 3U75 U4N. (Cont'd – 1413z) (Due to signal strength, probably part of the 3A7D family)
AR (1424z - Silent)

5755 0143 - 0155z 11 Dec (In tfc) (Remote tuner Siberia) JPL WED

NR 180 EEEEEE AGN (0143z) **NR 1805/EX 0943 RMKS CQ BT** CQ 61 EEEEEBT (Message format suggests this station belongs to the 2SLC family)
CQ 61/DEC3. AGN NR 1805/EX 0943 RMKS CQ BT CQ 61 DEC3 AR QSL ? K (0145z) AAL QSL 0.4. **QSL 0946 K** HR CQ 7G GA HR CQ 7G
GA 7G NR 1806 CK 80 45 1211 0930 RMKS EEEE (0147z) HR CQ 7G GA 7G NR **1806 CK 80 45 1211 0930 RMKS CQ BT**
AT4U 3TA. ..3TA 6TU7 463T 34U. AUDN DU45 6DT7 743N (Cont'd – 0148z) AR QSL ? (0153z)
ALL QST EEEE ALL **QSL 0955** ALL QSL 0955 **ALL CHG USB WK** AR (0155Z)

5805 1249 - 1251z 09 Nov (In tfc) (Remote tuner Siberia) JPL SAT

(In tfc – machine sent - 1249z) N46U 7763 TUU5 A4.. (Cont'd – 1249z) AR (1251z - Silent)

5814 1142 - 1150z 03 Dec (In chat) (Remote tuner Siberia) JPL TUE

RMKS 134 TO 5678/0123 BT (In tfc – 1142z) CL/1230/ZBT/1234/..78 AR (1143z) HR MSG PSE .Y HW (1144z)
444 VVVVV SVC GA TRTT.223RMKS AW34 TO 560.8/0123 BT C./1230/ZBT/1234/56.8/IEC M.G PSE CY HW 434 (1147z) VVV TT1 EEEE
VV HR HVC GA **NR 001 30 RMKS 134 TO 567./.13 BT** CL/230/ZBT/124/.../ VVV TT1 EEEE
VVV HR **SVC GA NR 001 30 RMKS 134 TO 5678/013 BT** CL/230/ZBT/134/5678 AR (Silent - 1150z)

5866 1314 - 1319z 22 Nov (In chat) (Remote tuner Siberia) JPL FRI

(In tfc – 1314z) R RPT 91W K R RPT 91W N37A N37A K (Both stations in this freq) R RPT G02 K R RPT 90W 347N 347N K R RPT 50W K
R RPT 502 TNTN TNTN K R RPT 30W K R RPT 30W 5D36 5D36 K R RPT .0W K R RPT 20W K RPT 20W T63U T63U K R RPT 1.2 K
R RPT 10W A5EEEE RPT 10W A4.. A47. K R RPT 9W K R RPT 9W 5N46 5N46 K R AS R (1317z) R AS RPT 08W K R RPT 8W K
RPT 8W N546 N546 K R RPT 9W K R RPT 9W 5N46 K R QSL ..15 K R OK ER HR AK NR 15 K (1719z) NR 10 K R HR NIL SK
NIL SK (1319z)

6470 1058 - 1059z 10 Dec (In tfc) (Remote tuner Siberia) JPL TUE

(In chat – 1058z) **R QSL 2200 K** (1058z) 1N R QSL 2200 K (1058z) R QSL 2200 K R SK (1059z)

6556 2100 - 2107z 10 Dec (In tfc) (Remote tuner Siberia) JPL TUE

RPT 11W TO 29W K (2100z) 6AUN UT4N 76A TU. 7N34 .. K MSG R UGA K (2101z)
NR 32 **R QSL 0506 K** (2106z) EEE NR 320 (2107z) R HR NIL K R SK (2107z)

6616 1354 - 1355z 10 Dec (In tfc) (Remote tuner Siberia)] JPL TUE

(In tfc – very weak – hand sent - 1355z) U7A4 D... 34 63UT .. (Cont'd)

6655 1030 - 1039z 20 Nov (In tfc) (Remote tuner Siberia) JPL WED

(In call-up – 1030z) VV WGA7 DE SQRM QSA EEE VV **WGA7 DE VRP4 K** (1031z) Q42. R QSA 2 ICE BT .254 AR K (Exercise related)
R ...AR K (Both stations on this freq) R HR MSG GA K (1033z) GA K R HR MSG PA NR S066/EEEE
NR MSG GA NR 001. CCK 91 69 .. 1830 RMKS EEE RMKS 0735 TO 0828 BT UDT3 65TD 7.NN U67N 7DTU 375N .. (Cont'd – 1034z)
HR WK NR 17 QSL K K (1039z)

6666 0331 - 1033z 04 Nov (In tfc) (Remote tuner Hong Kong) JPL MON

(In tfc – hand sent - 0331z) **29 CK 95 55 1023 0934 RMKS 74.0 TO 7149 AR** (0332z) BT BT
DUN7 53A4 6T73 5T4D NAU6 NT7D 4U56 A3T4 A5NU 6N.. (Cont'd – 0332z) (Silent – 0335z) R EEEE 00 BT BT (0336z)
7G NR 0076555 0924 098 7 **NR 007 65 55 0924 0081 RMKS 0100 0912 K** (0337z) VV 753/4ADN TA36 T344.A7D.. (Cont'd – 0338z)
III (0343z - Silent)

6666 0333 z 04 Nov YOSY DE WIJA (Remote tuner Hong Kong) JPL MON

VV YOSY DE WIJA (1033z – Hand sent - Silent) (Unsure of call sign due to weak signal and poor CW skills by the operator)

6666 1908 - 1914z 16 Nov (In tfc) (Remote tuner Hong Kong) JPL SAT

RMKS 1296 TO 6426 K (1908z) R RMKS 1296 TO 6426 K VVV LL NR 01/EX 0305 RMKS 6420 AGN
FF **NR 01/EX 0305 RMKS 6426 TO 1296 BT** ABCD2/DCBA0 AR K (1910z)
FF **NR 01/EX 0305 RMKS 642 RMKS 6426** (1911z)
FF **NR 01/EX 0305 RMKS 6426 TO 1296 BT** ABCD2/DCBA0 AR K (1912z) (Last character is ZERO)
555 56 666 664444 43377 3377777733333333 777 700 (Silent - 1914z)

6666 0045 - 0058z 28 Nov (In chat) (Remote tuner Hong Kong) JPL THU

(In chat – Hand sent – horrible CW - 0045z) R R **DE 443T 43P4HW K** NN NR 1 RT RR **NR 0120 NR 120 K** 7G EE (0046z)
OK 07G T7GPSA (0046z) S VV BT 74II I AR V 4 BT A R **DE 4HP 4HP R K** NR 120 NR 120 R K (0047z)
7G **NR 617 CK 95 55 1106 0945 RMKS 5658 TO 5960** (0048z) 77G NR 6 7 G NR 6A7 CK 95 55 1106 0945 RMKS 5658 TO 5960 (0051z)
12345890P VV BT I (0055z) VVV BT 545053 (0058z - Silent)

6666 1034 - 1042z 02 Dec (In tfc) (Remote tuner Siberia) JPL MON

(In tfc – Hand sent - 1034z) 347N 3NU5 4T7A 5D3N 72 ? 7UAT 465N (Cont'd – 1034z) AR (1036z) VV BT 74III AR C AR
VV BT 74AD 6T45 72I BT 457U 6AD. (Cont'd – 1037z) (Another station now on freq – 1038z) AR AR (1040z) DE K AGN (1041z)
U ???? VV DO.. III VV B4I IA23 AR AR (1042z) 47A 5D3 N.UAT 465N (Cont'd – Silent - 1042z)

6666 1541 - 1555z 03 Dec (In chat/tfc) (Remote tuner Hong Kong) JPL TUE

U2B U2B USB U2B UU2B U2B U (1541z) **U2B** U2B UB U3B USB U (Callsign ? - 1543z) 6UB **U2B** U2B UBU2B U (Cont'd – 1544z)
BT BT 4NN4 N7NT NT55 D... (Cont'd – 1546z) BT 6 BT DTTU HR QSX VVV GN HR QSA . K HR NR .OT NOT K R HR NA BT VVV
.. AS AT .N. 33. BAATA BT BT (Silent - 1549z) 444 UU VVV VVV (1555z - Silent)

6666 0125 - 0208z 05 Dec (In tfc) (Remote tuner Hong Kong) JPL THU

199 29 1205 RMKS 9139 TO 5539 K (0125z - Hand sent)//A AGN AGN//B (Both station on this frequency) 7G NR 012 CK 199 7G NR 012 CK 1//A
NR 012 CK 199 AARPN //A **7G NR 012 CK 199 29 1205 0925 RMKS 9139 TO 5539 K** (0125z)//A GA//B BT
DTA4 533M ? 533N N3TA DD37 3D67 N6NA TNU5 N4N5 TA77 TTA5 5? 547T 6477 TD5N (Cont'd – 0130z)//A AR (0143z)//A R//B (Very weak)
1P K//B R//A ....//B AGN//A 1W//B (0144z) .... K//B R K//A 1W K//B K //A 1W K//B 1P ...//B
U QSY TO 33 EEEE UQSY TO 3 K (0146z)//A K//A V G //A **VV DMN5 DE FOVQ K** //A (0148z) RR **DE 9JEQ** K (0149z)//A
VV K VVV DMN5 DE FOVQ K (0149z)//A RRR DE 9JEQ K//A VV DMN5 DE FOVQ K//A AGN//A WRE3 WRE3 EEEE//A
VV WRE3 **WRE3 DE 9JEQ K**//A (0151z) VV VV **P0FR DE QDA7 K** (Call sign P Zero FR) R DE 9JEQ ... FOVQ K R HR QSA 3 K
DVV DMN5 DE FOVQ K AGN VV DMN5 DE FOVQ K (0152z) DMN5 DE F EEEEEEE DMN5 U EEEEEE (0154z - Silent) VV (0159z)
HLP. (0200z) **EE NR 1001/..BT** (Very weak) 9/7N AR EE QSY M QSY ... (0201z) BNU. EE **NR 1002/EX** DAT. BT
BKS8 ... 001/EX TDAT X (BKS8 could be a call sign) .... AR (0203z) ../DEFEG. AR (0204z) .. SK (0204z)
(Another extremely weak station on freq – 0205z) VVV **B8ER** (0207z)(Appears to be a call sign) EE **NR 101** EEE BT 110M0 BT
VVV A453. (0208z - Silent)

6666 1126 - 1205z 06 Dec (In tfc) (Remote tuner Hong Kong) JPL FRI

(In tfc – 1126z) AR //A 8Q EEE O EEEE 80W K (1127z)//B (Both station on this frequency) BR N47A AR //A O EEE 81W K//B
BT DAUU AR //A R 12W K//B BT NDU4 AR //A FM BT//B UT43 AR // **QSL 19**.. K //B R R //A (1129z) HR 7G GA K GA GA
7G NR 13 CK 99 65 1206 1930 RMKS 5345 TO 1194 K (1130z) GA BT BT 45U7 A3NU 647D NU6U 65AN A3DA 3UT7 5U56 TA76 TTT3
T76A U3DT 6D4N TU3N 3437 6T7U 37U4 N7DT 746A (Cont'd – 1132z) AR K (1137z) R 50W 50W BT 65AD AR K R 99W K
R BT 543U AR K R **QSL 1938 K** (1138z) R U MSG GA R HR MSG GA K R R

MSG GA **NR 35 CK 99 84 1206 1939 RMKS 1194 TO 5345** K (1140z) R K R GA BT BT
A45D A5U4 U6TA 6DD4 553A UAU6 UT73 5T74 TA63 TT47 T3D4 (Cont'd – 1141z) AR (1145z) 50W K BT BT 5656 AR 41W BT 37TD AR
23W BT A3N7 AR **QSL 1946** EEEE QSL 1946 K (1146z) R R AS R R (1147z) (Monitored until 1205z – N/H)

6666 1813 - 1826z 09 Dec 33 (In call-up) (Remote tuner Hong Kong) JPL MON

33 33 33 (1813z - Silent - Monitored until 1826z)

6666 1042 - 1047z 11 Dec (In tfc) (Remote tuner Hong Kong) JPL WED

(In tfc – This sounds the louder of the 2 stations on 5555 just a few minutes ago – 1042z) RMKS R K (1042z)
RMKS 7914 TO 1497 R K
OK GA (Both stations on this frequency) VVV BT BT 6.D 3TA7 U4N6 5T3D A7U4 (Cont'd – 1043z) VV VV (1047z - Silent)

6666 1137 - 1149z 11 Dec (In tfc) (Remote tuner Hong Kong) JPL WED

(In tfc) 30 1211 1920 **RMKS 5345 TO 1637 K** (1138z) BT BT 545T 474T 564N 5NTA 4U56 TDU ? ND37 NTU4 D743 TA67 TT43 (Cont'd – 1139z)
AR K (1140z) AGN 16W K (Both stations on this frequency) AGN RPT 16W ... AR K (1142z) BT ND37 AR K R SK (1143z)
EEEEE HR MSG GA K HR MSG GA K (1144z) AGN HR MSG GA K K R R HR MSG GA K K EEEEE U U MSG GA K
U MSG GA K (1146z) GA R QSL 1947 EEEEE **QSL 1948 K** (1148z) VA (1149z)

6666 0207z 15 Dec (In tfc) (Remote tuner Hong Kong) JPL SUN

(In tfc – machine sent – Fast CW - 0207z) 75AD 75N6 D4UA 64AU 5UN6 (Cont'd – 0208z)
III BT N7A3 5T6A U437 UN3T UD7T 73D6 (Cont'd – 0214z) AR K (0218z) R R R RPT 9W BT TA7T III K (0218z)
NRPT 19W BT 6784 III K (0219za) RR RPT 09W BT TTT7 III K R AGN K R AGN K (0220z) R R (0220z – Silent)

6666 0047 - 0112z 16 Dec (In tfc) (Remote tuner Hong Kong) JPL MON

(In tfc – 0047z) CGSYMRS ..HF..PHFAY GNBRJ JSCQH EEE CEEE AR (0048z) VSHDZ RJGYJ EHPLI ESEVS UPAUWT .... (0048z)
QSA 3 K K TR K R K (0049z) U VVV BT 74II AR V335. EEE P EEE AR (0050z) VV BT **74II DE 4HP4** HP NR 0 BT 3 NR 043 R K (0052z)
W OK GA K VV VV VV BT OO7 **GB NR 699 CK 95 55 1219 0145 RMKS 2250 TO 1...34 III** KGA KYW AY4EDCTDZ GB..HR QAMIR UNSJ PZW YCCC.. (Cont'd – horrible hand sent CW – 0054z)
BT **74II** IOK . FGTAW SXFRN ZNVHU BREKI CHYXI (Cont'd – 0055z) AR R K (0056z) OK U 33 **74II** III (0056z)
7M 7G NR 734 CK 95 55 1214 0 RMKS 7470 TO 72 NR 7 (0058z) 7G NR ..0 TT RK RK VVV BT 73I. K MSG NR 734 CK 95 55 1214 09E EE RMKS 7149 TO 7470 R K VV BT BT
N5TU 47D3 A64N A63U 4D7T NT4A U635 7D5N 63T7 A4UD NT75 (Cont'd 0100z) BT DE BT BT ND4T 47UI TE... (Cont'd – 0103z)
AR R K (0106z) QSL M QSL QSL WA QSL 0909 R K (0106z - Silent) VV VV BT 7G NR 734 CK 95 55 1244 092 (0108z - Silent)
VV BT N5TU 47D3 A64N A63U 4D7T NT4A U635 7D5N (Cont'd – 0110z) (Repeats msg – 0112z)

6666 0130 - 0157z 19 Dec (In tfc) (Remote tuner Hong Kong) JPL THU

(In tfc – hand sent – very slow CW – fading - 0130z) A456 DU3N 4AT6 57DU 3UN4 DA67 (Cont'd – 0131z) III III AR (0136z - Silent)
.. **DE GB2** GB2 (0155z) NR 3 NR 3 61 NR 3 61 (0155z) R R OK IRR DE GB2 **NR 3 61** R K OK GB VVV BT BT
DUN7 53A4 6T73 504D NAU6 NT7D (Cont'd – 0157z)

6775 0201 - 0211z 21 Nov F9AG DE JCY9 (In tfc) (Remote tuner Siberia) JPL THU

(In tfc – machine sent – 0201z) AU43 A4DN D65. ..AU 5NT7 7TAD (Cont'd – 0201z) AR 7UB4 III E 7U6NT III EEEEEE (0204z)
HR WK NR 31 QSL ? K .... JCY **JCY9** K (0205z) (Call sign ?) R AGN R QL? K (0206z) QSL ? K R UWK NR ? K (0207z)
R OK VA VV **F9AG DE JCY9 K** (0208z) R RPT RW 9.. 9835 K R RPT 26 W 1489 1489 K (0209z) R RPT 39W 7018 7018 K
R RPT .0W .820 .820 K R .... (0210z) R HR WK NR 32 K R OK SK (0211z)

6838 1024 - 1026z 20 Nov (In tfc) (Remote tuner Siberia) JPL WED

(In tfc – 1024z) 7556 7T4N 3753 7A6D 33TT (Cont'd – 1025z) AR AGN (1026z)

7538 0336 - 0342z 09 Dec (In tfc) (Remote tuner Siberia) JPL MON

(In tfc – 0336z) MSG NR 5710 CK 9.. NR 5711 43EEEE MSG CK 0..1209 ... K MSG NR 5710 CK 3 EEEE (0337z)
MSG 5710 CK 80 44 1209 1020 RMKS 30.. TO 61.. K ..5D AN3U 7TDU AU7. .TU. (Cont'd – 0338z) ? K (0341z) R AGN GA K (0342z – Silent)

7581 0321 - 0330z 20 Nov (In tfc) (Remote tuner Siberia) JPL WED

(In tfc – 0321z) AGN **4105/EX .122 RMKS 452.71. TO 4..37.8 BT** YQ5/ZVO AR QSL ? K (0322z) R U E GA K (0323z) **QSL 0126 K** (0325z)
5. 5 5 N5R.S **MSG NR 41 06 CK .01 0 10.20 RMKS ..2.10 TO 452...** BT .... (Fading very badly – mostly U/R – 0327z) QSL ? (0330z)

7710 1033 - 1037z 21 Nov (In tfc) (Remote tuner Siberia) JPL THU

33W (1033z) BT BT BT 6TD4 K (Both stations on this freq) Q9W 19A BT BT NI BT BT BT N7UA ARW 61W
61W 61W BT BT BT BT BT TU55 AR W (1034z) (Cont'd to repeat groups) QSL QSL OK QSL QSL ? **QSL 1838** (036z)
OK OK NIL NIL SK SK GB (1037z)

7727 1150 - 1222z 12 Dec (In tfc) (Remote tuner Siberia) JPL THU

R AS (In chat – very weak - 1206z) VV 3RF **DE 54TG** K R QSA 2 **IEC BT RE3R AR K** (Normally exercise related) AS VV D.I2 DE 54TG K
R QSA 2 IEC BT RE3R AR K R AS JS.. DE 54TG K (1206z) R QSA 2 IEC BT RE3R AR K R AS VV ..F DE 54TG K
24RF DE 54TG K (1208z) (Most of the outstations are U/R) R QSA 2 IEC BT RE3R AR K R AS VV 32W. DE 54TG K (1209z)
VV 3UWD DE 54TG K QSA 2 IEC BT RE3R AR K (1210z) R AS VV 34EW DE 54TG VV 35EW DE 54TG EEEE
VV 34EW DE 54TG K (1211z) R QSA 2 IEC BT RE3R AR K R AS VV DSK5 DE 54TG K (1212z) AS VV D..1 DE 54TG K
R EE R QSA 2 IEC BT RE3R AR K R R AS HR F NR 5. EEEE NR 5853/EX .0 EEEE **NR 5853/EX 2017 EEE EE RMKS CQ K** (1215z)
BUD4/V.Q8 AR NR 5853/EX 2017 RMKS CQ BT BUD4/V.Q8 AR (1116Z) ALL 1. RLLX. L U 01C R EEE ALU EEEE ALL QSL 101. (1218z)
HA.G GA **MSG NR 5854 CK 80 58 12.. 2000 RMKS CQ BT** (1219z) BT 346D 53NT (Cont'd – 1219z) (Lost tuner @ 1222z)

7773 1150 - 1159z 12 Dec (In tfc) (Remote tuner Siberia) JPL THU

NR GA K (1150z) **R NR 0. .. RMKS ... TO .... K QSL 19.. K** R GA K
NR 047/EX 1950 RMKS .... TO 4.. EEE RMKS ..85 TO 43EEEE TO ... K GA K BT A..BD. AR **R QSL 19.4 K** U GB NA.. (
GN NR ..8 CK 99 74 12.. 54 EEE RMKS 4430 TO .48. K (1153z) R GA K R BT B T N... D4 D6N... (Cont'd - Fading badly – 1154z)
QSA ? K (1159z) GA K (Cont'd msg – 1159z)

7777 1309 - 1314z 03 Nov L2SW DE M9NB (Remote tuner Hong Kong) JPL SUN

(In call-up – 1309z) **L2SW DE M9NB** M9NB MKM KK K K (Silent) (Monitored until 1314 – Silent)

7777 1042 - 1058z 03 Dec (In chat) (Remote tuner Hong Kong) JPL TUE

6ISH AR K (In chat - 1041z) N S EEEE U E GA K (1042z) AGN (1043z) **R QSL 1845 K** (1045z) HR 7G GA K (1046z)
7G NR 06 CK 115 29 1203 1 AGN R HR MSG GA K
MSG NR 06 CK 30 19 1203 1848 RMKS QSP 9139 TO 5617/5539/5799/5639/5583/5626/5624/5625 K (1050z) BT BT
573D 34A7 5N7T N754 T356 TU65 7DTU A34T TA7A TT45 DET ? DUA7 NTDA 5DA4 74A5 7TDA N6A3 T564 A6T4 UN53 TA3U
TAN5 N45D T4D3 ND57 4T63 N3D7 67ND T645 4N7D 5T46 AR K (1052z) K K AGN (1053z) R R (1054z) BT BT BT
573D 34A7 5N7T N754 T356 TU65 7DTU A34T TA7A TT45 DUA7 NTDA 5DA4 74A5 7TDA N6A3 T564 A6T4 I? A6T4 UN53 TA3U
TAN5 N45D T3 ? T4D3 ND5 ? ND57 4T63 N3D7 67ND T645 4N7D 5T46 AR K (1056z) R SK (1058z)

7777 1312 - 1356z 03 Dec DKN5(In chat/tfc) (Remote tuner Hong Kong) JPL TUE

ICE BT 8522 AR K (In chat –normally associated with Exercise tfc – 1311z) R BT 7033 AR K (Both stations on this frequency) R
HR NR NOT CR HR NR NOT K (1312z) R HR I. GA K R GA K R **NR 06/EX 2113 RMKS 9139 TO 5583** DE BT 5I2ME/JA3NB AR
BT 5I2ME/JA3NB AR K (1312 R **QSL 2114** K R HR GA K R GA R NR 06/EX V EEEE **NR 06/EX 2114 RMKS 5583 TO 9139 BT**
ABCD1/DCBA2 AR BT ABCD1/DCBA2 AR K (1312z) R SAPN R R7G GA K QSL ? K **R QSL 2116 K** (1318z) OK K QSL 2116 K OK
R U 7G GA K (1319z) MSG W EEEE HR MSG GA K R GA K R 7G **NR 06 30 29 1203 2100 RMKS 9139 TO 5583 K** (1321z) R GA K BT BT
3567 3N4A 5UTA 74TD 34U? 34UA N66T 4TU3 U3U7 TADA TTT3 5NNT UT43 NT7T 5766 UT5T AN74 NUDA U557 3NU7 47TA 7N3T
6764 6DN3 7NNN A74D 5U73 4AAN 6U4A U7ND 34N4 AR K R QSL 223 K (1323z) AGN R **QSL 2123** K SK HR MSG GA K AS
HR MSG GA K R GA K R MSG NR 06 EEEE **MSG NR 06 CK 30 29 1203 2124 RMKS 5583 TO 9139 K** (1325z) R R GA K R BT BT
BU5T 364U 7AUA 7DA5 7T64 6U4U U74A 7DD6 TA63 TTA6 AD36 3U45 7DNU A567 6UTU 74DN A55D U53U 3N77 7NND

AU3T U536 UAN4 43U5 4NA 6737 657A 5AA5 4746 6D6T AR K (1326z) R PT 10W K R 10W BT BT TTT3 AR K R 10W QS. AGN **QSL 2127** K
R SK SK (1327z) R R (1332z) R **DE DKN5 K** (1332z) R AS U QSY TO NR 15 K U QSY TO NR 15 **DE DKN5 K** (1333z) R QSA 2 K AGN
R BT 7033 AR (1334z) R HR NR 651 K HR NR 651 K GA (1335z) R **QSL 2138 K** (1337z) R **NR 41/EX 2139 RMKS 5799 TO 9139 BT** (1338z)
ABCD1/ABCD2 AR BT ABCD1/ABCD2 AR K R (1340z) GA (1340z) AGN (1342z) C GA (1343z) R QSL 2153 K (1351z) SK GB (1352z)
VVV VVV VVV (Silent - 1356z)

7777 1337 - 1346z 05 Dec (In tfc) (Remote tuner Hong Kong) JPL THU

21 TO 2.10. 176 TO 2945 K (1337z) //A R RPT R RPT RMKS K//B (Both stations on this frequency) RMKS 2.5 TO 2.2. TO ..10 TO.
RMKS 295. TO 2921 TO 251. TO 1..945 K R GA GA K//B R BT BT TU.7 .4.D 7 (Cont'd – weak and noisy freq – 1340z) AR (1345z) //A
R **QSL 2145 K** //B R HR WK //A HR NR 330 K //B HR NIL SK GB //A (1346z)

7777 0945 - 1013z 09 Dec (In tfc) (Remote tuner Finland) JPL MON

TU4. 6T54 D3DT T3A6 (Cont'd – 0945z) BT III 7PG 7PG GA BT BT (Both stations on this frequency)
5UDD 56A4 AT.N N6DT D363 (Cont'd 0945z) BT III 8PG BT BT 4DDA .D.T D5TA 4NNN (Cont'd – 0950z) III III 9 PG GA BT
T374 3TN. U345 T3N7 63AA (Cont'd – 0956z) III III (1006z) 11PG G X BT BT BT BT 6677 7U5.. (Cont'd – 1007z) III III 12 PG BT BT
U676 UTDD 6D7A TA3T 76NT (Cont'd – 1012z) Lost tuner @ 1013z)

7777 1123 - 1129z 11 Dec (GI5Q DE 8KRZ (In call-up) (Remote tuner Hong Kong) JPL WED

(In call-up – 1123z) R R DE 8K... K DE DE **DE 8KRZ** (1124z) R HR QSA 3 K QSY TO NR 16 U QSY TO NR 16 K (1125z) K K (1126z)
U QSY TO NR 07 U QSY TO NR 07 K (1127z) **GI5Q DE 8KRZ K** (1127z) K K (1128z) QSY TO NR 21 U QSY TO NR 21 K (1128z)
GI5Q DE 8KRZ K (1128z) QSY TO NR 21 (1129z - Silent)

7777 1142 - 1147z 12 Dec (In tfc) (Remote tuner Siberia) JPL THU

(In tfc – 1142z – very weak) NR 47/CCK .. EEEE **NR 47/CCK ... 2 112 ..RMKS 345 TO 1.7.. K** (1142z)
3UUA UD36 34A. (Cont'd – 1143z) (This message format normally associated with the QV5B family) 12W BT 3U.. AR K (1145z)
R .1W BT .... (1146z) ... AR K (1146z) GA K (1147z – Fading badly)

7777 0025 - 0135z 17 Dec (In tfc) (Remote tuner Hong Kong) JPL TUE

RMKS .... K (In tfc – 0125z) R GA K (0125z) BT 3431 N4UA 5NT7 TN.. (Cont'd – Machine sent - 0125z) AR (0131z)
2P 1W TO 2W K (Other station on this frequency – Cont'd to repeat groups) **QSL 0933** 0933 K (0132z) QSL 0930 K R R QSL ? QSL ?
SK R R SK GB (0133z) **DJBN DE SPM2 K** (Silent - 0135z)

7777 1543 - 1557z 20 Dec (In tfc) (Remote tuner Hong Kong) JPL FRI

(In tfc – Hand sent – slow CW - 1543z) 657A 4T36 DT.6 T.. (Cont'd – 1543z) AR (1546z) BT BT ND7D .... K BT BT ND7D K (1547z)
VV VV I VV BT T VFUVV N6AT T3AU 654N 46N. DTNA (Cont'd – 1549z) (Silent – 1550z) 7DAU 37D AR AR . AR
TN53 54UT N553 T6AU (1551z) BT BT N53T VV ..... (1552z) 777 NA65 654N NA3 VVV 8237 64A5 374D T7A5 (Cont'd – 1554z)
777 77 777 77 (1557z) BT BT (Fading – 1557z)

7777 1252 - 1255z 21 Dec (In tfc) (Remote tuner Hong Kong) JPL SAT

(In tfc – 1252z) **RMKS 420 EEEEE 4203 TO 4283 TO 4365 TO C798 TO 4203 K** R GA R 1W BT BT A764 45N. 3T67 (Cont'd – 1253z) AGN

7788 1204 - 1225z 09 Nov (In tfc) (Remote tuner Hong Kong) JPL SAT

(In tfc – hand sent – very slow – 1204z) 4563 UD34 TDUU (Cont'd – 1205z) 77777777 (1212z)
MMMMM 7777 00 0 00 00 00 00 00 2 2 0 M 73U3 73U73U 2 O222 2222 UT EEE TTNN NMT22 3 EEE (1214z)
M777MT 777777 7777777 77
VV U3T 333 M.. 7TM TMMAA.MTTTTT T O77777 (1216z) 77.TTN3U53 AN TTA. TTUT T3A. UUUU VV VV V5 V5 (1218z)
7.MT.3.5. 535.4TA4477777777777TTTTTTTTT VV VV VV VVV (1220z)
456D 77777774466 666666AU3 VUSEEE33343333..677777777774A4A346 (1222z)
3UU6 DDDSUUU..TU??I??????I?UT5TTN 3U53AN E TTATTUTT..U..S3.3333 I33 (1224z)
S33UU6TTN3U53ANTTAI ?TTUTT3777733U735. (1225z) (Unable to copy any longer – 1225z)

7788 1032z 05 Dec TBM9 (Remote tuner Hong Kong) JPL THU

DE TD **TBM9** (1032z) VV VVV (1033z - Silent)

7788 0127 - 0138z 10 Dec (In tfc) (Remote tuner Hong Kong) JPL TUE

AS AS (0127z) RPT QSL / QSL 0927 K (0128z) R R H NR 0EEEE NR GA (Both stations on this frequency) R R GA K
..NR .... 0927... 3345 TO 33.. K R R GA GA BT BT COAL/NFN. K (Signal fading badly for both stations) R R **QSL 0929 K** GA R R MSG GA NR 03. CK EEEE
NR 038 CK 99 99 1210 0929 RMKS 3308 TO 2 EEE RMKS 3308 TO 3345 K
R R GA 1W GA BT BT 353A NUD6 3A7U NTNU 74.N N46D ..AU N46U T? TUUU TTNU (Cont'd – 0132z) (Monitored until 0138z)

7788	1107 - 1123z	11 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	WED

(In tfc – 1106z) **99 1211 1900 RMKS 3308 TO 3345 EEEE RMKS 3308 TO 3345 K K** R GA K R R 1W GA BT BT
3N6T 7D3U 433T 5T65 UN5T 3AAD A7T6 AD45 ? AD45 TUT5 TTTD (Cont'd – 1107z) AR K (1112z) R **QSL 1912** QSL 1912 EEE QSL 1912 K
R R U 7G GA K 7G NR 044 CK 99 99 1211 1905 EEEEE **MSG NR 044 CK 99 99 1211 1912 RMKS 3345 TO 3308 K** (1114z) GA K BT BT
3N6T 7D3U ..3 ... AADA 7A (Cont'd – fading – 1115z) AR K (1121z) R R R R **QSL 1921 K** (1121z) R R HR ..23 EEE R EEE R EEE R NR 2030 K
R R HR NR 2030 K NIL SK R R NIL SK GB GB GB GB GB (1122z) GB GB GB GB (1123z)

7825	0333 - 0337z	20 Nov	(In tfc) (Remote tuner Siberia)	JPL	WED

U5AD NU63 DE7T 44AB T7UN 565U (Cont'd – 0333z – hand sent) (Silent – 0337z)

7838	0339 - 0343z	20 Nov	(In tfc) (Remote tuner Siberia)	JPL	WED

(In tfc – 0339z) AR RPT 1W.. (Both stations on this freq) RPT 1W QSL ? K (0340z) RR NRPR 1W.. RRPT 13W 674U 674U K (0340z)
OK (0341z) GA (0342z - Silent) (Lost remote tuner @ 0343z)

8022	1018 - 1019z	20 Nov	(In tfc) (Remote tuner Siberia)	JPL	WED

(In tfc – 1018z) **93 /EX 815 RMKS ...** .../... AR R60./EX .15 R..9 TO L90 .. .../... AR OK (1019z)

8073	1206z	20 Nov	(In tfc) (Remote tuner Siberia)	JPL	WED

(In tfc – hand sent – 1206z) 4T4N N343 53DU 4DT4 (Cont'd – 1206z)

8888	0232 - 0252z	30 Nov	(In tfc) (Remote tuner Hong Kong)	JPL	SAT

(In tfc – Hand sent - 0232z) 7567 5TD3 N445 U6DA 7364 3UNA (Cont'd – 0233z) (Silent – 0252z)

8888	1001 - 1007z	08 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	SUN

K (In tfc – 1001z) R R 2P 2P (1001z) K AGN RV2P 2P AG35W TO 39W 35W TO 39W K 35W TO 39W K (1002z) 38W 38W K
R 38W 38W K 38W 38W (1003z) 38W 38W 38W 38W 38W (1004z) FM FM 37W 37W 37W 37W 37W 37W K (1006z) AGN
R R (1007z – Silent)

8888	1131 - 1135z	11 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	WED

(In tfc – 1131Z) A7A4 5D56 AR K NR PT 18 III TO EEEEE (1132z) 18w to 19W BT BT 5D56 4645 5D56 4D45 ? (1133z) BT BT
5D56 4645 BT 5D56 4645 AR K R R RPT 3W K EEEE RPT 34W K R NPT 34W BT TN5A TN5A III K R R **QSL 1936 K** (1135z) R SK R SK

8888	0107 - 0138z	13 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	FRI

NR RPT 17W K (0107z) AGN NR RPT 17W K R 17 BT 3U36 AR K NR T NR RPT 18W K R 18W BT DATD AR K R R RPT 27W K
R 2 AGN 27W BT UT47 AR K NR RPT 28W TO 30W K R NU BT 47T7 4A34 457N AR K (0107z) NR **QSL 0911 K** (0107z) R U 7G GA K
NR AS AS R (0111z) NHR MSG GA K R GA **MSG NR 1220 CK 299 87 1213 0913 RMKS 0856 TO 6786 K** (0113z) K R GA GA K NR
4UNDA D3NA D547 T3DA U3DA TD56 4NUT TAN6 TA7A TTA6 TD7N (Cont'd – 0114z) AR K (0127z) N K R 1P K NR .. 81 NR RPT IIII K
R 1P .. (Cont'd – repeat groups – 0128z) **QSL 0935 K** (0135z) QSL 0935 K R K 7G GA K
7G NR 22 CK 199 87 1213 0936 . RMKS 6786 TO 0856 K R GA K R BT 5.4U 6533 N. (Cont'd – Unable to monitor any longer - 0138z)

8888	0032 - 0041z	16 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	MON

(In tfc – 0032z) FF NR 07/EX 01EEE CJ1B.BDEEE DC4T. (0033z – Silent) VV SS VV CK VVVVV (0036z) 3456..35 AA 34567..1234567 AA234565 N3 A. (0038z) /CF345/7/TA345.. VVVVV 05 .. DN5445345743AU37NNT457DNU3.4444545
05 05 (0039z) VVV 47DU 345 7DU347DNU34.7DNU377R..U3457S.347SS EEE VVVV VVV VVV (0041z - Silent)

8888	0927 - 0928z	16 Dec	(In tfc) (Remote tuner Hong Kong)	JPL	MON

(In tfc – hand sent – very weak – 0927z) VV O5 05 (0928z - Silent)

9206	0337 - 0341z	10 Nov	(In tfc) (Remote tuner Siberia)	JPL	SUN

(In tfc – machine sent – very weak - 0337z) A7N4 D5AN AU53 36ND (Cont'd – 0338z) AR QSL ? HR WK NR 370 HR CQ NIL K EEEEE
NR CQ NIL SK (0341z - Silent)

10271	0930 - 0937z	08 Dec	(In tfc) (Remote tuner Siberia)	JPL	SUN

8 T0 10150 K (In tfc – hand sent - 0930z) R G A BT ANAT A.VA T655 U57T NADD (Cont'd – 0931z) K 0933z) 7G GA (0934z)
QSA 2 K 3.. (0936z) **QSL 17.. K** (0936z) GB (0937z)

M89 Regular Logs

November 2013: (New pairings marked in **bold** type)

3300//NRH	2047z	01 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2011z	02 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2201z	02 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2201z	03 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1540z	04 Nov	(In tfc) (Remote tuner Hong Kong)	JPL	MON

(In tfc – Machine sent - 1540z) 63AN UNA4 67U6 (Cont'd – 1541z) AR (1545z - Silent)

	2125z	04 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1754z	10 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	2125z	10 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	2058z	11 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2004z	12 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2229z	12 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1201z	13 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1858z	13 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1219z	14 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2014z	14Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1556z	15 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1925z	15 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2204z	15 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1859z	16 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1619z	17 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1928z	18 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2153z	18 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1916z	19 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2040z	19 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2227z	19 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1719z	20 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2025z	20 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2203z	20 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1550z	21 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1925z	21 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1256z	22 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2127z	26 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1339z	27 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1725z	27 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2038z	27 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1213z	28 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1702z	28 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1907z	28 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2054z	28 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1544z	29 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1750z	29 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI

(In tfc – 1750z – Hand sent) 7NR /6380 AR BT 80540/2.65/0300/.1. NR/6380 AR BT 80..0/2..5/0300/1.7NR/6380. AR (Return to R/S 1752z)

	2012z	29 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2252z	29 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1052z	30 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1918z	30 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	2116z	30 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
3642//NRH	2050z	01 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2013z	02 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2203z	02 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1525z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	1535z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2119z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1741z	14 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1517z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2205z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2202z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	2041z	19 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2228z	19 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE

	1840z	22 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	FRI
	2132z	26 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1343z	27 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1726z	27 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2040z	27 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1328z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1758z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FR
3642//5230	1816z	13 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1832z	13 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
			(In tfc – hand sent – //3642 - 1832z) 576A5N4T D56A 3N57 3D.. (Cont'd – 1833z) AR (1837z – Return to R/S)		
	2119z	13 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1328z	22 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1703z	28 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1908z	28 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2055z	28 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
3642//7602	1443z	01 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1813z	01 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2023z	02 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1954z	03 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1228z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	1547z	05 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1315z	10 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1326 - 1327z	10 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	SUN
			BT COMM/ 223./REZ443.4 K EEE (In tfc – hand sent - 1326z) BT COMM/2230/LZ44364 K EEEE BT COMM/2230/LZ4436U/63.4..573 AR QSL ? HR WK NR 33 (Return to R/S – 1327z)		
	1757z	10 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1853z	11 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	2101z	11 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2006z	12 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2231z	12 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1559z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1926z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1318z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1601z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
			(In UGT COMM msg - //3642 – 1601z) QSL ? HR WK NR 33 K (Return to R/S – 1602z)		
	1901z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1251z	17 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1707z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	MON
	1929z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1440z	19 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	TUE
	1812z	19 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	0121z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1726z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2026z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2155z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1551z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1729z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	0124z	28 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1546z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2013z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2253z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2338z	29 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
3761//5485	**Note: New frequency for ASDF**				
	1828z	13 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	2125z	13 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1216z	14 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	2016z	14 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
(3761 only)	1140z	15 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1600z	15 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1927z	15 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2206z	15 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1226z	17 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1933z	18 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3761 only)	2155z	18 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3761 only)	1128z	19 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
(3761 only)	1442z	19 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	TUE
(3761 only)	1813z	19 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1919z	19 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2042z	19 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2230z	19 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1148z	20 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1725z	20 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED

	2027z	20 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3761 only)	2157z	20 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1250z	21 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1727z	21 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1928z	21 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1259z	22 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
(3761 only)	1838z	22 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	FRI
	2134z	26 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1335z	27 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1727z	27 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2042z	27 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1218z	28 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1704z	28 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1909z	28 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2056z	28 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1204z	29 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1548z	29 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1759z	29 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2014z	29 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2254z	29 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1729z	30 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1917z	30 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
3797//4512	2049z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
(4512 only)	1442z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
(4512 only)	1745z	01 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1026z	02 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2015z	02 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
(4512 only)	2204z	02 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1235z	04 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1536z	04 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2126z	04 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1010z	05 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1200z	09 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1800z	10 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	2127z	10 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(4512 only)	2103z	11 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1144z	12 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2007z	12 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2232z	12 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1208z	13 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1905z	13 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1218z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2018z	14 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1602z	15 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1928z	15 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2208z	15 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1905z	16 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1239z	17 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1625z	17 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1930z	18 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1917z	19 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2043z	19 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1728z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2028z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2204z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3797 only)	1253z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1726z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1930z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1300z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
(3797 only)	2136z	26 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(3797 only)	1337z	27 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
(3797 only)	1728z	27 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3797 only)	2044z	27 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1215z	28 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1705z	28 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1910z	28 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2057z	28 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1206z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1549z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1800z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2015z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2255z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
4225//5500	Note: Still having problem with R/S - sending Q45B vice QV5B				
(4225 only)	1026z	04 Nov	V 7NPE (x3) DE **Q45B** (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1236z	04 Nov	V 7NPE (x3) DE Q45B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1537z	04 Nov	V 7NPE (x3) DE Q45B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2127z	04 Nov	V 7NPE (x3) DE Q45B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON

(4225 only)	1026z	05 Nov	V 7NPE (x3) DE Q45B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE

(In R/S since 1026z) VV V (1048z – hand sent)

TC1 UGT COMM BT 9349/1915/Z67/5475 AR
TC1 UGT COMM BT 9349/1915/Z67/5475 AR
TC2 UGT COMM BT 9606/2120/Z69/5475 AR
TC2 UGT COMM BT 9606/2120/Z69/5475 AR
TC3 UGT COMM BT 9602/2200/G31/5479 AR
TC3 UGT COMM BT 9602/2200EEE
TC3 UGT COMM BT 9602/2200/G31/5479 AR
TC4 UGT COMM BT 9955/0055/Z63/5475 AR
TC4 UGT COMM BT 9955/0055/Z63/5475 AR
TC5 02/CCK 25 37 1105 0440 RMKS 5475 TO 7375/9998/5275/5165/9701/ AR EEEE
TC5 02/CCK 25 37 1105 0440 RMKS 5475 TO 7375/9998/5275/5165/9701/9185/9168/9566 AR
TC6 UGT COMM BT 9329/0645/Z67/5475 AR
TC6 UGT COMM BT 9329/0645/Z67/5475 AR
TC7 UGT COMM M BT 9512/0850/G31/5479 AR
TC8U GT COMM BT 9600/0915/Z6.EEEE EE
TC8 U EEEE
TC8 UGT COMM BT 9600/0915/Z69/5475 AR
TC9 UGT COMM BT 9955/A515/G30/5475 AR
TC10 UGT COMM BT 9602/1600/EEE AGN
TC10 UGT COMM BT 9602C EEEE
TC10 UGT COMM BT 9602/1600 EEEEE EEE
TC10 UGT COMM BT 9602/1600/G31/5479 AR 910
(Return to R/S – 1100z) (Doesn't happen often, but just love when they send a complete breakdown of UGC Comm messages like this)

Note: Previous problem with R/S - sending Q45B vice QV5B has now been fixed

	2105z	11 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1150z	12 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2008z	12 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2234z	12 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1627z	17 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(5500 only)	1227 - 1234z	17 Nov	(In tfc) (Remote tuner Hong Kong)	JPL	SUN

(In tfc – Hand sent – slow - 1227z) 346N A44N TNUT U64A (Cont'd – 1228z) (Stopped - Silent – 1234z – This frequency normally used by QV5B)

	1932z	18 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(5500 only)	2043z	19 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(5500 only)	2232z	19 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
4474//NRH	1816z	01 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2241z	12 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	2255z	19 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	0122z	20 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1341z	27 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1733z	27 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	2050z	27 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	0127z	28 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1726z	28 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1929z	28 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1555z	29 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1817z	29 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2028z	29 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2219z	29 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
4512//6773	2233z	19 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd)) (Remote tuner Hong Kong)	JPL	TUE
(4512 only)	1057z	30 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd)) (Remote tuner Hong Kong)	JPL	SAT
(4512 only)	1919z	30 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd)) (Remote tuner Siberia)	JPL	SAT
	2313z	30 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd)) (Remote tuner Hong Kong)	JPL	SAT
4860// 6840	2020z	02 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SAT
	2120z	04 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	1120z	12 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	2020z	12 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	1220z	14 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	2020z	14 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	1920z	15 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	FRI
	1620z	17 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SUN
	1920z	19 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	1720z	20 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	2220z	20 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	1920z	21 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	1220z	28 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	1720z	28 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	2020z	29 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	FRI
	1920z	30 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	SAT
	2320z	30 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SAT

4885//NRH	Note: New frequency for CZT2				
	1930z	30 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	2115z	30 Nov	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	SA
5230//NRH	2020z	06 Nov	V DKG6 DKG6 DKG6 de 3A7D 3A7D	FN	WED
	1726z	30 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	2139z	30 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	2308z	30 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5485//NRH	1742z	01 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1814z	01 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2051z	01 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2206z	02 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1303z	03 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1301z	04 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON

(In R/S) HR SVC GA (1301z) **NR 24 2100 RMKS 2478 TO 0103/2474 BT** COMM/2145/LZ138A8/.475.0103 AR AGN NR 24 2 EEE

NR 24 2100 RMKS 2478 TO 0103/2474 BT COMM/..45/LZ1.8A8/24./0103 AR HR WRK NR 32 QSL ? (1303z) (Return to R/S – 1303z)

	1531z	04 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	2130z	04 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1550z	05 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1159z	09 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2109z	11 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1206z	13 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1900z	13 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1104z	16 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1325z	16 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1613z	16 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1626z	17 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	0230z	30 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5485//8580	1008z	02 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2021z	02 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1240z	04 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1903z	16 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2350z	16 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5588//NRH	0955z	01 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1445 - 1506z	01 Nov	(In chat/tfc) (Remote tuner Hong Kong)	JPL	FRI

4 (1445z) 5 5 U V EEEE R Y Y (1447z) Y Y M (1448z) P X E E T X (1450z) Z U 3 N D T 7 A U (1452z) A37N A A A A3D7 N5A (1453z)
AA AA AAAAA AAAAAAAAA AAAAA AAAAAAAAAAAAA AAAA A AA T (1455z) T A (1456z) A (1458z)
AA 37 U 3 3 A 7D7U EEEEE AAAAAA (1500z) AAA AAAUAAANAA AA
AANNNATEEEAAAAAAANNDDAUUAA34444377655 (1502z)
55 4 37DA UEE AU34 567D DNN7 7 (1504z) U37D 2EEEEEE 333AA2EEEE UU7D D77U 344EEEE 555 AAAA7 33AU 457A ADNA NANA
NNNN NNNA AAAA AN 7D (1506z) (Cont'd very slow CW – hand sent – strong signal)

	1018z	02 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2201z	03 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1024z	04 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1232z	04 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1014z	05 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1147z	12 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1238z	17 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	0955z	21 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1249z	21 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	0126z	28 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1200z	29 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2307z	30 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5678//NRH	1102 - 1141z	20 Nov	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED

(In tfc – 1140z – hand sent) 7345 BT 4N5D A33U U6ND UD63 N7UT (Cont'd – 1141z)

5801//10180	0230z	01 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1007z	01 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1006z	02 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
(5801 only)	1300z	03 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	0323z	04 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON

(In tfc) /66 BT QSL ? HR WK NR 09 (0323z) (Return to R/S – 0324z)

	0938z	05 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1224z	05 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	0332z	10 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1135z	11 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON

(10180 only)	1127z	11 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	MON
	1116z	12 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(10180 only)	0346z	13 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1159z	13 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	0305z	14 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1213z	14 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1129z	15 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	0254z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1130z	16 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1123z	18 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	MON
	1124z	19 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1014z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	0158z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1006z	21 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	0209z	22 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	0256z	30 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1111z	30 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
6773//8040	0908z	03 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(8040 only)	2347z	16Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
(8040 only)	0008z	17 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	2248z	19 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
(6773 only)	0116z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(8040 only)	0124z	20 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
(6773 only)	0154z	21 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
(8040 only)	0037z	28 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2342z	29 Nov	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
6840//NRH	1820z	01 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	FRI
	1320z	10 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	SUN
	1820z	13 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	WED
	2120z	13 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	WED
	1520z	15 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	FRI
	2220z	15 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	FR
	1320z	16 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	SAT
	1620z	16 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Finland)	JPL	SAT
	1820z	19 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	TUE
	2320z	19 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	TUE
	2320z	29 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	FRI
	1720z	30 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	SAT
6840//10640					
(10640 only)	0220z	01 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	FRI
	1020z	02 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SAT
	1020z	05 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	0320z	10 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SUN
	0120z	20 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	0320z	20 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	0120z	27 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	2320z	30 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SAT
7582//8110	Note: Was starting to worry if still active, since last time logged was 13 Oct 13. Note problem with R/S - sending Q45B vice QV5B				
	0312z	04 Nov	V 7NPE (x3) DE Q45B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(7582 only)	1016z	05 Nov	V 7NPE (x3) DE Q45B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
7602//NRH	1248z	09 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	1246z	17 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	0315z	20 Nov	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
8750//NRH	0325z	10 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1129z	12 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
			(In tfc - 1129z) 3T7D ... (Cont'd - Very weak) W K N (1139z) HW .. 3 K (1140z) QSL ? K (1140z) (Return to R/S 1141z) (Not // on 5485)		
	2236z	12 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
8750//10210	0002z	17 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	0113z	20 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	0311z	20 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	0152z	21 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	0959z	21 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	0040z	28 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2318z	29 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2310z	30 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
8811//NRH	0112z	27 Nov	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
10210//NRH	1008z	02 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	0131z	03 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN

	0905z	03 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	0309z	04 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1017z	04 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	0230z	30 Nov	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT

December 2013: (New pairings marked in **bold** type)

3300//NRH	1219z	01 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1434z	01 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1956z	01 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1544z	02 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1809z	02 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2114z	02 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1303z	03 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1902z	03 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1648z	04 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1836z	04 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2104z	04 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1326z	05 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2000z	05 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2225z	05 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1558z	06 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1759z	06 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1955z	06 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2252z	06 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2242z	07 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1625z	08 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1930z	08 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1325z	09 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1525z	09 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1755z	09 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2155z	09 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1628z	11 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2038z	11 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1129z	12 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1734z	13 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1923z	13 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2231z	13 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	0919z	15 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1818z	15 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1925z	15 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1757z	16 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1943z	16 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1406z	17 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1645z	17 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1719z	18 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1537z	20 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1937z	20 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2103z	20 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1508z	21 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2134z	21 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1546z	22 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
3642//NRH	1257z	01 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1556z	02 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	1801z	02 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	2115z	02 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1539z	06 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2251z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	2156z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1640z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1722z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
			(In tfc 1722z) 764U A3T4 4TUU TU6T (Cont'd – 1722z) AR (Return to R/S – 1728z)		
	2047z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1943z	13 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	FRI
	1358z	15 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1647z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2307z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1515z	18 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	WED
	1053z	19 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	2105z	20 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
3642//5230	1957z	01 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1750z	05 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	THU
	1545z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	1757z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	1926z	15 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1940z	15 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1759z	16 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1944z	16 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2007z	19 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU

	1952z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	SAT
	2135z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
3642//7602	1052z	02 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	0137z	05 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1956z	06 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2254z	06 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1418z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1626z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1931z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1333z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	2050z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1515z	20 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1930z	20 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	FRI
	0227z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
3761//5485	1226z	01 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1436z	01 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(3761 only)	1512z	01 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	SUN
	1959z	01 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1545z	02 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1803z	02 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	1811z	02 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3761 only)	2117z	02 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2314z	02 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1107z	03 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1306z	03 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1911z	03 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1652z	04 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1828z	04 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2106z	04 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3761 only)	1550z	06 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1600z	06 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1802z	06 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1954z	06 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2254z	06 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2245z	07 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
(3761 only)	1637z	08 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1932z	08 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1326 - 1330z	09 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON

(In tfc – 1326z) 2130 RMKS 3892 TO 6273/..12 BT COMM/2215/.Z25.6 EE/3892/6273 AR **NR 36 2130 RMKS 3892 TO 6273/6512 BT**

COMM/2215/LZ254 BTEEEE COMM/2215/LZ2546/..../6273 AR QSL ?. UGT WK NR 27 (Return to R/S – 1330z)

	1526z	09 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1757z	09 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2159z	09 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3761 only)	2052z	10 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1131z	12 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1311z	13 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1544z	13 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1926z	13 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2232z	13 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1400z	15 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1801z	16 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1945z	16 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3761 only)	1517z	18 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	WED
	1725z	18 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3761 only)	1517z	20 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1540z	20 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
(3761 only)	1932z	20 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	FRI
	1940z	20 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2106z	20 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1248z	21 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1510z	21 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
(3761 only)	1954z	21 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	SAT
	2137z	21 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2339z	21 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
3797//4512					
(4512 only)	1229z	01 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1438z	01 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	2000z	01 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1025z	02 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON

(In tfc – machine sent - 1025z) A3N4 AR (1025z) **CQ ../5838 4451 5511 MSG NR 1242 CK 98 42 1202 1820 RMKS 412. TO 5838 5..1 5511 BT**

657D 75D6 66.D TU.. (Cont'd – 1026z) AR (1030z – Return to R/S)

	1547z	02 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3797 only)	1802z	02 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	2119z	02 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2313z	02 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1036z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1307z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1913z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1959z	03 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE

81/5121/12/04/0430/167/A/69/60 AR (In tfc – 1959z) **UGT COMM BT 254/081/5121/12/04/0430/167/A/69/60 AR** (Return to R/S – 2001z)

	1654z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3797 only)	1829z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3797 only)	2107z	04 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1029z	05 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1332z	05 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2001z	05 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2227z	05 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1118z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
(3797 only)	1549z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	1602z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1804z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1958z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2256z	06 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	0935z	07 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	2246z	07 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	0958z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(3797 only)	1629z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(3797 only)	1934z	08 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(3797 only)	1336z	09 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3797 only)	1527z	09 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3797 only)	1758z	09 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(3797 only)	2200z	09 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(4512 only)	0934z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(3797 only)	1632z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(3797 only)	2041z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
(4512 only)	1035z	11 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1114z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1545z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1927z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2233z	13 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	0931z	15 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(3797 only)	1403z	15 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
(3797 only)	1942z	15 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	1807z	16 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1946z	16 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1412z	17 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1649z	17 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1727z	18 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1310z	19 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1956z	19 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
(3797 only)	1519z	20 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
(3797 only)	1933z	20 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Finland)	JPL	FRI
	1939z	20 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	2107z	20 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1249z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1511z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
(3797 only)	1958z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Finland)	JPL	SAT
	2138z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT

4225//5500

(4225 only)	2001z	01 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1549z	02 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(5500 only)	1813z	02 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2119z	02 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2313z	02 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1038z	03 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1308z	03 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1909z	03 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1928z	08 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1338z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1528z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2201z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1919z	15 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
(4225 only)	1410z	17 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(4225 only)	1651z	17 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE

4474//NRH	1413z	03 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	2236z	05 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1948z	16 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2305z	17 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1520z	20 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI

	2111z	20 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
	2303z	20 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI
4474//10998					
4860// 6840	1820z	02 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	2120z	02 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	2320z	02 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	1420z	03 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	1920z	03 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	1720z	04 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	1720z	05 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	1120z	06 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	FRI
	1460z	08 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SUN
	1320z	09 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	1620z	11 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	1920z	15 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SUN
	0020z	16 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	1820z	16 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	1420z	17 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	1720z	18 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
4885//NRH	1251z	01 Dec	V RXP7 (x3) DE CZT2 (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
5230//NRH	1510z	01 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	SUN
	0102z	06 Dec	V DKG6 DE 3A7D (Global Tuners)	madcat	FRI
5234//NRH	Note: New frequency for 3A7D				
	1946z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Russia)	JPL	SAT
	2338z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5485//NRH	1230z	05 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1753z	05 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Finland)	JPL	THU
	2004z	05 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	2226z	05 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1119z	06 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	1628z	08 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1631z	11 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	2040z	11 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	1929z	15 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1408z	17 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1648z	17 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	2309z	17 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1308z	19 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	1955z	19 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
5500//NRH	1803z	16 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1947z	16 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
5500/5555	Note: New Frequency for QV5B. Have suspected for some time that QV5B is a major user of 5555. This seems to confirm this notion.				
5500 is normally // with 4225 which is presently silent. Operator probably forgot to switch back to 4225 or thought he did. Switched back to 4225 // 5500 @ 1810z					
	1759z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2201z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
5500//8110	0307z	09 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd)) (Remote tuner Hong Kong)	JPL	MON
5581//NRH	1003z	05 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1026z	05 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
5581//10210	0932z	07 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5588//NRH	1013z	02 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	1031z	03 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1152z	04 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1025z	05 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
	0930z	07 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	0959z	08 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	1413z	10 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1028z	11 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	0013z	16 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	2310z	17 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	2335z	21 Dec	V MW3D (x3) DE 2SLC (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
5801//10180	0327z	02 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
(5801 only)	1114z	03 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
(5801 only)	0300z	04 Dec	V DKG6 DE 3A7D (Global Tuners)	madcat	WED
	1149z	04 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	0959z	05 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
(10180 only)	1125z	06 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	FRI
	0953z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SAT
	0929z	08 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN

	0932z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	0952z	10 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	0141z	11 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1138z	12 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
	1003z	15 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	0239z	16 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
(10180 only)	0914z	16 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
	0403z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	0956z	17 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE
	1016z	18 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	1150z	18 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED
	0154z	19 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
(5801 only)	1246z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	1600z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	SAT

(In tfc – 1600z) CK 91V19 1221 22 . (1600z) VV HR **MSG NR 015/CCK CK 91 19 1221 2100 RMKS 6FH BT** 67.. TD3. 6746 7UU3 76DA 3TNT .. (Cont'd – 1601z) (//5801) (Return to R/S)

(10180 only)	0749z	21 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Russia)	JPL	SAT
	1137z	22 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Finland)	JPL	SUN
	0218z	27 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU
6773//8040					
(6773 only)	0120z	05 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
(6773 only)	0126z	10 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(6773 only)	0030z	16 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	0917z	16 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(6773 only)	0117z	17 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(6773 only)	0128z	19 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	THU
(6773 only)	0742z	21 Dec	V H2FL (x3) DE DRV8 (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
6840//NRH	1220z	01 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SUN
	2120z	04 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	WED
	2220z	05 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	1420z	08 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	SUN
	1520z	20 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	FRI
6840//10640	1020z	02 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	1020z	05 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	0320z	09 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	0120z	10 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	0920z	15 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SUN
	0920z	16 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	MON
	0120z	17 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	0420z	17 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	TUE
	1020z	18 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Siberia)	JPL	WED
	0120z	19 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	THU
	0220z	21 Dec	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) (Remote tuner Hong Kong)	JPL	SAT
7582//8110	1016z	02 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(7582 only)	0127z	10 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	0936z	10 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(7582 only)	0026z	16 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(8110 only)	0915z	16 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(7582 only)	0118z	17 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
(7582 only)	0349z	17 Dec	V 7NPE (x3) DE QV5B (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
7602//NRH	2244z	07 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
	0331z	09 Dec	V DKG6 (x3) DE 3A7D (x2) (Cont'd) (Remote tuner Siberia)	JPL	MON
7740/NRH	1002z	17 Dec	V CQ (x3) DE DP9J (x2) (Cont'd) (Remote tuner Siberia)	JPL	TUE

CQ (x3) DE DP9J (x2) (Cont'd – 1002z) HR NIL SK GB (Cont'd - 1006z) (Silent – 1008z) (This station copied 23 Oct 13 at 0206z)

	1000z	18 Dec	V CQ (x3) DE DP9J (x2) (Cont'd) (Remote tuner Siberia)	JPL	WED

CQ (x3) DE DP9J (x2) (Cont'd – 1000z) HR NIL SK GB (Cont'd - 1011z) (Silent – 1012z)

	0200z	19 Dec	V CQ (x3) DE DP9J (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU

CQ (x3) DE DP9J (x2) (Cont'd – 0200z) AS AS (0210z) TLL BT TLL LL M.R (0210z) ALL L. TLL LL MTT HR (0211z - Silent) (Monitored 0230z)

	1000z	20 Dec	V CQ (x3) DE DP9J (x2) (Cont'd) (Remote tuner Siberia)	JPL	FRI

V CQ (x3) DE DP9J (x2) (Cont'd – 1000z) ... ALL ALL LL LL TO TO HR HR .SE PSE ALL LL TO HR PSE ALL LL TO HR (1011z - Silent - Monitored until 1033z)

	0200z	21 Dec	V CQ (x3) DE DP9J (x2) (Cont'd)) (Remote tuner Siberia)	JPL	SAT

CQ U CQ DP9J V (0200z - Silent) (Seems to be having problems with R/S) (Monitored until 0219z)

	0154z	27 Dec	CQ (x3) DE DP91 (x2) V (Cont'd) (Remote tuner Siberia)	JPL	THU
			C OOO CQ (0154z) CQ DP91 V CQ(x3) DE DP91(x2) V (Cont'd – 0155z) HR NIL SK GB HR NIL SK GB (0207z - Silent) Note: Call sign sent was DP91 vice DP9J		
8750//10210	0927z	08 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	SUN
	0931z	10 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	1031z	11 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	WED
	0926z	15 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SUN
	0019z	16 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	0911z	16 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
(8750 only)	0347z	17 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	0737z	21 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	SAT
10210//NRH	1017z	02 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	MON
	0125z	10 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Hong Kong)	JPL	TUE
	0153z	19 Dec	V YUQW (x3) DE ASDF (x2) (Cont'd) (Remote tuner Siberia)	JPL	THU

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

This report on the latest situation with M97 & its sister voice station V24 from Token (T!);

I have only been monitoring casually lately. I periodically tune to one of the Asian numbers stations, just to see if they are still chugging along. Last month, early October, 2013, I noticed I was not hearing much from V24 or M94. My assumption was that the schedule I built up at the beginning of the year was just not accurate anymore, and a new schedule was needed. So I started to monitor closely, and build up a new schedule to publish.

What I found is that V24 has almost ceased operation, and no M94 transmissions have been sent, that I am aware of, in over 2 months.

Examples of activity levels. In May of 2013 I heard 62 V24 transmissions, and 4 M94 transmissions. In the last 6 weeks, the second half of October combined with all of November, I have heard eight V24 transmissions and no M94 transmissions at all, in the past I would have expected there to be on the order of 90 V24 transmissions and 6 or more M94's. In that 6+ weeks (part of Oct and all of Nov) monitored every known V24 and M94 frequency, past and present, 24 hours a day. I also looked for new frequencies, and so far found no indication of any in use.

It appears that V24 / M94 has either greatly reduced operations or it has moved a large part of its operations to frequencies / times I have not been able to locate.

(Thanks T!)

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

Firstly, we have an update from Token (T!), monitoring from the Mojave Desert, on recent M97 activity;

November 2013:

Reading the November NL I see that I need to step up coverage of M97, it is a tough pull for European listeners. V30 has also been on the air, although even less often than M97. I see in the NL that the 25 October report (the only M97 transmission in October) was incomplete, I have included the details below.

M97 is still active, although as normal with very sporadic operation. I did notice that last month there was an anomaly in sequence. Please excuse the duplication of some logs, I know some of the following have been reported by other listeners.

I have recorded this frequency at the correct time almost every day for the last 4 years. Unfortunately, while I have the recordings I have not been logging the station well. I have attempted to correct that, and have the last year worth of transmissions in my log here now. Between 17 November, 2012, and 01 December, 2013, there have been 51 transmissions.

As normal for this station (V30 has the same habit) during the reported time period the start time for the first transmission of the day has gotten earlier and earlier each day of operation, normally by a few seconds per week. For example on 25 October the start time for the first message was 1454:11z. Normally when the start time gets to about 1454:00z the operators appear to reset the clock, bringing the start back to about 1500:00z. The next transmission occurred on 27 November, and the start time was 1459:38z, indicating they had reset the clock.

M97 (all apparent transmissions starting 1 June, 2013, logs and recordings before that date available if desired)

10375 kHz	1455z	25 June 2013	(SD 81, SN70, message x3)	Token	TUE
10375 kHz	1455z	09 July 2013	(SD 88, SN 45, message x3)	Token	TUE
10375 kHz	1455z	15 July 2013	(SD 88, SN 45, message x3)	Token	MON
10375 kHz	1455z	17 July 2013	(SD 83, SN 40, message x3)	Token	WED
10375 kHz	1455z	25 July 2013	(SD 83, SN 40, message x3)	Token	THU
10375 kHz	1455z	31 July 2013	(SD 83, SN 40, message x3)	Token	WED
10375 kHz	1454z	09 August 2013	(SD 84, SN 58, message x3)	Token	FRI
10375 kHz	1454z	13 August 2013	(SD 84, SN 58, message x3)	Token	TUE
10375 kHz	1454z	27 August 2013	(SD 84, SN 58, message x3)	Token	TUE
10375 kHz	1454z	28 August 2013	(SD 84, SN 58, message x3)	Token	WED
10375 kHz	1454z	25 October 2013	(SD 83, SN 40, message x3)	Token	FRI
10375 kHz	1500z	27 November 2013	(SD 84, SN 58, message x3)	Token	WED
10375 kHz	1500z	28 November 2013	(SD 84, SN 58, message x3)	Token	THU

Note that the 25 October transmission stepped back to SD 83 when the station had been using SD 84. I double checked that and it is indeed SD 83 SN40 that was sent that day. The next transmission (27 November, 2013) returned to SD84.

December 2013:

M97 started the month of December slowly, with no transmissions from the beginning of the month until December 19. From Dec 19 until today (December 29) there have been 6 transmission. All have been SD 84 and SN 58, the same message it has been sending since August 9 (with the exception of October 25, 2013, for some reason it sent SD 83 SN 40 that day). As normal the start times have been moving forward (earlier) by about 1.3 seconds per day.

M97 (all transmissions this month, to December 29, 2013)

10375 kHz	1459z	19 December, 2013	(SD 84, SN 58, message x3)	Token	THU
10375 kHz	1459z	20 December, 2013	(SD 84, SN 58, message x3)	Token	FRI
10375 kHz	1459z	23 December, 2013	(SD 84, SN 58, message x3)	Token	MON
10375 kHz	1459z	24 December, 2013	(SD 84, SN 58, message x3)	Token	TUE
10375 kHz	1459z	26 December, 2013	(SD 84, SN 58, message x3)	Token	THU
10375 kHz	1459z	27 December, 2013	(SD 84, SN 58, message x3)	Token	FRI

Thanks Token. We are pleased to say that despite the difficulties we have receiving M97 in Europe, which Token rightly mentions, all of the above transmissions were monitored by us with the exception of the 25 July transmission and, of course, the details from the 25 Oct transmission.

Now on to our European reports;

Due to the poor reception of this signal in both the UK and Canada, GlobalTuners receivers at Hong Kong, Mojave Desert & Sydney - as well as the Twente SDR, were used frequently to confirm the msg detail. Reception in S.E. England is still quite variable - though improving as winter moves in.

We have been more successful this time with logging M97, even though it has appeared only rarely. On Wed 27 Nov the station was heard sending msg no. SD84, so the good news is that we haven't missed any new msgs.

Msg No, SD84 was first aired on Fri 09 Aug, then subsequently repeated on 13, 27 & 28 Aug.

It is also noted that the time has now been corrected, as predicted by Token (T!), with the time slip corrected back to a 1500z start, also that the time between the three sendings of the msg has been reduced from 60 seconds to approx 15 seconds.

10375	1500 - 1520z	27 Nov	SD84 SN58	Good sig Via Twente online Rx	BR	WED
	1500 - 1520z	28 Nov	SD84 SN58	Fair Sig Via Twente. Weak into S.E. UK	BR	THU
	1500 - 1520z	19 Dec	SD84 SN58	Good sig Via Twente. Weak into S.E. UK	BR	THU
	1500 - 1520z	20 Dec	SD84 SN58	Fair sig Via Twente.	BR	FRI
	1500 - 1520z	23 Dec	SD84 SN58	Fair sig Via Twente. Weak into S.E.UK	BR	MON
	1500 - 1520z	24 Dec	SD84 SN58	Good sig Via Twente.	BR	TUE
	1500 - 1520z	26 Dec	SD84 SN58	Fair sig Via Twente.	BR	THU
	1500 - 1520z	27 Dec	SD84 SN58	Good sig Via Twente.	BR	FRI

SO DIEN:84 SO DIEN :84 SO DIEN:84

DK: HT HT HT

SO NHOM:58 SO NHOM:58 SO NHOM :58

AAAAAAAAAAAAAAAAAAAAAAAAAA

99324 20677 08739 99636 96965
54484 33165 73144 79429 78620
39915 66546 27757 78700 97238
14506 06185 28529 91347 58476
97654 04920 77677 68494 68775
93995 42047 83420 12029 65119
62117 43236 17108 82136 13364
29498 76417 98320 89878 18024
87216 10241 89350 23597 51616
09230 40880 03965 97942 45682
02439 57570 98181 13039 13354
64933 37672 27264

KKKKKKKKKKKKKKKKKKKKKKKKK

Courtesy BR

Marker Beacons (MX MXI)

6917.5	1700z	03 Nov	MX CW Beacon 'L'			BR	SUN
7038.9	1418z	13 Dec	MXI CW Beacon 'S'			BR	FRI
7039	1420z	13 Dec	MXI CW Beacon 'P'			BR	FRI
16332.3	0030z	28 Nov	MXI CW Beacon 'K'	Petropavlovsk	QSA 2	DanAR	THU
16332.4	0030z	28 Nov	MXI CW Beacon 'M'	Magadan	QSA 3	DanAR	THU

Thanks to Eddie for the additional info on the locations of these beacons.

Contributors: AnonUS, BR, CB, CHPA, DanAR, FN, GD, Gert, HFD, HT, JPL, madcat, PLdn, RNGB, Spectre, Token, Topol, tiNG, westt1us

Thank you all for your logs - and thanks to all of you who have supplied Morse logs over the year.

Hybrid Mode

Our Cuban Desk offers this log:

HM01 11435kHz 1600z 1/11 [84857 17624 50553 75636 05042 12834] FRI
HM01 11435kHz 1600z 2/11 [84858 17625 50554 77451 05043 12835] SAT
HM01 11435kHz 1600z 4/11 [04422 17627 50556 77453 05045 12837] MON
HM01 11435kHz 1600z 5/11 [04423 47211 50556 77453 05046 12837] New callup position 2 47211 = 15753344.TXT TUE
HM01 11435kHz 1600z 6/11 [04424 47212 50558 77455 06011 07161] New callups position 5 and 6 06011 = 54248720.TXT 07161 = 74765176.TXT WED
HM01 11435kHz 1600z 7/11 [04425 47213 85461 24571 06012 07162] New callups position 3 and 4 85461 = 28252175.TXT 24571 = 65865815.TXT THU
HM01 11435kHz 1600z 8/11 [37701 47214 85462 24572 06013 07163] New callup positi0n 1 37701 = 58241661.TXT FRI
HM01 11435kHz 1600z 9/11 [37702 47215 85463 24573 06014 07164] SAT
HM01 11435kHz 1600z 10/11[37703 47216 85464 24574 06015 07165] SUN
HM01 11435kHz 1600z 11/11[37704 47217 85465 24575 47351 07166] New callup position 5 47351 = 58166348.TXT MON
HM01 11435kHz 1600z 12/11[37705 34811 85466 11131 47352 07167] New callup positions 2 and 4 34811 = 78665480.TXT 11131 = 10134467.TXT TUE
HM01 11435kHz 1600z 13/11[37705 34811 85466 11131 47352 07167] Several false starts. Same callups as 12/11 WED
HM01 11435kHz 1600z 14/11[37706 34812 85467 11132 47353 07168] THU
HM01 11435kHz 1600z 15/11[37707 34813 73541 11133 47354 32321] New callups positions 3 and 6 73541 = 18870052.txt 32321 = 27271474.TXT FRI
HM01 11435kHz 1600z 16/11[88601 34814 73542 11134 47355 32322] New callup position 1 86601 = 86658764.TXT SAT
HM01 5855kHz 0500z 17/11[88601 34814 73542 11134 47355 32322] SUN
HM01 11435kHz 1600z 17/11[88602 34815 73543 11135 27801 32323] New callup position 5 27801 = 18870052.TXT MON
HM01 11435kHz 1600z 18/11[88603 34816 73544 11136 27802 32324]
HM01 10340kHz 0500z 19/11 Very weak but RDFT tones and callups are just audible. Continued through 1000z time slot. TUE
HM01 11435kHz 1600z 19/11[88604 34817 73545 37451 27803 32325] New callup position 4. 37451 = 68353180.txt TUE
HM01 10715kHz 0500z 20/11 Very weak but RDFT tones and callups are just audible. Continued through 1000z time slot. WED
HM01 11435kHz 1600z 20/11[88605 56511 73546 37452 27804 32326] New callup position 2 56511 = 66072508.txt WED
HM01 11565kHz 0500z 21/11 Very weak but RDFT tones and callups are just audible. Continued through 1000z time slot. THU
HM01 11435kHz 1600z 21/11[88606 56512 46771 37453 27805 71261] New callups positions 3 and 6 46771 = 00668381 71261 = 78425132.txt THU
HM01 5930kHz 0500z 22/11 FRI
HM01 11435kHz 1600z 22/11[88606 56512 46771 37453 27805 71261] Same callups as yesterday FRI
HM01 11435kHz 1600z 23/11[83381 22574 15441 50182 08444 51835] Same callups and files as 8/10. Windows XP "Ding" clearly heard before "Uno" repeated about 30 times then into callups. SAT
HM01 11635kHz 2100z 23/11[88606 56512 46771 37453 27805 71261] and [83381 22574 15441 50182 08444 51835] simultaneously SAT
HM01 11435kHz 1600z 24/11 Only callup 56511 heard they seem to have incremented backwards. SUN
HM01 11435kHz 1600z 25/11[88605 56511 73546 37452 27804 32326] Callups have incremented backwards from 86606 etc on 22/11 MON
HM01 11435kHz 1600z 26/11[88605 56511 73546 37452 27804 32326] Same callups as yesterday. TUE
HM01 11435kHz 1600z 27/11[88605 56511 73546 37452 27804 32326] WED
HM01 11435kHz 1600z 28/11[88606 56512 46771 37453 27805 71261] THU
HM01 11435kHz 1600z 29/11[88606 56512 46771 37453 27805 71261] FRI
HM01 11435kHz 1600z 30/11[88606 56512 46771 37453 27805 71261] SAT
HM01 11435kHz 1600z 1/12 [88606 56512 46771 37453 27805 71261] SUN
HM01 11435kHz 1600z 2/12 [88606 56512 46771 37453 27805 71261] MON
HM01 11435kHz 1600z 3/12 [88606 56512 46771 37453 27805 71261] Started with "Uno" R17 then "Dos" R5 then Uno R39. Into message, second round of callups broke into the final RDFT transmission for 71261. TUE
HM01 11435kHz 1600z 4/12 [88606 56512 46771 37453 27805 71261] WED
HM01 11435kHz 1600z 5/12 [88606 56512 46771 37453 27805 71261] FRI
HM01 11435kHz 1600z 7/12 [40221 82855 83383 40843 04243 44655] New callups 40221 = 51680555.txt, 82855 = 33201606.txt 83381 = 31188338.txt 40843 = 02683115.txt, 04243 = 75402652.txt 44655 = 78557883.txt. Note callup 8338 has been seen previously in position 1. The same 678 byte message was transmitted in that case. SAT
HM01 11435kHz 1600z 8/12 [17684 73662 05664 77332 28332 02635] All new callups 17684 = 41004417.TXT and 55006866.txt (See note below), 73662 = 41004417.txt, 05664 =82452683.txt, 77332 = 55713063.txt, 28332 = 38044827.txt , 02635 = 27675251.txt Anomaly in this TX. After the callups the first RDFT sending for 17864 contains two RDFT trasnmissions and is 1 minute long instead of 30 seconds. SUN
HM01 11435kHz 1600z 9/12 [17684 73662 05664 77332 28332 02635] MON
HM01 11435kHz 1600z 10/12 [10755 48641 04062 15067 88344 46447] 10755 = 60537403.txt 48641 = 60106008.txt 04062 = 16170712.txt 15067 = 56875885.txt 88344 = 63665143.txt 46447 = 81021024.txt TUE
HM01 5855kHz 0500z 11/12 [56801 22574 15441 50182 08444 51835] WED
HM01 11435kHz 1600z 11/12 [10756 48642 04063 05171 88345 45631] New callups in position 4 and 6, 05071 = 45715871 45631 = 76262467.TXT WED
HM01 11435kHz 1600z 12/12 [56351 48643 04064 05172 88346 45632] New callup position 1 56351 = 75163657.txt THU
HM01 11435kHz 1600z 13/12 [56352 48644 04065 05173 88347 45633] FRI
HM01 11435kHz 1600z 14/12 [56353 48645 32751 05174 10651 45634] New callups positions 3 and 5 32751 = 21484781.TXT 10651 = 77277380.TXT SAT
HM01 11435kHz 1600z 15/12 [56354 48646 32752 05175 10652 45635] SUN
HM01 11435kHz 1600z 16/12 [56355 26301 32753 05176 10653 45636] New callup position 2 26301 = 20142148.txt MON
HM01 11435kHz 1600z 17/12 [56356 26302 32754 05177 10654 45637] TUE
HM01 11435kHz 1600z 18/12 [56357 26303 32755 05178 10655 26051] New callup position 6 26051 = 02521320.txt WED
HM01 11435kHz 1600z 19/12 [56358 26304 12001 02451 10656 26052] New callup positions 3 and 4 12001 = 77003426.txt 02451 = 02533104.txt THU
HM01 11435kHz 1600z 20/12 [64581 26305 12002 02452 10657 26053] New callup position 1 64581 = 36860825 FRI
HM01 11435kHz 1600z 21/12 [64582 26306 12003 02453 10658 26054] Came up with spanish broadcast in pr SUN
HM01 11435kHz 1600z 23/12 [64584 26308 12005 02455 23532 26056] MON
HM01 11435kHz 1600z 24/12 [64585 63501 12006 16031 23533 26057] New callups Position 2 and 4 63501 = 33748767.txt 16031 = 55606110.txt TUE
HM01 11435kHz 1600z 25/12 [64586 63502 12007 16032 23534 26058] WED
HM01 11435kHz 1600z 26/12 [64587 63503 12008 16033 23535 48831] New callup position 6 48831 = 53883160.txt THU
HM01 11435kHz 1600z 27/12 [80581 63504 70471 16034 61781 48832] New callups positions 1, 3 and 5 80581 = ????? 70471 = 83761525.txt 61781 = ????? FRI
HM01 11435kHz 1600z 28/12 [80582 63505 70472 16035 61781 48833] SAT

Following on is PoSW's view of this hybrid mode:

Somewhat variable results from the Cuban mixed-mode station, signal strength, audibility due to depth of modulation and appearance on the expected frequency at the appointed time have all been issues in the last couple of months.
10-Nov-13, Sunday:- 0742 UTC, 9,330 kHz, transmission in progress, S8 to S9 but audio very low. Carrier went off after 0758 UTC.
0759 UTC, 9,065 kHz, S9 carrier but audio low, became a bit clearer during the call-up, "37702 47215 85463 24573 06014 07164". Data started after 0802 UTC.

17-Nov-13, Sunday:- 0759 UTC, 9,065 kHz, "32322 88601 34814 73542 11134 47355", Peaking S9 with good audio.

24-Nov-13, Sunday:- 0718 UTC, 9,330 kHz, transmission in progress, S9 with deep QSB. Heard 5Fs "27804 32326 88605 56511 73546 37452".
0758 UTC, 9,065 kHz, "88605 56511 73546 37452 27804 32326". Several pauses at the start of the call-up routine. S9 with good audio.
0858 UTC, 9,065 kHz – started up on 9,065 again, 5F groups as earlier, vanished after 0900 UTC and came up on the correct frequency, 9,240 kHz.
0958 UTC, 9,155 kHz, 5Fs as earlier, S9 with the usual fading up and down, Data started 1001 and 45s UTC.

25-Nov-13, Monday:- 0640 UTC, 10,345 kHz, transmission in progress, S9 with good audio,
heard 5F groups, "32326 88605 56511 73546".
0659 UTC, 9,330 kHz, "88605 56511 73546 37452 27804 32326". S9+ with good audio, weak broadcast station heard underneath.

29-Nov-13, Friday:- 0643 UTC, 10,345 kHz, transmission in progress, S9 with QSB and good audio. Heard 5F groups, "50182 08444 51835 56801 22574 15441"
0700 UTC, 9,330 kHz, must have started early, was already in data mode when tuned in a few seconds before the hour.

1-Dec-13, Sunday:- 0758 UTC, 9,065 kHz, "88606 56512 46771 37453 27805 71261".

4-Dec-13, Wednesday:- 0653 UTC, 10,345 kHz, transmission in progress, S9 with deep QSB,
heard 5F group, "27805".
0659 UTC, 9,330 kHz, "88606 56512 46771 37453 27805 71261". S9 with QSB, data at 0701 and 40s UTC.

Thanks PoSW

HM01 [November]

11530kHz2300z	03/11[04421 17626 50555 77452 05044 12836] QSA3	DanAR	SUN
11530kHz2300z	08/11[37701 47214 85462 24572 06013 07163] QSA3	DanAR	FRI
11530kHz2300z	10/11[37703 47216 85464 24574 06015 07165] QSA3	DanAR	SUN
11530kHz2300z	11/11[7704 47217 85465 24575 47351 07166] QSA3	DanAR	MON
11530kHz2300z	13/11[37705 34811 85466 11131 47352 07167] QSA3 QBS2	DanAR	WED
11530kHz2300z	24/11[37452 27804 32326 88605 56511 73546] QSA3	DanAR	SUN

11635kHz2100z	10/11	Spectre	SUN

The station was broadcasting over the top of Voice of Korea. However when tuning to the later transmissions at 10715kHz 2200z and 11530kHz 2300z the carrier was present but with no audio, possibly through poor reception.

16180kHz2100z	12/11[37705 34811 85466 11131 47352 07167] QSA3	DanAR	TUE
16180kHz2100z	14/11[37706 34812 85467 11132 47353 07168] QSA3 QBS2	DanAR	THU
16180kHz2054z	19/11	SH	TUE

16180 CUBA Numbers Station HM-01 tuned in 2054 and carrier no audio. 2059 sign on with preamble by Female synthesized voice in Spanish with a series of six different five digit numbers repeated over and over and at at 2101 numbers stopped for several seconds then resumed then stopped (sounded like audio cutting out) and then resumed. At 2102 RDFT data transmissions alternating with five digit number. Tuesday 11/19/13 -Steve

17480kHz2250z	05/11	SH	TUE

17480 CUBA Numbers Station HM-01 tuned in to broadcast in progress at 2250 until 2255 abrupt end of broadcast (at end of RDFT transmission) with female synthesized voice in Spanish with with five digit number alternating in between RDFT data transmissions excellent signal, good modulation. Then at 2259 signed back on with female synthesized voice in Spanish doing the preamble consisting of a series of 5 digit numbers which abruptly ended at 2300 GMT. Checked all other known HM-01 frequencies at 2300 and several times during the 2300 hour and could not find their broadcast. Tuesday 5 Nov 2013-Steve

17540kHz2300z	02/11[84858 17625 50554 77451 05043 12835] QSA3	DanAR	SAT
17540kHz2300z	16/11[88601 34814 73542 11134 47355 32322] QSA3 QSB1	DanAR	SAT
17540kHz2300z	21/11[88606 56512 46771 37453 27805 71261] QSA3 QSB1	DanAR	THU
17540kHz2320z	23/11[88606 76712 46771 37453 27805 71261) QSA3	DanAR	SAT
17540kHz2320z	23/11[83831 22754 15441 50182 08444 51835) QSA3	DanAR	SAT

Pedro did a good mix : rfdt data , numbers (like V02a) and numbers & rfdt .

17540kHz2300z	26/11[37452 27804 32326 88605 56511 73546] QSA3	DanAR	TUE
17540 kHz2300z	30/11[88606 56512 46771 37453 27805 71261] QSA2 QRN2	DanAR	SAT

December

10715kHz2200z	13/12[56352 48644 04065 05173 88347 45633] QSA3	DanAR	FRI

10715kHz2200z	16/12[56355 26301 32753 05176 10653 45636] QSA4	DanAR	MON

11435kHz1600z	08/12 WEAK	MCF	SUN

11530kHz2300z	01/12[88606 56512 46771 37453 27805 71261] QSA3	DanAR	SUN
11530kHz2300z	15/12[56354 48646 32752 05175 10652 45635] QSA3	DanAR	SUN
11530kHz2300z	22/12[64583 26307 12004 02454 23531 26055] QSA2	DanAR	SUN
11530kHz2300z	27/12[80581 63504 70471 16034 61781 48832] QSA3	DanAR	FRI

16180kHz2100z	14/12 strong	Rich	SAT

17480kHz2200z	05/12[51835 56801 22574 15441 50182 08444] QSA2	DanAR	THU

17480kHz2155z	10/12 AM Carrier, then one group with DIGTRX burst, then back to carrier; fading s9+10 to s8; good audio	HS	TUE
2157z	10/12 AM callup 10755 4864104062 15067 88344 46447, into mixed voice & RDFT at 2202 cut 2254	HS	TUE

17480kHz2300z	24/12[64585 63501 12006 16031 23533 26057)] QSA3	DanAR	TUE

17540kHz2300z	05/12[51835 56801 22574 15441 50182 08444] Mix of numbers & rfdt . QSA3	DanAR	THU

17540kHz2300z	07/12[51835 56801 22574 15441 50182 08444] QSA3	DanAR	SAT
17540kHz2259z	10/12 AM In progress, same callup, low audio, nothing on 11530	HS	TUE
17540kHz2300z	12/12[56351 48643 04064 05172 88346 45632] QSA2	DanAR	THU
17540kHz2300z	21/12[64582 26306 12003 02453 10658 26054] QSA3	DanAR	SAT

VOICE STATIONS

E06

We open with PoSW's logs: As expected, seasonal changes to frequencies in November.

First + Third Thursdays in the Month 2030 UTC Schedule:-
7-Nov-13:- 4,836 kHz, calling "321" with good audio. DK/GC, and a big surprise here, "790 790 20 20". A group count of "20"; has been 15 for ages - several years in fact! S9 signal, ended before 2038z with the usual DKDK GCGC and "00000".

21-Nov-13:- 4,836 kHz, something not quite right this evening, carrier only with no voice at first. Voice was up when checked again after 2039 UTC repeating "0 1 2 3 4" then went into 5F groups with that "rasping" distortion. Did not finish until after 2047 UTC.

5-Dec-13:- 4,836 kHz, no voice heard until 2032 UTC, appeared to be carrier only until then, call "472", DK/GC "691 691 20 20". Group count of "20 " continues then. With distorted speech.

Friday Following the First + Third Thursdays in the Month, 2130 UTC Schedule:-
8-Nov-13:- 4,760 kHz, calling "472", good audio but a surprisingly weak signal. Voice appeared to stop during the call-up and continued with plain carrier only.

22-Nov-13:- 4,760 kHz, weak signal and local interference, no voice heard, gave up!

6-Dec-13:- 4,760 kHz, carrier only until approx. 2133 UTC, appeared to go into 5F groups without call-up or DK/GC. Ended just before 2137 UTC with "691 691 20 20 00000", looks like the same message as yesterday's 2030 UTC transmission, see above.

First + Third Thursdays in the Month 0600 + 0700 UTC Schedule:-
7-Nov-13:- 0607 UTC, 16,200 kHz, first sending in progress. Peaking S6, ended 0623 UTC with "689 689 112 112 00000".
0700 UTC, 18,200 UTC, second sending, call "507", frequencies as predicted.

8-Nov-13, Friday:- 0600 UTC, 16,200 kHz, and 0700 UTC, 18,200 kHz, the "next day repeats", both S6 to S7.

21-Nov-13:- 0618 UTC, 16,200 kHz, suddenly realised it was the third Thursday in November! Transmission in progress, ended 0623 UTC with "689 689 112 112 00000".
0700 UTC, 18,200 kHz, second sending starting with "507" call-up.

22-Nov-13, Friday:- 0600 UTC, 16,200 kHz, "next day repeat", very weak signal.
0700 UTC, 18,200 UTC, second sending, much stronger.

5-Dec-13:- 0700 UTC, 15,943 kHz I made it, call "923", DK/GC "576 576 108 108". S4 at best.

6-Dec-13, Friday:- 0600 UTC, 13,910 kHz, first sending, very weak signal of some kind on the predicted frequency 13,910, unable to confirm as first sending of E06.
0700 UTC, 15,940 kHz, second sending, surprisingly strong, up to S9.

Second Wednesday in the Month 1920 + 2020 UTC Schedule:-
13-Nov-13:- 1921 UTC, 3,526 kHz, started over a minute late, "218 218 218 00000".
Had the unpleasant "rasping" effect, for want of a better description, on the audio.
This frequency used in January and February of 2013, inside 80 metre amateur band but no ham stations close by. Carrier was up on 3,526, presumably E06 warming up, when checked at 1825z.
2020 UTC, 3,729 kHz, second sending, started early, in progress when tuned in just before 2020z. Also with distorted audio and inside the 80 metre band. Several carriers beating with E06, perhaps amateurs expressing displeasure at an intruder, but not having much effect on the OM S9 signal.

11-Dec-13:- 1919 UTC, started early, 3,526 kHz, "218 218 218 00000". S9 signal with good audio - none of the distortion noted on previous occasions, weak amateur CW on close frequencies.
2019 and 30s UTC, another early start, 3,729 kHz, second sending, S9 with good audio.

Sunday Following the Second Wednesday in the Month, 1120 + 1220 UTC Schedule:-
15-Dec-13:- 1120 UTC, 7,316 kHz, "218 218 218 00000", S5 with good audio. Almost forgot to monitor this, just caught the last minute or so>
1220 : 20s UTC, 6,814 kHz, second sending, stopped after 1223 UTC according to my MSF controlled clock; started late and finished early. S5 with good audio. These frequencies were used in January.

Now, onto other's logs:

4760kHz 2130z	08/11[472 Call Heard Only] 2138z Weak QRN4 QSB4		Spectre	FRI
4836kHz2030z	07/11[321 790 20 16851 … 19835 790 20 00000(s)] Fair, QRM3/4	(8m00s)	M8, Spectre	THU

321 790 20
16891 48987 94626 81739 10637
53082 90281 96542 81135 91035
56432 14409 05287 23472 11233
98430 82875 63427 49641 19835
790 20 00000 *Courtesy M8, Spectre*

4836kHz2037z	21/11[01234 (R31) 012345 10687 10637 57082 ----- ----- ----- 56545] 2041z Strong > weak, QSB3 (6m38s)	PLdn	THU

Some very hard work by Marco produced an excellent log of E06 trials, tribulations and possibly an operator faux pas:

10755kHz1200z	14/11[975...14980 23317 29104 24384 86618 22613 29830 42889 21795 53032 61159 28424 57471 89305 21337 70131 03996 812 pause 975 pause 975 28424 57471 89305 21337...03906 81291 25250 45451 38576 40099 28811 10783 02367 42283 43677 43815 55861 25540 09482 73453 7]1213z S9+10 (OM rpt x2)	MP	THU
10755kHz 1214z	14/11[975]1215z S9+10	MP	THU
10755kHz 1217z	14/11[975 43677 43815 55861 25540 09482 73453 72269 74349 15778 58278 73569 18986 90873 99477 38925 96357 99753 99193 40153 46093 460..pause..266 00213 83929 4031]1224z S9+10	MP	THU
10755kHz 1224z	14/11[975 96357 99753 99193 40153 46093 18266 00213 83929 40317 628 51 00000]1227z S9	MP	THU
10755kHz 1431z	14/11[975]1433z S9+10	MP	THU
10755kHz 1434z 1	14/11[975..]1438z S9+10	MP	THU
10755kHz 1438z	14/11[733 94]1438z S9+10	MP	THU

[975
50008 89107 94733 78031 17918
97266 33174 31406 55409 61554
57403 59773 99662 26437 57604
28278 22560 57158 64162 84723
17495 67535 55425 42114 30811
70911 81184 39805 86311 96429
12811 37955 76264 37829 55998
24964 17358 26956 87032 42591
95023 310 54 00000]

First part of the message was:

Transcript:
[975 310 54
48670 20350 38824 03971 80493
76767 49885 16529 91565 83584
91540 14134 83556 50008 8 ..4733 94]

Videos [well worth watching]:

http://www.youtube.com/watch?v=5OWEwKFGX-k

http://www.youtube.com/watch?v=-H0WhAcmxO8

http://www.youtube.com/watch?v=xtGXGXWOqvQ

http://www.youtube.com/watch?v=nYGyk4xwddE

Again at ~1430z same frequency 10775KHz:

http://www.youtube.com/watch?v=AZx35yqww2c

http://www.youtube.com/watch?v=2JXzvW9Ambg

Thanks Marco, excellent log indeed.

Further information suggests a repeat either earlier or later on 9073kHz. This ID is believed to be another one used for training as it is always screwing up. In October it was using M24 mode! Another one of these 'trainers' is ID 801 (uses E06, M24 etc)

And from a non-member, this interesting piece for which we require proper log info [the email header read 'E06 transcript 21Nov2013 0700 UTC' which means something is not quite right here – either a wind up of a serious typo]:

"I'm a SWL who uses the WebSRD at Twente University, using the pseudo-callsign 73QRT. On the night of November 20th, I transcribed the following twenty minute transmission from E06 on 18200 khz USB. KI6USU Justyn-1 who was in the chat room at the time, suggested I submit it to the Enigma group. It is of little value, but it makes the poor guy happy."

507 689 112 64967 72886 79131 44444 46450 95379 64145 79072 86779 03493 67016 54870 22485 13148 08741 19701 72517 16839 15437 97401 97258 97397 80918 30356 50191 05131 46154 45544 51947 46782 37810 16021 41397 59746 33063 53722 83480 69969 42873 94575 38465 56985 30895 61816 22314 74511 10231 18477 12858 00056 85188 44966 81453 11960 30260 02688 54817 17320 23490 69627 36727 79232 76422 58855 44265 16783 27824 55873 38311 76234 93354 35744 52950 96838 88395 45952 53503 19720 66199 65913 77847 13259 38561 79092 40742 13415 71198 18647 05807 02437 71028 72553 54885 74379 07521 59133 09448 60880 35325 08934 83732 15627 10354 13894 74314 80951 16508 29726 15794 84992 45238 42467 689 112 00000

10755kHz1443z	16/11 [In Progress] 1450z Strong QRN3 QSB3	Spectre	SAT

December:

3526kHz1920z	11/12[218 00000] Fair audio	HJH, FR	WED
2020z	11/12[218 00000] Very strong signal, moderate noise	FR	WED
4760kHz2129z	20/12[472 691 0] once only, fair and noisy	PLdn	FRI

4760kHz2130z	20/12[472 691 20 81249 ... 89636] Strong and noisy 2139z	M8,PLdn	FRI

472 691 20
81249 09517 93028 65982 25187
61573 36043 39625 10466 81511
23803 48616 62374 28657 54375
71483 69205 52381 42427 89636
691 20 00000 *Courtesy M8*

4836kHz 2030z	05/12[472 691 20 81049 ... 89636 691 20 00000(s)] 2038z Weak QRN3 QSB2	Spectre	THU

E06 4836kHz 2030z 05/12 Transcript:

472 691 20
81049 09517 93028 65982 25187 61573 36243 39625 10466 81511
23803 48616 60374 *8697 54375 71483 69**5 52381 40407 89636
691 20 00000 *Courtesy Spectre*
* = Not Heard.

6816kHz1220z	15/12[218x3 00000.....]1223z S1	M8	SUN
7316kHz1120z	15/12[218x3 00000.....]1123z S1	M8	SUN

Finally, RNGB's logs:

E06 November log:

Thurs 7th	07:00	18200	'507' 689 112 64967 72886 79131 44444 46450 95379.....42467
	20:30	4836	'321' 790 20 16891 48987 94626 81739 10637.....19835
Friday 8th	06:00	16200	'507' 689 112 64967 72886 79131 44444 46450 95379.....42467
Weds 13th	20:20	3729	'218' 00000
Sun 17th	12:20	6814	'218' 00000
Weds 11th	19:19	3526	'218' 00000
Mon 16th	08:05	10755	'975' 108 29

E06 December log:

Thurs 19th	07:00	15930	'923' 576 108 32729 65164 46199 35946 83799.....15792
	21:30	4760	'472' 691 20 81249 09517 93028 65982 25187.....89636

E07 November:

PoSW's logs to start:

Sunday + Wednesday Schedule, 1800 UTC Start:-
3-Nov-13, Sunday:- 1800 UTC, 8,153 kHz, "184 184 184 000", S9+ with good audio.
1820 UTC, 6,853 kHz, second sending, weaker signal.

6-Nov-13, Wednesday:- 1800 UTC, 8,153 kHz, "184 184 184 1" for a "full message", and quite a long one. DK/GC "599 145" x 2. S9 with reasonable audio.
1800 UTC, 6,853 kHz, second sending, audio low in relation to carrier strength.
1840 UTC, 5,453 kHz, third sending, low audio and close to the SSB station formerly trading as "RAF VOLMET", making for difficult copy.

13-Nov-13, Wednesday:- 1800 UTC, 8,153 kHz, "184 184 184 000", flattened by a strong "XJT", must be new, it wasn't there last week.
1820 UTC, 6,853 kHz, second sending, audio low but readable.

17-Nov-13, Sunday:- 1800 UTC, 8,153 kHz, calling up for a "full message", strong "XJT" making copy a pain.
1820 UTC, 6,853 kHz, "184 184 184 1", DK/GC "135 81" x 2, much better, good signal on a clear frequency.
1840 UTC, 5,423 kHz, third sending, interference from SSB on 5,450 kHz, OK with receiver in USB mode.

24-Nov-13, Sunday:- 1800 UTC, 8,153 kHz, "184 184 184 1" DK/GC "934 103" x 2. S9+ with reasonable audio.
1820 UTC, 6,853 kHz, second sending, audio low but readable.
1840 UTC, 5,453 kHz, third sending, "XJT" on very close frequency, not noted before, the SSB station on 5,450 unusually weak.

1-Dec-13, Sunday:- 1809 UTC, 7,464 kHz, first sending not found until nine minutes into a "full message", - unlike other E07 schedules this one is not using the same frequencies as in the same months of past years - heterodyne with a broadcast station, low audio, generally unreadable, managed to hear "000 000" and carrier off 1813 UTC.
1820 UTC, 5,864 kHz, second sending, again only 1kHz away from a strong BC station, that Chinese music thing with some kind of reed instrument and lots of percussion, actually
used to jam broadcasts from Western broadcasters such as Radio Free Asia, I think.
1840 UTC, 4,564 kHz, third sending, the only one which was readable, "485 485 485 1", DK/GC "934 103" x 2. S9+ with reasonable audio.

Monday + Wednesday Schedule, 2000 UTC Start:-
4-Nov-13, Monday:- 2000 UTC, 7,724 kHz, "798 798 798 000". S9, audio low but readable.
2020 UTC, 6,924 kHz, second sending, S9 with QSB. Same frequencies as in November of past years, third sending in event of "full message" should be 5,824 kHz.

20-Nov-13, Wednesday:- 2000 UTC, 7,724 kHz, very weak signal, unreadable, carrier went QRT just before 2006 UTC.
2020 UTC, 6,924 kHz, second sending, also very weak and unreadable.
2040 UTC, 5,824 kHz, third sending, the only one which was readable, "798 798 798 1", DK/GC "592 33" x 2. Up to S9 with QSB.

25-Nov-13, Monday:- 2000 UTC, 7,724 kHz, first sending very weak signal and unreadable again.
2020 UTC, 6,924 kHz, second sending, much better, "798 798 798 1", DK/GC "897 55" x 2. S8 to S9, reasonable audio.
2040 UTC, 5,824 kHz, third sending, low audio but readable.

2-Dec-13, Monday:- 2000 UTC, 7,478 kHz, should be the first sending of the December schedule, very weak signal of some kind on 7,478 too weak to confirm as E07.

2020 UTC, 6,778 kHz, second sending – and a "two message" transmission, haven't logged one of those for some time! "472 472 472 2", first DK/GC "330 33" x 2, at 2026 UTC call-up routine again followed by second DK/GC "897 55" x 2. Peaking S9 but fading down to much weaker level making copy difficult at times.
2040 UTC, 5,278 kHz, third sending, low audio and deep QSB.

9-Dec-13, Monday:- 2000 UTC, 7,478 kHz, very weak signal, unreadable.
2020 UTC, 6,778 kHz, second sending, also very weak.
2040 UTC, 5,278 kHz, third sending, "472 472 472 1", low audio and local QRM, difficult copy, group count sounded like "45".

Thursday Schedule, 2110 UTC Start:-
7-Nov-13:- 2110 UTC, 6,777 kHz, "744 744 744 000", strong "XJT" on close frequency, reasonable copy in LSB mode.
2130 UTC, 5,449 kHz, second sending, S9+ carrier, audio somewhat low.

14-Nov-13:- 2110 UTC, 6,777 kHz, "744 744 744 000", S9 with better than usual audio.

5-Dec-13:- 2110 UTC, 6,777 kHz, "744 744 744 000".

Other's logs:

5449kHz2130z	07/11[744 000] Fair, QRM3 (6777kHz 2110z XJTQRM5)	(2m23s)	PLdn	THU
2130z	28/11[744 000] Weak, noisy		PLdn	THU
5453kHz1840z	17/11[184 1 135 81 73165 . . . 60650 000 000]		tiNG	SUN
1840z	24/11[NRH]		M8	SUN
5824kHz 2040z	27/11[798 1 nnnn nn 9418 … 0898004 000 000] Weak, noisy. Some characters not hear	(8m08s)	PLdn	WED
6777kHz2110z	28/11[744 000] Fair, noisy		PLdn	THU
6853kHz1820z	17/11[184 1 135 81 73165 . . . 60650 000 000]		tiNG	SUN
1820z	24/11[184x3 1 too weak to copy[1829z S1		M8	SUN
6924kHz2020z	04/11[798x3 000.....]2022z S4		M8	MON
7724kHz2000z	04/11[798x3 000.....]2002z S9		M8	MON
8153kHz1800z	17/11[184 1 135 81 73165 . . . 60650 000 000]		tiNG	SUN
0800z	24/11[184x3 1 too weak to copy]1809z S1		M8	SUN

December:

4564kHz1840z 15/12 [485 1 301 119 84009.....2536?] 1854z Very Weak QRM3		Topol, M8	SUN

485 1 301 119
84009 49285 66566 51509 8?714 81128 46754 87964 01044 59617
86568 01155 66267 61095 08565 32645 67194 11157 25248 05601
08143 45971 00225 99225 36859 70941 04272 27763 88482 03719
51125 65442 2240? 12036 79593 83935 44778 32544 94897 27331
35911 60324 05795 80914 10839 88192 93862 65372 95975 72060
11374 18358 94489 88283 52294 47278 94704 241?5 92568 96004
33166 86315 88619 16189 59210 67201 52072 70204 35685 31757
81?02 03397 20895 28211 42810 25?08 05453 04680 03035 01134
38618 07410 00519 17019 93189 85?84 33588 35620 40870 81764
24484 18979 16113 37369 06342 30181 51955 52188 32011 76551
60972 60517 49217 813?? 61?98 60263 57478 07500 66008 91023
86365 98139 03532 88429 04120 32647 72042 10010 2536?
000 000
Note: Very weak, with bad fading. Took 4 listens to get the above
Courtesy Topol

5278kHz2040z	11/12 [-] Strong signal, noise too strong to copy message, some fading	FR	WED
5449kHz2130z	05/12[744 000] 2132z Very Weak	Topol	THU
5864kHz1820z	15/12[985? 1.....too weak to copy 000 000]1834z S1	M8	SUN
6778kHz2020z	11/12[-] Strong carrier but audio volume too low to copy, moderate/strong noise, fading	FR	WED
2020z	18/12[472 000] Weak	PLdn	WED
7464kHz1800z	15/12[985? 1.....too weak to copy 000 000]1814z S1	M8	SUN
7478kHz2000z	11/12 [-] Very strong noise, no audio heard, strong carrier	FR	WED

RNGB's logs:

E07 November log:

Sun 3rd	18:00	8153	'184' 000
Mon 4th	20:00	7724	'798' 000
Weds 6th	18:00	8153	'184' 000
	18:20	6853	'184' 000
	20:00	7724	'798' 000
Thurs 7th	21:30	5449	'744' 000
Weds 13th	18:00	8153	'184' 000
Sun 24th	18:20	6853	'184' 1 934 103 03681 53107 30182.....
Sun	18:40	5453	'184' 1 934 103 03681 53107 30182.....
Mon 25th	20:00	7724	'798' 000

E07 log December:

Sun 8th	18:00	7464	'485' 000
	18:20	5864	'485' 000
Sun 29th	18:40	4564	'485' 1 877 141 61051 35602 79985.....18510

E07a November

We open with RNGB's logs, followed by others and thence onto PoSW's logs and analysis:

E07a November log:

Weds 6th	21:00	5864	'815' 000
Sat 9th	08:00	11553	'515' 000
	08:20	12153	'515' 000
Weds 13th	21:00	5864	'815' 000
Sat 16th	09:00	11553	'515' 000
Friday 22nd	16:10	8138	'158' 1 64238 5819 85 45072 60267 30869 70024.....16017
	16:50	6838	'158' 1 64238 5819 85 45072 60267 30869 70024.....16017
Sat 23rd	09:00	11553	'515' 1 64238 5819 85 45072 60267 30869 70024.....16017

E07a December log;

Weds 11th	21:20	5164	'815' 1 35451 6711 59 37074 35768 72529.....81290 90535
Friday 13th	16:30	5387	'830' 1 17279 8983 74 04669 87340 49643.....48910
	16:50	5087	'830' 1 17279 8983 74 04669 87340 49643.....48910
Sat 14th	09:00	11121	'124' 1 17279 8983 74 04669 87340 49643.....48910
	09:40	13421	'124' 1 17279 8983 74 04669 87340 49643.....48910
Weds 18th	21:03	5864	'815' 1 33925 8434 67 76263 09327 10985.....
Weds 25th	21:00	5864	'815' 000
Friday 27th	16:10	5887	'830' 000
	16:30	5387	'830' 000

Others' logs:

4564kHz2140z	20/11[815 1 39288 3631 92 61002 … 59057 000 000] Very strong [prev sent 02/10/2013]	(10m02s)	PLdn	WED
2140z	27/11[815 1 35451 6711 59 37074 … 90535 000 000] Very strong	(7m22s)	PLdn	WED
5146kHz0530z	07/11[188 000] Very strong	(2m08s)	Spectre, PLdn	THU
0530z	14/11[188 000] Very strong	(2m08s)	Spectre, PLdn	THU
0530z	21/11[188 1 39288 3631 92 61002 … 59057 000 000] Very strong [prev sent 03/10/2013]	(10m02s)	PLdn	THU
0530z	28/11[188 1 35451 6711 59 37074 … 90535 000 000] Very strong	(7m22s)	PLdn	THU
5164kHz2020z	06/11[815 000] Very strong	(2m08s)	Spectre, PLdn	WED
2120z	13/11[815 000] Very strong	(2m08s)	Spectre, PLdn	WED
2120z	20/11[815 1 39288 3631 92 61002 … 59057 000 000] Very strong [prev sent 02/10/2013]	(10m02s)	PLdn	WED
2120z	27/11[815 1 35451 6711 59 37074 … 90535 000 000] Very strong	(7m22s)	PLdn	WED
5846kHz0550z	07/11[188 000] Very strong	(2m08s)	Spectre, PLdn	THU
0550z	14/11[188 000] Very strong	(2m08s)	Spectre, PLdn	THU
0550z	21/11[188 1 39288 3631 92 61002 … 59057 000 000] Very strong [prev sent 03/10/2013]	(10m02s)	PLdn	THU
0550z	28/111[188 1 35451 6711 59 37074 … 90535 000 000] Very strong	(7m22s)	PLdn	THU
5864kHz2100z	06/11[815 000] Very strong, BCQRM3	(2m08s)	Spectre, PLdn	WED
2100z	13/11[815 000] Very strong	(2m08s)	Spectre, PLdn	WED
2100z	20/11[815 1 39288 3631 92 61002 … 59057 000 000] Very strong, pause in delivery [prev sent 02/10/2013]	(11m23s)	PLdn, GD	WED
2100z	27/11[815 1 35451 6711 59 37074 … 90535 000 000] Very strong	(7m22s)	PLdn	WED
6838kHz1650z	22/11[158 1 64238 5819 85 45072 ... 46255 000 000] Very strong	(9m50s)	PLdn	FRI
6846kHz0610z	21/11[188 1 39288 3631 92 61002 … 59057 000 000] Very strong [prev sent 03/10/2013]	(10m02s)	PLdn	THU
0610z	28/111[188 1 35451 6711 59 37074 … 90535 000 000] Very strong	(7m22s)	PLdn	THU
7538kHz1630z	01/11[158 158 158 000 R2m] 1632z QSA5 QRM5 QRN5 QSB5		tiNG	FRI
1630z	08/11[158 000] Very strong	(2m08s)	PLdn	FRI
1630z	22/11[158 1 64238 5819 85 45072 ... 46255 000 000] Very strong	(9m50s)	PLdn	FRI
1630z	29/11[158 000] Very strong	(2m08s)	PLdn	FRI
8138kHz1610z	08/11[158 000] Very strong	(2m08s)	PLdn	FRI
1610z	22/11[158 1 64238 5819 85 45072 ... 46255 000 000] Very strong	(9m50s)	PLdn	FRI
1610z	29/11[158 000] Very strong	(2m08s)	PLdn	FRI
11553kHz0900z	02/11[515 515 515 000]		GD	SAT
0900z	09/11[515 000] Very strong	(2m06s)	PLdn	SAT
0900z	16/11[515 000] Fair	(2m06s)	PLdn	SAT
0900z	23/11[515 1 64238 5819 85 45072 ... 46255 000 000] Fair CHQRM3	(9m50s)	PLdn	SAT
0900z	30/11[515 000] Fair, noisy	(2m06s)	PLdn	SAT
12153kHz0920z	09/11[515 000] Very strong	(2m06s)	PLdn	SAT
0900z	16/11[515 000] Fair	(2m06s)	PLdn	SAT
0920z	23/11[515 1 64238 5819 85 45072 ... 46255 000 000] Fair	(9m50s)	PLdn	SAT
0920z	30/11[515 000] Fair, noisy	(2m06s)	PLdn	SAT
13553kHz0940z	23/11[515 1 64238 5819 85 45072 ... 46255 000 000] Fair	(9m50s)	PLdn	SAT

December:

4564kHz2140z	11/12[815 1 35451 6711 59 37074 ... 90535 000 000] Very strong, Previously sent 28/11/2013		FR, PLdn	WED

815 1 35451 6711 59
37074 35768 72529 49853 23347
38397 80207 49818 75039 07507
10556 58905 70723 14022 18479
85306 40887 17230 54950 05866
93266 14060 05335 61536 51333
29291 39281 83470 76139 69014
44965 30083 34275 87849 24916
06732 55732 88016 55016 34439
89595 83179 89301 04789 99915
32364 77434 19079 08024 37826
85013 24780 02061 55004 25564
78838 84419 81290 90535
000 000 *Courtesy FR*

4564kHz 2140z	18/12[815 1 33925 8434 67 76263 … 70331 000 000] Fair	(8m21s)	PLdn	WED
5146kHz0530z	05/12[188 000] Very strong	(2m08s)	PLdn	THU
0530z	12/12[188 1 35451 6711 59 37074 … 90535 000 000] Very strong *Previously sent 28/11/2013*	(7m22s)	PLdn	THU
0530z	19/12[188 1 33925 8434 67 76263 … 70331 000 000] Very strong	(8m21s)	PLdn	THU
0530z	26/12[188 000] Very strong	(2m08s)	PLdn	THU
5164kHz2120z	04/12[815 000] Fair, QRM2	(2m08s)	PLdn	WED
2120z	11/12[815 1 35451 6711 59 37074 ... 90535 000 000] Very strong, *Previously sent 28/11/2013*		FR, PLdn	WED
2120z	18/12[815 1 33925 8434 67 76263 … 70331 000 000] Fair	(8m21s)	PLdn	WED
2120z	25/12[815 000] Strong	(2m08s)	PLdn	WED
5846kHz0550z	05/12[188 000] Very strong	(2m08s)	PLdn	THU
0550z	12/12[188 1 35451 6711 59 37074 … 90535 000 000] Very strong *Previously sent 28/11/2013*	(7m22s)	PLdn	THU
0550z	19/12[188 1 33925 8434 67 76263 … 70331 000 000] Very strong	(8m21s)	PLdn	THU
0550z	26/12[188 000] Very strong	(2m08s)	PLdn	THU
5837kHz1630z	27/12[830 830 830 000 R2m] 1632z QSA4 QRM1 QRN2 QSB2 tiNG	FRI		
5864kHz2100z	04/12[815 000] Fair, QRM2	(2m08s)	PLdn	WED
2100z	11/12[815 1 35451 6711 59 37074 ... 90535 000 000] Very strong, *Previously sent 28/11/2013*		FR, PLdn	WED
2103z	18/12[815 1 33925 8434 67 76263 … 70331 000 000] Very strong, Late start	(8m21s)	PLdn	WED
2100z	25/12[815 000] Very strong	(2m08s)	PLdn	WED
6846kHz0610z	12/12[188 1 35451 6711 59 37074 … 90535 000 000] Very strong *Previously sent 28/11/2013*	(7m22s)	PLdn	THU
0610z	19/12[188 1 33925 8434 67 76263 … 70331 000 000] Fair, with echo	(8m21s)	PLdn	THU
11121kHz0900z	07/12[124 000] Fair	(2m10s)	PLdn	SAT
0900z	14/12[124 1 17279 8983 74 04669 ... 48910 000 000] Fair	(8m55s)	PLdn	SAT
0900z	21/12[124 000] Fair , QSB3	(2m08s)	PLdn	SAT
12221kHz0920z	07/12[124 000] Strong	(2m10s)	PLdn, Topol	SAT
0920z	14/12[124 1 17279 8983 74 04669 ... 48910 000 000] Fair	(8m55s)	PLdn, FR	SAT
0920z	21/12[124 000] Fair	(2m08s)	PLdn	SAT
13421kHz0940z	14/12[124 1 17279 8983 74 04669 ... 48910 000 000] Strong	(8m55s)	PLdn, FR	SAT

124 1 17279 8983 74
04669 87340 49643 44039 47273
08389 65536 52868 13117 24350
23637 77256 60952 78362 44244
06682 44496 03684 97076 85819
17506 55062 12793 64927 09451
49388 14589 18204 72120 02347
71875 13749 75172 51573 26417
98320 60852 49589 82400 34161
35585 48738 79541 93620 91552
40828 92466 34244 64281 21516
30916 58274 96764 70135 28387
41226 95065 59267 09374 59312
88967 85893 79730 01460 29447
09270 93047 57975 89144 61419
65121 22894 57711 48910
000 000 *Courtesy FR*

PoSW's logs – with duplication:

E07a SSB:-

Wednesday Schedule, 2100 UTC Start:-
6-Nov-13:- 2100 UTC, 5,864 kHz, "815 815 815 000".
2120 UTC, 5,164 kHz, second sending, very strong SSB signal.

13-Nov-13:- 2100 UTC, 5,864 kHz, "815 815 815 000", S9+.

20-Nov-13:- 2100 UTC, 5,864 kHz, call-up for "full message" this evening, "815 815 815 1 39288", DK/GC "3631 92" x 2. Unusually weak signal at first, went off during call-up then came back much stronger, the standard S9+. Call-up then went on until 2103 and 20 seconds UTC.
2120 UTC, 5,164 kHz, second sending, S9+.
2140 UTC, 4,564 kHz, third sending, also S9+.

4-Dec-13:- 2100 UTC, 5,864 kHz, “815 815 815 000”, a somewhat weaker signal than usual.
2120 UTC, 5,164 kHz, second sending, also weaker, S9 and not S9+.

Saturday Schedule, 0900 UTC Start:-
9-Nov-13:- 0900 UTC, 11,553 kHz, “515 515 515 000”.
0920 UTC, 12,153 kHz, second sending, S9+.

16-Nov-13:- 0900 UTC, 11,553 kHz, “515 515 515 000”.

23-Nov-13:- 0900 UTC, 11,553 kHz, a “full message” for a change, “515 515 515 1 64238”. DK/GC “5819 85” x 2.
0920 UTC, 12,153 kHz, second sending.
0940 UTC, 13,553 kHz, third sending. All three transmissions strong signals this morning.

30-Nov-13:- 0900 UTC, 11,553 kHz, “515 515 515 000”, S9+ signal.

7-Dec-13:- 0900 UTC, 11,121 kHz, “124 124 124 000”.
0920 UTC, 12,221 kHz, second sending, both good SSB signals, same frequencies as in December last year.

14-Dec-13:- 0900 UTC, 11,121 kHz, a “full message” this morning, “124 124 124 1 17279”,
DK/GC “8983 74” x 2.
0920 UTC, 12,221 kHz, second sending.
0940 UTC, 13,421 kHz, third sending, strongest signal of the three.

E11[III]

E11 log Nov/Dec:

4441kHz	0900z	02/11 [248/00] Strong	Fox	SAT
	0900z	07/11 [248/00] Very weak	RNGB	THU
	1445z	13/11 [287/00]	CHPA, Spectre	WED
	1445z	16/11 [287/00] 1448z Fair QRN3 QSB3	Spectre	SAT
	0900z	23/11 [248/00]	Thomas	SAT
	0900z	07/12 [248/00] Out 0902z Very Weak	Tony	SAT
	1445z	14/12 [287/00] 1448z Fair	Tony	SAT
	0900z	21/12 [248/00] Weak	RNGB	SAT
5082kHz	1730z	07/11 [416/00] Good	RNGB	THU
	0450z	11/11 [416/00] 0450z Fair QRN3 QSB3	Spectre	MON
	1730z	14/11 [416/00] 1733z Fair CARRIERQRM3 QSB3	Spectre	THU
	1730z	28/11 [416/00] Out 1733z S4	Malc	THU
	1730z	05/12 [416/00] Out 1733z Very Strong	Tony	THU
	1730z	19/12 [416/00] 1733z S7	Malc	THU
7840kHz	0645z	14/11 [517/00] 0648z Fair QRN2 QSB2	Spectre	THU
	0645z	10/12 [517/00]	RNGB	TUE
	0645z	24/12 [517/00]	Gary	TUE
8088kHz	0820z	07/11 [438/00] Good	RNGB	THU
	0820z	11/11 [438/00]	RNGB	MON
	0820z	18/11 [438/00]	RNGB	MON
	0820z	09/12 [438/00]	RNGB	MON
	0820z	16/12 [438/00]	RNGB	MON
	0820z	19/12 [438/00]	RNGB	THU
8091kHz	1045z	05/11 [469/00] Good	RNGB	TUE
	1045z	26/11 [469/00]	RNGB	TUE
	1045z	27/11 [469/00] Out 1048z QSA5 QRM1 QRN2 QSB2	Thomas	WED
	1045z	03/12 [469/00] Out 1048z S1	Malc	TUE
	1045z	10/12 [469/00]	RNGB	TUE
	1045z	11/12 [469/00] Out 1023z S4	Malc	WED
	1045z	17/12 [469/00]	RNGB	TUE
9446kHz	0830z	01/11 [649/00]	RNGB	FRI
	0830z	04/11 [649/00]	RNGB	MON
	0900z	06/11 [534/00] Good	RNGB	WED
	0830z	08/11 [649/00] 0833z Weak QRN3 QSB3	Spectre	FRI
	0900z	11/11 [534/00]	RNGB	MON
	0900z	13/11 [534/00]	CHPA	WED
	0830z	18/11 [649/00]	RNGB	MON
	0900z	18/11 [534/00] 0903z Fair RTTYQRM3 QSB3	Spectre	MON
	0830z	25/11 [649/00]	RNGB	MON
	0830z	29/11 [649/00] QSA3 QRK3	CHPA	FRI
	0830z	02/12 [649/00] Out 0833z S5	Malc	MON
	0900z	02/12 [534/00] Out 0903z S4	Malc	MON
	0830z	09/12 [649/00]	RNGB	MON
	0900z	16/12 [534/00]	RNGB	MON
	0900z	23/12 [534/00]	RNGB	MON
	0830z	27/12 [649/00]	RNGB	FRI
	0830z	30/12 [649/00]	RNGB	MON
	0900z	30/12 [534/00]	RNGB	MON

10800kHz	0710z	01/11 [633/00]	RNGB, Fox	FRI
	0710z	05/11 [633/00]	RNGB	TUE
	0710z	08/11 [633/00] 0713z Fair QRN3 QSB2	Spectre	FRI
	0710z	15/11 [633/00]	Fox	FRI
	0710z	29/11 [633/00] QSA3 QRK3	CHPA	FRI
	0710z	17/12 [633/00]	RNGB	TUE
12153kHz	1045z	05/11 [576/00] Strong	RNGB	TUE
	1045z	10/12 [576/00]	RNGB	TUE
	1045z	17/12 [576/00]	RNGB	TUE
14666kHz	1300z	05/11 [133/00] Good	RNGB, IanW	TUE
	1300z	13/11 [133/00]	RNGB	WED
	1300z	10/12 [133/00]	RNGB	TUE
	1300z	18/12 [133/00]	RNGB	WED
	1300z	24/12 [133/00] Out 1403z S9	Malc	TUE
15632kHz	1540z	03/11 [228/00] Good	RNGB	SUN
	1155z	06/11 [718/00] Good	RNGB	WED
	1540z	11/11 [228/00]	RNGB	MON
	1155z	13/11 [718/00]	RNGB	WED
	1155z	14/11 [718/00] S9+20	Marco	THU
	1540z	18/11 [228/00]	RNGB	MON
	1540z	24/11 [228/00] Out 1543z S9+10 Very weak signal	Fritz	MON
	1540z	01/12 [228/00] Out 1043z S1	Malc	SUN
	1540z	09/12 [228/00]	RNGB, Tony	MON
	1540z	15/12 [228/00] QSA2	Manolis	SUN
	1540z	16/12 [228/00] Out 1543z S1	Malc	MON
	1155z	18/12 [718/00] Good	RNGB	WED
	1155z	26/12 [718/00]	RNGB	THU
16112kHz	0745z	12/11 [335/00]	RNGB	TUE
	0745z	14/11 [335/00] 0748z Weak QRN3 QSB3	Spectre	THU
	0745z	26/11 [335/00] Good	RNGB	TUE
	0745z	28/11 [335/00] Out 0748z S9	Malc	THU
	0745z	17/12 [335/00]	RNGB	TUE
	0745z	19/12 [335/00] 0748z S1	Malc	THU

E11a log Nov/Dec:

4441kHz	0900z	12/12 [244/36 13989 79763 66548 92918 61822…..81138]	Fox	THU
	1445z	18/12 [288/37 92435 84964 08109 34234 25129…..41105] Out 1455z S2	Malc	WED
5082kHz	1730z	26/12 [416/38 85965 59217 90858 07111 55505….. 10502]	Malc	THU
6923kHz	1710z	01/11 [957/20 97211 61350 33707 41273 40044…..42327] Strong	Fox	FRI
	1710z	04/11 [951/20 17639 68103 83434 64242 98963…..73074] Good	RNGB	MON
	1710z	08/11 [957/21 47445 31550 10993 08443 12207…..73385]	RNGB	FRI
	1710z	15/11 [957/21 08753 30788 77645 37366 41290…..07077]	Fox, Spectre	FRI
	1710z	18/11 [959/25 89952 85754 63316 19201 31180…..14406]	RNGB	MON
	1710z	22/11 [953/30 40663 74251 56374 20834 31952…..96885] Good	RNGB	FRI
	1710z	02/12 [95?/29 19387 21103 71500 16631 26833…..86977] Out 1718z S7	Malc	MON
	1710z	09/12 [951/30 57891 15874 00681 67157 24084…..74686] Good	RNGB, Tony	MON
	1710z	16/12 [955/21 71209 89847 37777 95941 71966…..82430]	RNGB	MON
	1710z	20/12 [957/23 50486 55351 56280 34609 30635…..23627]	RNGB	FRI
	1710z	23/12 [95-/23 66768 26184 20093 71373 82331…...03655]	RNGB	MON
7840kHz	0645z	07/11 [517/32 24078 41274 86973 74480 15759…..43666] 0655z Fair	Spectre	THU
8088kHz	0820z	25/11 [436/38 43073 67457 20403 94826 07415…..80395] Good	RNGB	MON
8091kHz	1045z	13//11[463/35 08915 61355…..03033]	CHPA	WED
9446kHz	0830z	11/11 [641/34 10651 66260 69912 27605 97668…..63072]	RNGB	MON
	0830z	15/11 [641/34 10651 66260 69912 27605 97668…..63072]	Fox	FRI
	0900z	25/11 [532/34 50254 86651 71220 92437 75790…..02630] Fair	RNGB	MON
	0900z	27/11 [532/36 50254 etc] repeat of Monday	Malc	WED
	0900z	09/12 [537/36 67141 94007 69267 09715 74304…..58952] Good	RNGB	MON
	0900z	11/10 [537/36 67141 94007 69267 09715 74304…..58952] Good	RNGB, Malc	WED
	0830z	16/12 [646/38 42902 27425 56980 17857 86601…..89091]	RNGB	MON
	0830z	20/12 [646/38 42902 27425 56980 17857 86601…..89091]	Fox	FRI
10213kHz	1810z	09/11 [982/10 88924 21057 50659 36921 03276…..45920]	RNGB	SAT
	1810z	12/11 [981/10 60498 53915 39945 90867 07514…..82531] Strong	Fox, Thomas	TUE
	1810z	16/11 [982/10 62797 07408 91859 87622 87423…..15378]	Ary	FRI
	1810z	23/11 [982/10 63408 04405 70356 89798 55107…..46637]	Malc	SAT
	1810z	30/11 [982/10 37376 50402 81462 20327 78732…..24135] Out 1815z S7	Malc	SAT
	1810z	10/12 [985/10 17033 33591 79657 16118 91580…..98393] Good	RNGB	TUE
	1810z	14/12 [982/10 27603 96945 67029 05059 19668…..65625]	RNGB	SAT
	1810z	18/12 [987/10 – unreadable] too weak to copy message	RNGB	TUE

10690kHz	1400z	02/11 [983/10 32341 83455 39085 55612 13150…..76826] Out 1405z	Thomas	SAT
	1400z	16/11 [981/10 29179 55355 50610 37784 97068…..08336]	Fox, Thomas	SAT
	1400z	19/11 [982/10 46581 98648 14942 69928 62730…..58546]	CHPA	TUE
	1400z	23/11 [981/10 40577 54295 75986 38834 45755…..35135]	Malc	SAT
	1400z	30/11 [981/10 36060 58048 86355 53401 88792…..15907] Out 1405z	Malc	SAT
	1400z	03/12 [986/10 78229 87667 58892 65309 51497…..53287] Out 1405z	Malc	TUE
	1400z	07/12 [981/10 32892 90598 69172 96148 07226…..57837] Very strong	Fox	SAT
	1400z	10/12 [984/10 31643 43320 82300 98628 29193…..92386]	RNGB	TUE
	1400z	14/12 [981/10 23455 64936 61591 21053 41291…..85378]	Fox, Tony	SAT
	1400z	17/12]985/10 52226 29895 84842 39531 05790…..90936]	RNGB	TUE
	1400z	24/12 [986/10 87493 04865 74460 51507 29709…..97923]	Malc	TUE
10800kHz	0710z	19/11 [639/33 30903 88970 81945 08377 81257…..70093]	RNGB	TUE
	0710z	22/11 [639/33 30903 etc] repeat of Tuesday	RNGB	FRI
	0710z	10/12 [635/30 03743 29275 60737 60157 71464…..65661]	RNGB	TUE
12153kHz	1045z	26/11 [573/32 37754 23893 45079 00654 41315…..40444]	RNGB	TUE
14410kHz	1110z	01/11 [954/31 36495 75484 87666 53541 64400…..78622] Good	RNGB, Fox	FRI
	1110z	04/11 [956/31 59578 64969 66581 66078 40254…..31818] Good	RNGB, Malc	MON
	1110z	08/11 [952/31 15969 02851 14719 92436] Out 1119 S9 QRM	Malc	FRI
	1110z	11/11 [952/34 45512 05963 54314 06137 97222…..72075]	RNGB	MON
	1110z	15/11 [958/35 29007 87614 57810 08842 56095…..62594] Out 1119z	Malc	FRI
	1110z	18/11 [958/34 81403 89930 40675 58402 12479…..12026]	Malc, RNGB	MON
	1110z	22/11 [958/40 18392 42525 47436 00232 07762…..40603]	Malc	FRI
	1110z	25/11 [953/34 01112 14117 23301 81072 51686…..]	RNGB	MON
	1110z	29/11 [952/31 08662 10159 47828 55729 85206…..67042]	Malc	FRI
	1110z	02/12 [952/39 45572 54022 10156 06853 31891…..24005]	Malc	MON
	1110z	09/12 [956/40 36700 83047 90831 67764 08874…..95877] Out 1121z	RNGB	MON
	1110z	13/12 [950/40 33711 65989 13297 34479 36113…..91230] Out 1121z Fair	RNGB	FRI
	1110z	16/12 [950/34 51522 57484 98652 52053 77972…..28859]	RNGB	MON
	1110z	20/12 [950/35 80925 65568..... 85396] Out1120z S9	Malc	FRI
	1110z	23/12 [950/31 81371 36913 56737 83783 18924…..27831] Good	RNGB	MON
	1110z	27/12 [958/34 72396 80033 84658 65765 21598…..67055] Fair + QRM	RNGB	FRI
	1110z	30/12 [954/34 61152 98826 81695 64634 47681…..31315] Fair + QRM	RNGB	MON
14666kHz	1300z	26/11 [130/34 90509 89565 20420 02790 76294…..48480]	RNGB	TUE
15632kHz	1540z	08/12 [222/30 93672 45699 55047 37154 13020…..11493]	Malc, Tony	SUN
	1155z	11/12 [716/35 16913 26631 45374 14257 12498…..57217]	RNGB	WED
16112kHz	0745z	05/11 [332/38 92034 94393 70123 41613 77044…..04621] Good	RNGB	TUE
	0745z	07/11 [332/38 92034 etc] repeat of Tuesday	Spectre	THU
	0745z	10/12 [335/32 66481 92376 29359 25808 41356…..00709] Good	RNGB	TUE

<u>E17z</u> November:

9820kHz	810z	07/11[674 921 5 54545 50128 99477 83574 61088 921 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre, RNGB	THU
	0810z	14/11[674 921 5 54545 50128 99477 83574 61088 921 5 00000(s)] 0815z Fair QRN3 QSB3	Spectre	THU
	0810z	21/11[674 982 5 21816 82997 94184 57440 10598 982 5 00000] QSA 3 QRK 2	CP	THU
	0810z	28/11[674 982 5 35856 83997 94584 57440 50598 982 5 00000]0815z S2	M8	THU
11170kHz	0800z	07/11[674 205 8 56514 65911 72456 24237 47583 49941 45505 53826 205 8 00000]	RNGB, GD, Spectre	THU

The middle of the message is very familiar; last heard : Weds 5th Dec 2012 4580kHz S06s 967 430 5 50128 99477 83574 48874 94031

11170kHz	0800z	14/11[674 921 5 54545 50128 99477 83574 61088 921 5 00000]	Spectre, JO	THU
	0800z	21/11[674 982 5 21816 82997 94184 57440 10598 982 5 00000]	GD, CP	THU
	0800z	28/11[674 982 5 35856 83997 94584 57440 50598 982 5 00000]0805z S5	M8	THU

December:

11170kHz	0800z	05/12[674 891 5 26384 14692 95682 74357 82838 ... ...]	GD	THU
	0800z	26/12[674 812 5 88280 84116 53781 78924 34694]	GD	THU

<u>E25</u>

614 kHz	0829z	12/11[701 1015 7240 6011 9544 4464 9634 6647 4747 5206 8205 7240] 0833z YL, AM initially off-frequency, QSA2, QRN MG		TUE

Two music-only transmission on 9400 kHz and 6140 kHz (a la E25):

6140kHz	0819z	23/11 unid OM music with hum noise, QRT 0821z, AM QSA3 MG SAT
9400kHz	0851z	17/11 carrier, tone, 0858z unid music OM, tone, 0900z unid music, 0920z tone, QRT 0921z AM, QSA5, QSB3, MG SUN

A message on 6140 kHz with troubles during repeat:

6140 kHz 0945z 30/11 [350 1025 1320 1090 8425 0148 9851 8942 6335 1320] 0950z YL WinXP sounds, problems during repeat, AM, QSA5, QSB2 MG SAT
They repeated the TX again, five minutes later:
6140 kHz 0955z 30/11 [repeat of 30/11 0945z] 1001z same problems during repeat MG SAT

A "special" 9999 message to agent 785, logged using Uni Twente webSDR:

9450kHz	1213z	14/11[830 6 785 9999 x10] 1223z YL, 1218z Mx3, 1220z Rx3, 1223z EOM EOT WinXP sound QRN4 QSA2 via Univ. Twente MG THU

E25a

9450kHz1215z	03/11[830 5] 1221z Intro song "Inte Omri", AM, QSA5	MG	SUN

6140kHz 0947z 01/12 [355 1] YL, 0951z Mx3 Rx2 EOM, carrier left open for a while, QSA3 MG SUN
Also, around 1200z, a strong carrier with occasional data bursts a few hundred Hz below 9450 kHz was heard. Probably unrelated to E25.

G06

PoSW writes: The expected seasonal changes of frequency in November, moving lower as we advance towards winter.

Second + Fourth Thursdays in the Month 1830 UTC Schedule:-
14-Nov-13:- 4,519 kHz, calling "271", audio seemed very low in relation to carrier strength, not normally a problem with G06, and went very quiet and inaudible during the call-up. Not helped by local interference, the usual suspects being plasma TVs and anything with digital circuitry and switch mode power supplies together with the strong swept carrier which lives down here. Became just about readable again approx 1836z, ended a minute or so later with "350 350" (?), "20 20"; so, as with the related Thursday E06 heard on the 7th the group count has changed from 15 to 20.

28-Nov-13:- 4,519 kHz, calling "271", DK/GC "350 350", and after a long pause, "20 20".
Noisy frequency.

12-Dec-13:- 4,519 kHz, no voice heard until well after 1831 UTC, voice stopped for a short while during "271" call-up, DK/GC "847 847 20 20", noisy frequency and the usual swept carrier interference. Voice became inaudible for a few seconds after 5F group 12.

Friday Following the Second + Fourth Thursdays in the Month, 1930 UTC Schedule:-
29-Nov-13:- 4,792 kHz, "436 436 436 00000" - no message.

13-Dec-13:- 4,792 kHz, call "436", DK/GC "789 789 20 20".

First + Second Mondays in the Month 1700 UTC + 1800 UTC Schedule:-
This schedule now appearing one hour earlier UK time following the changing of the clocks with the end of summertime, so the 1700 UTC on at 5 PM when some of us are just thinking about leaving a days honest toil to begin the journey home. However, baring accidents and mishaps we expect to be near a radio at 1800 UTC, 6 PM UK time.
4-Nov-13:- 1800 UTC, 4,515 kHz, "564 564 564 00000". S7 to S8, interference from the same swept carrier which carves up the Friday 1830z G06.

11-Nov-13:- 1800 UTC, 4,515 kHz, "564 564 564 00000", with the swept carrier, about one second sweep rate.

2-Dec-13:- 1759 and 15s UTC, started early, 4,515 kHz, "564 564 564 00000", up to S9+, the swept carrier interference weaker than in the past.

9-Dec-13:- 1759 and 10 seconds UTC, early start again, 4,515 kHz, "564 564 564 00000", S9 with the usual swept carrier interference.

First + Third Fridays in the Month 2000 + 2100 UTC:-
1-Nov-13:- 2100 UTC, 5,893 kHz, "239 239 239 00000". S9+, very strong signal. Unable to find a transmission at 2000 UTC, presumably a couple of MHz higher. Seasonal change of frequency, 9,469 + 7,377 kHz used in the previous couple of months.

15-Nov-13:- 2000 UTC, 7,882 kHz, the first sending of this schedule. "239 239 239 00000".
S9+, on the same frequency, or almost, as the German Weather Service WEFAX station.
Coincidence? Carrier with tone noted 1949 UTC - which indicated that it wasn't the WEFAX station, confirmed by "239" in German language spoken twice at 1952 UTC.
2100 UTC, 5,883 kHz, second sending, S9+.

Seems to have gone in December, not heard on Friday 6-December-13 at either 2000 UTC or 2100 UTC.

November 2013:

3673kHz1700z	04/11[564x3 00000.....]1703z S1		M8	MON
1700z	11/11[564 00000] 1704z Fair QRN4 QSB3		Spectre	MON
1706z	11/11[01234 01234 Test Count] 1707z Fair QRN4 QSB3		Spectre	MON
4515kHz1715z	04/11[01234 x 5 test]1716z S2		M8	MON
1800z	04/11[564x3 00000.....]1803z S2		M8	MON
1800z	11/11[564 00000] 1804z Fair QRN3 QSB3		Spectre	MON
4519kHz 1830z	28/11[271 372 2 rest inaudible]		PLdn	THU
4792kHz1930z	29/11[436 00000] Very strong	(3m44s)	PLdn	FRI

December 2013:

3673kHz1700z	09/12[564 00000] fair		HJH	MON
4515kHz1718z	09/12 Counts 56789, Multiple repeats of number sequence		HJH	MON
1725z	09/12 Sent 21234. Multiple repeats		HJH	MON
1800z	09/12[564 00000] very weak		CP, HJH	MON
4519kHz1832z	12/12[71 then 271 (R6)] Very strong (23s)		PLdn	THU
1833z	12/12[271 846 20 83167 … 14881 846 20 00000(s) Very strong	(9m32s)	PLdn	THU
1830z	26/12[271 846 20 83167 … 14881 846 20 00000(s) Fair, QRM3	(9m32s)	PLdn	THU

4792kHz1930z	13/12[436 789 20 92611.....56531] 1938z Very Weak QSB4	Topol	FRI

436 789 20
92611 69428 538?1 66395 15663
18367 98356 254?8 267?3 86464
7385? 5398? 28796 53428 89674
26481 76534 09895 14765 56531
789 20 00000 Courtesy Topol

Note: Was very faint, with considerable fading so can't be 100% sure of all groups

1930z	27/12[436 789 20 92411 ... 26531] 1 minute late and intro ID (436) was only once. Weak signal.	Gert	FRI
5363kHz0800z	16/12[215x3 00000.....]0802z S1	M8	MON
7882kHz2000z	20/12[239x3 00000]2003z S1	M8	FRI

RNGB's logs:

G06 November log:

Friday	20:00	7882	'239' 00000
	21:00	5893	'239' 00000
Mon 4th	17:00	3673	'564' 00000
	18:00	4515	'564' 00000
Mon 11th	08:00	5463	'215' 00000
Mon 18th	08:00	5463	'215' 00000

G06 December log:

Mon 9th	07:59	5463	'215' 00000
	17:00	3673	'564' 00000
	18:00	4515	'564' 00000
Mon 16th	08:00	5463	'215' 00000
Friday 20th	21:00	5883	'239' 00000
Thurs 26th	19:30	4519	'271' 846 20 83167 14508 30778 13436 52034.....14881

G11 log Nov/Dec:

4441kHz	2000z	01/11 [269/36 30021 86626 94843 19906 19879…..06296] Very strong	Fox	FRI
	2000z	03/11 [269/36 30021 etc] repeat of Friday	RNGB	SUN
	2000z	10/11 [262/00]	RNGB	SUN
	2000z	17/11 [262/00]	RNGB	SUN
	2000z	24/11 [262/00] Ende 2003z S5	Malc	SUN
	2000z	01/12 [262/00] Ende 2003z S5	Malc	SUN
	2000z	08/12 [262/00]	RNGB	SUN
	2000z	13/12 [265 30 28412.....78764] 2009z Very Strong	Tony	FRI
	2000z	15/12 [265/30 28412 25029 71320 50432 78668…..78764]	RNGB	SUN
	2000z	29/12 [262/00]	Gert	SUN
6433kHz	1325z	01/11 [299/31 68284 52476 77797 00314 21214…..82568] Very strong	Fox	FRI
	1755z	05/11 [270/00] Good	RNGB	TUE
	1325z	08/11 [299/00] R3m Ende 1328z QSA5 QRM5 QRN5 QSB4	Thomas	FRI
	1755z	12/11 [270/00] Strong	Fox	TUE
	1325z	16/11 [299/00] Ende1328z QSA4 QRM5 QRN4 QSB 3	Thomas	SAT
	1325z	29/11 [299/00] QSA3 QRK3	CHPA, Malc	FRI
	1755z	01/12 [270/00] Ende 1758z S8	Malc	SUN
	1755z	08/12 [270/00]	RNGB	SUN
	1325z	13/12 [299/00] Ende 1328z S1	Malc	FRI
	1325z	14/12 [299/00] Ende 1328z S2	Malc	SAT
	1755z	15/12 [270/00] QRN	Manolis	SUN
	1755z	17/12 [271/32 11304 31143 40614 12304 89783…..etc]	RNGB	TUE
	1755z	24/12 [270/00]	RNGB	TUE
	1325z	27/12 [299/32 78156 26055 . . . 88674 39871] Ende 1335z	Thomas	FRI

S06/S06s Logs, starting with RNGB's

S06 log November:

Sat 2nd	16:00	7397	'764' 00000
Mon 4th	19:05	3838	'349' 00000
Thurs 7th	19:05	3838	'349' 00000
Sat 9th	19:30	3172	'426'00000
Mon 11th	19:15	8180	'805'00000
Mon 18th	19:00	3192	'349' 00000
Mon 25th	19:15	8180	'805' 00000

S06s report November:

ID 745 forgot about the hour change and went out at 0730 instead of 0830 at the beginning of the month. Managed to change the clock for the 2nd week repeat sending at 0830.

New ID of 524 discovered by Ary on the 24th of the month (Sunday). Further monitoring required to establish this ID's credentials. Interestingly the ID is very similar to Saturday's of 254 !!

ID 471 with a new frequency set this month – 6778/7675kHz

And ID 934 changed to 7125/8795kHz

ID 516 departed from its normal protocol to send a 5 group message. The first one I have ever heard from this ID. Up until now it has always sent 7,8 or 9 groups. A mistake?

S06s November log:

Monday			
4th/11th	0830/40	8234/9270	‘371’ 904 5 33796 13577 74526 46647 79302
18th/25th			‘371’ 968 5 46062 68672 96468 39685 30475
4th/11th	0900/10	14675/12830	‘872’ 903 5 88620 58079 61732 74537 57440
18th/25th			‘872’ 531 6 21767 53672 11834 81022 86902 41412
4th/11th	1300/10	8420/10635	‘831’ 204 5 52401 63919 92699 14600 74248
18th/25th			‘831’ 592 6 26634 14690 95590 60386 03009 81413
Tuesday			
5th/12th	0700/15	5250/6320	‘374’ 210 5 57634 90673 23154 57634 90632
19th/26th			‘374’ 960 5 88620 58069 61723 74537 67440
5th/12th	0730/40	7410/11560	‘427’ 936 5 52401 63919 92699 14600 74248
19th/26th			‘427’ 835 6 47583 01968 22745 11942 30967 67812
5th/12th	0800/10	10265/9145	‘352’ 914 6 46062 68672 97478 39685 30485 52537
19th/26th			‘352’ 417 6 74638 87361 20869 58675 40917 18342
5th/12th	1000/10	6440/5660	‘893’ 245 6 52401 63919 92699 14600 74248 48754
19th/26th			‘893’ 401 5 29245 28842 14248 95679 67261
5th/12th	1500/10	6845/9170	‘537’ 982 6 39534 17228 15636 47891 23247 17099
19th/26th			
Wednesday			
6th	0730/40	7335/11830	‘745’ 908 6 33796 13577 74526 46647 79302 63516
13th	0820/30	6778/7675	‘471’ 903 5 46062 68672 97478 39685 30485
20th/27th			‘471’ 293 5 16945 80744 86200 84706 69901
13th	0830/40	7335/11830	‘745’ 908 6 33796 13577 74526 46647 79302 63516
20th/27th			‘745’ 209 6 10597 23521 47660 92883 68909 14600
6th/13th	0840/50	9260/11415	‘328’ 901 5 52401 63919 92699 14600 74248
20th/27th			‘328’ 410 5 33796 13577 74526 46647 79302
6th/13th	1000/10	12365/14280	‘729’ 806 5 33796 13577 74526 46647 86745
20th/27th			‘729’ 803 5 88620 58069 61732 74537 57440
6th/13th	1230/40	4580/6420	‘967’ ?
20th/27th			‘967’ 203 5 56024 87757 72785 54876 15595
Thursday			
7th/14th (E17z)	0800/10	11170/9820	‘674’ 921 5 54545 50128 99477 83574 61088
21st/28th			‘674’ 982 5 21816 82997 94184 57440 10598
7th/14th	0900/10	12952/13565	‘167’ 894 5 11171 64385 83707 06123 22536
21st/28th			‘167’ 923 5 75155 92918 97067 58604 41879
7th/14th	0900/10	5410/6770	‘624’ 508 7 groups
21st/28th			
7th/14th	0930/40	8812/9540	‘314’ 598 6 48521 63888 92060 8115 09531 91497
21st/28th			‘314’ 972 5 68672 97478 39685 30485 96632
7th/14th	1200/10	12155/10920	‘425’ 896 7 88146 57856 98835 46186 16945 80744 86200
21st/28th			‘425’ 863 7 24357 60583 54545 50138 84391 48920 43888
Friday			
1st/8th	0600/10	7125/8795	‘934’ 816 5 46062 68672 97478 39685 40485
15th/22nd			‘934’ 801 5 83981 24935 58604 71428 03292
1st/8th	0700/10	7150/8215	‘196’ 208 5 52401 63919 92699 14600 74248
15th/22nd			‘196’ 802 5 30485 96632 62537 53317 06675
1st/8th	0800/10	5810/6770	‘278’ 406 5 33796 13577 74526 46647 79302
15th/22nd			‘278’ ?
1st/8th	0930/40	11780/12570	‘516’ 938 7 52401 63919 92699 14600 74248 48754 65125
15th/22nd			‘516’ 987 5 33796 13578 47526 46247 25616
Saturday			
2nd	1200/10	8680/8260	‘254’ 980 6 46062 68672 97478 39685 30485 96632
Sunday			
17th/24th	0630	13470/ ?	‘524’ 981 6 57634 80956 23154 67453 89672 45412 (Tks Ary)

S06s report December:

Mon 9th	19:00	3192	‘349’ 00000
	20:15	5140	‘418’ 00000
Tues 10th	18:00	3645	‘617’ 00000
Mon 16th	19:05	3838	‘349’ 00000
Sat 21st	20:00	4038	‘319’ 00000
	20:30	4784	‘857’ 00000

S06s December log:

Monday			
2nd/9th	0830/40	8234/9270	‘371’ 249 5 52401 63919 92699 14600 74248
16th/23rd			‘371’ 948 5 10597 23521 47660 92883 69901
2nd/9th	0900/10	14675/12830	‘872’ 409 5 46062 68672 97478 39685 30485
16th/23rd			‘872’ 954 6 47550 10597 23521 47660 92883 69901
2nd/9th	1300/10	8420/10635	‘831’ 207 5 33796 13677 74526 46647 79302
16th/23rd			‘831’ 594 6 88620 58069 61732 74537 57440 10597

Tuesday

3rd/10th	0700/15	5250/6320	‘374’ 206 5 89674 46312 79804 56310 56552
17th/24th			‘374’ 980 5 40613 77249 40678 17976 21816
3rd/10th	0730/40	7410/11560	‘427’ 893 5 84116 53718 78925 34694 57440
17th/24th			‘427’ 930 5 48754 65125 41879 84648 42036
3rd/10th	0800/10	10265/9145	‘352’ 419 6 52401 63919 92699 14600 74248 48754
17th/24th			‘352’ 470 6 21816 42997 94184 47374 74154 08531
3rd/10th	1000/10	6440/5660	‘893’ 251 6 23247 17099 94961 35836 83963 52985
17th/24th			‘893’ 420 5 96320 36793 53038 76342 15328
3rd/10th	1500/10	6845/9170	‘537’ 429 6 45847 23013 89758 41412 55678 06675
17th/24th			‘537’ 941 6 57024 87757 72785 54876 86950 11836

Wednesday

4th/11th	0820/30	6778/7675	‘471’ 280 5 46062 68672 97478 39685 30485
18th/25th			‘471’ 806 5 42997 94184 47374 42227 77233
13th	0830/40	7335/11830	‘745’ 903 6 21767 53672 11834 81022 36803 41412
18th/25th			‘745’ 208 6 95224 45279 24035 48115 48521 63888
4th/11th	0840/50	9260/11415	‘328’ 904 5 05899 50387 45847 23013 89758
18th/25th			‘328’ 910 5 45324 67653 89760 13214 56437
4th/11th	1000/10	12365/14280	‘729’ 841 5 52710 63919 92699 14600 74248
18th/25th			‘729’ 408 5 57634 80756 34195 78521 90784
4th/11th	1230/40	4580/6420	‘967’ Too weak to copy
18th/25th			‘967’ Too weak to copy

Thursday

5th/12th (E17z)	0800/10	11170/9820	‘674’ 891 5 26384 14692 95682 74357 82938
19th/26th			‘674’ 812 5 88280 84116 53781 78924 34694
5th/12th	0900/10	12952/13565	‘167’ 948 5 81413 94073 83531 94063 63156
19th/26th			‘167’ 439 5 65906 66610 20336 17301 88554
5th/12th	0900/10	5410/6770	‘624’ 917 5 48115 24151 51802 23807 15521
19th/26th			‘624’ 859 7 52401 63919 92699 14600 74248 48754 65125
5th/12th	0930/40	8812/9540	‘314’ 925 6 30485 96632 52537 53317 06675 41736
19th/26th			‘314’ 862 5 83596 05266 57257 61292 55549
5th/12th	1200/10	12155/10920	‘425’ 901 6 74248 48754 65125 41879 84648 42036
19th/26th			‘425’ 961 7 56024 87757 72785 54876 15595 52235 52442

Friday

6th/13th	0600/10	7125/8795	‘934’ 826 5 65906 66610 20336 17301 88554
13th/20th			‘934’ 861 5 23918 85311 25152 03369 50544
6th/13th	0700/10	7150/	‘196’ 837 5 16945 86200 84706 42227 61736
13th/20th			‘196’ 284 5 48325 70092 55645 65687 26581
6th/13th	0800/10	5810/	‘278’ too weak to copy
13th/20th			‘278’ 910 5 46062 18672 97478 39685 30485
6th/13th	0930/40	11780/	‘516’ 403 7 53038 76342 15009 84090 09531 88430 75940
13th/20th			‘516’ 479 8 88620 78157 67402 47551 30076 95721 37756 00921

Saturday

7th	1200/10	8680/8260	‘254’ 980 6 46062 68672 97478 39685 30485 96632

Sunday

1st/8th	0630/40	13470/ ?	‘524’ 978 6 10597 23521 47660 92883 69901 39534
15th/22nd			‘524’ 817 6 81954 54174 25254 78376 88013 58399 ?

Now onto others’ logs ending with PoSW’s analysis.

<u>S06</u> [November]

3192kHz1900z	18/11[349 349 349 00000 R4m] 1904z QSA4 QRM3 QRN5 QSB4	tiNG	MON
3569kHz2100z	02/11[319x3 00000.....]2104z S7	M8	SAT
3838kHz1905z	04/11[349x3 00000.....]1909z S5	M8	MON
1905z	07/11[349x3 00000.....]1939z S2	M8	THU
1905z	11/11[349 00000] 1909z Weak QRN3 QSB3	Spectre	MON
1905z	14/11[349 00000] 1909z Fair QRN3 QSB3	Spectre	THU
4017kHz2130z	02/11[857x3 00000.....]2134z S7	M8	SAT
4784kHz2030z	02/11[857x3 00000.....]2034z S7	M8	SAT
6830kHz2015z	11/11[805 00000] 2015z Weak QRN3 QSB3	Spectre	MON
7387kHz1600z	16/11[764 00000] 1604z Strong BCQRM3 QSB2	Spectre	SAT
8180kHz1915z	11/11[805 00000] 1919z Fair QRN3 QSB3	Spectre	MON

S06 [December]

3192kHz1900z	09/12[349 00000] 1904z Very Storng	Topol	MON
3645kHz1800z	03/12[617x3 00000]1803z S7	M8	TUE
3834kHz1935z	14/12[426 00000] Very strong signal, weak noise	FR	SAT
3838kHz1905z	16/12[349x3 00000.....]1909z S8	M8, Topol	MON
5140kHz2015z	09/12[418 00000] 2019z Very Weak	Topol	MON
5943kHz1605z	14/12[764x3 00000.....]1609 S7	M8	SAT

S06s November]

6420kHz1240z	27/11[967 203 5 56024 87757 72785 54876 15595 203 5 00000]1245z S2	M8	WED
6778kHz0820z	27/11[471 293 5 16945 80744 86200 84706 69901 293 5 00000]0825z S2	M8	WED
7150kHz0700z	01/11[196 208 5 52401 63919 92699 14600 74248 208 5 00000] Very strong, QRM	FR	FRI
0 700z	15/11[196 802 5 30485 96632 62537 53717 06675 802 5 00000(s)] 0705z Very Weak QRN4 QSB4	Spectre	FRI
0700z	22/11[196 802 5 30485 96632 62537 53717 06675 802 5 00000(s)] 0705z Weak QRN4 QSB4	Spectre	FRI
7335kHz0830z	27/11[745 209 6 10597 23251 47660 92883 68909 14600 209 6 00000]0835z S5	M8	WED
7675kHz0830z	27/11[471 293 5 16945 80744 86200 84706 69901 293 5 00000]0835z S4	M8	WED
8215kHz0710z	01/11[196 208 5 52401 63919 92699 14600 74248 208 5 00000] Very strong, QRM	FR	FRI
0710z	15/11[196 802 5 30485 96632 62537 53717 06675 802 5 00000(s)] 0715z Weak QRN4 QSB3	Spectre	FRI
0710z	22/11[196 802 5 30485 96632 62537 53717 06675 802 5 00000(s)] 0715z Weak QRN4 QSB3	Spectre	FRI
8234kHz0830z	18/11[too weak to copy]	M8	MON
0830z	25/11[371 968 5 46062 68672 97468 39685 30475 968 5 00000(s)]	JO	MON
8260kHz1210z	02/11[254 R4m 980 6 46062 68672 97478 39685 30485 96632 980 6 00000]	tiNG	SAT
8420kHz1300z	04/11[831 204 5 52401 63919 92699 14600 74248 204 5 00000]1305z S1	M8	MON
1300z	11/11[831 204 5 52401 63919 92699 14600 74248 204 5 00000(s)] 1305z Fair QRN3 QSB3	Spectre	MON
1300z	25/11[831 592 6 26634 14690 95590 60386 03009 81413 592 6 00000]1305z S1	M8	MON
8680kHz1200z	02/11[254 R4m 980 6 46062 68672 97478 39685 30485 96632 980 6 00000] Strong	tiNG, CP	SAT
8812kHz 0930z	07/11[314 598 6 48521 63888 92060 48115 09531 91497 598 6 00000(s)] 0935z Fair QRN3 QSB3	Spectre	THU
0930z	14/11[314 598 6 48521 63888 92060 48115 09531 91497 598 6 00000(s)] 0935z Fair QRN3 QSB3	Spectre, MP	THU
0930z	28/11[314 972 5 68672 97478 39685 30485 96632 972 5 00000]0935z S2	M8	THU
9260kHz 0840z	06/11[328 901 5 52401 63919 92699 14600 74248 901 5 00000(s)] 0845z Strong QRN3 QSB3	Spectre	WED
0840z	13/11[328 901 5 52401 63919 92699 14600 74248 901 5 00000(s)] 0845z Strong QRN3 QSB3	Spectre	WED
0840z	27/11[328 410 5 33796 13577 74526 46647 79302 410 5 00000]0845z S4	M8	WED
9270kHz0840z	18/11[too weak to copy]	M8	MON
9540kHz 0940z	07/11[314 598 6 48521 63888 92060 48115 09531 91497 598 6 00000(s)] 0945z Fair QRN3 QSB3	Spectre	THU
0940z	14/11[314 598 6 48521 63888 92060 48115 09531 91497 598 6 00000(s)] 0945z Fair QRN3 QSB3	Spectre, MP	THU
0940z	28/11[314 972 5 68672 97478 39685 30485 96632 972 5 00000]0945z S5	M8	THU
10635kHz1310z	04/11[831 204 5 52401 63919 92699 14600 74248 204 5 00000(s)] 1315z Fair QRN3 QSB3	Spectre, M8	MON
1310z	11/11[831 204 5 52401 63919 92699 14600 74248 204 5 00000(s)] 1315z Strong QRN3 QSB3	Spectre	MON
1310z	25/11[831 592 6 26634 14690 95590 60386 03009 81413 592 6 00000]1315z S6	M8	MON
10920kHz1210z	07/11[425 896 7 88146 57856 98835 46186 16945 80744 86200 896 7 00000(s)] 1216z Strong QRN2 QSB2	Spectre	THU
1210z	14/11[425 896 7 88146 57856 98835 46186 16945 80744 86200 896 7 00000(s)] 1216z Strong QRN2 QSB2	Spectre	THU
11415kHz 0850z	06/11[328 901 5 52401 63919 92699 14600 74248 901 5 00000(s)] 0855z Strong QRN3 QSB3	Spectre	WED
0850z	13/11[328 901 5 52401 63919 92699 14600 74248 901 5 00000(s)] 0855z Strong QRN3 QSB3	Spectre	WED
0850z	27/11[328 410 5 33796 13577 74526 46647 79302 410 5 00000]0855z S9	M8	WED
11780kHz0930z	01/11[516 938 7 52401 63919 92699 14600 74248 48754 65125 938 7 00000] Very strong, QRM	FR	FRI
0930z	08/11[516 938 7 52401 63919 92699 14600 74248 48754 65125 938 7 00000]0935z S9+10	M8	FRI
0930z	15/11[516 987 5 33796 13578 47526 64247 25616 987 5 00000]0935z S8	M8	FRI
0930z	22/11[516 987 5 33796 13578 47526 46247 25616 987 5 00000(s)] 0935z Fair QRN2 QSB2	Spectre	FRI
11830kHz0840z	27/11[745 209 6 10597 23251 47660 92883 68909 14600 209 6 00000]0845z S7	M8	WED
12155kHz1200z	07/11[425 896 7 88146 57856 98835 46186 16945 80744 86200 896 7 00000(s)] 1206z Strong QRN2 QSB2	Spectre	THU
1200z	14/11[425 896 7 88146 57856 98835 46186 16945 80744 86200 896 7 00000(s)] 1206z Strong QRN2 QSB2	Spectre	THU
12365kHz1000z	06/11[729 806 5 33796 13577 74526 46647 86745 806 5 00000(s)] 1005z Fair QRN3 QSB3	Spectre	WED
1000z	13/11[729 806 5 33796 13577 74526 46647 86745 806 5 00000(s)] 1005z Fair QRN3 QSB3	Spectre	WED
1000z	27/11[729 803 5 88620 58069 61732 74537 57440 803 5 00000]1005z S9+20	M8	WED

12570kHz0940z	01/11[516 938 7 52401 63919 92699 14600 74248 48754 65125 938 7 00000(s)] 0946z Fair STANAGQRM3 QSB3	Spectre	FRI
0940z	08/11[516 938 7 52401 63919 92699 14600 74248 48754 65125 938 7 00000(s)] 0946z Fair STANAGQRM3 QSB3	Spectre	FRI
0940z	15/11[516 987 5 33796 13578 47526 46247 25616 987 5 00000(s)] 0945z Strong QRN2 QSB2	Spectre, M8	FRI
0940z	22/11[516 987 5 33796 13578 47526 46247 25616 987 5 00000(s)] 0945z Strong QRN2 QSB2	Spectre	FRI
12830kHz 0910z	04/11[872 903 5 88620 58079 61732 74537 57440 903 5 00000(s)] 0915z Fair QRN3 QSB3	Spectre	MON
0910z	11/11[872 903 5 88620 58079 61732 74537 57440 903 5 00000(s)] 0915z Fair QRN3 QSB3	Spectre	MON
0910z	18/11[872 531 6 21767 53672 11834 81022 86902 41412 531 6 00000(s)] 0915z Strong QRN3 QSB2	Spectre, M8	MON
0910z	25/11[872 531 6 21767 53672 11834 81022 86902 41412 531 6 00000]0915z S7	M8	MON
12952kHz 0900z	07/11[167 894 5 11171 64385 83707 06123 22536 894 5 00000(s)] 0905z Strong QRN2 QSB2	Spectre	THU
0900z	14/11[167 894 5 11171 64385 83707 06123 22536 894 5 00000(s)] 0905z Strong QRN2 QSB2	Spectre, MP	THU
0900z	28/11[167 923 5 75155 92918 97067 58604 41879 923 5 00000]0905z S9	M8	THU
13565kHz 0910z	07/11[167 894 5 11171 64385 83707 06123 22536 894 5 00000(s)] 0915z Strong QRN2 QSB2	Spectre	THU
0910z	14/11[167 894 5 11171 64385 83707 06123 22536 894 5 00000(s)] 0915z Strong QRN2 QSB2	Spectre, M8	THU
0910z	28/11[167 923 5 75155 92918 97067 58604 41879 923 5 00000]0915z S9	M8	THU
14280kHz1010z	06/11[729 806 5 33796 13577 74526 46647 86745 806 5 00000(s)] 1015z Strong QRN3 QSB3	Spectre, GD	WED
1010z	13/11[729 806 5 33796 13577 74526 46647 86745 806 5 00000(s)] 1015z Strong QRN3 QSB3	Spectre	WED
1010z	27/11[729 803 5 88620 58069 61732 74537 57440 803 5 00000]1015z S9+30	M8	WED
14675kHz 0900z	04/11[872 903 5 88620 58079 61732 74537 57440 903 5 00000(s)] 0905z Fair QRN3 QSB3	Spectre	MON
0900z	11/11[872 903 5 88620 58079 61732 74537 57440 903 5 00000(s)] 0905z Fair QRN3 QSB3	Spectre	MON
0900z	18/11[872 531 6 21767 53672 11834 81022 86902 41412 531 6 00000]0905z S9+10	M8	MON
0900z	25/11[872 531 6 21767 53672 11834 81022 86902 41412 531 6 00000]0905z S9	M8	MON

S06s [December]

5250kHz 0700z	24/12[374 980 5 = 40613 77249 40678 17976 21816]	Gert	TUE
5410kHz0900z	19/12[too weak to copy]	M8	THU
5660kHz1010z	03/12[893 251 6 23247 17099 94961 35836 83963 52985 251 6 00000]1015z S2	M8	TUE
6420kHz1240z	04/12[967 too weak to copy]1245z	M8	WED
6440kHz1000z	03/12[too weak to copy]	M8	TUE
6770kHz0910z	19/12[Too weak to copy QRM]	M8	THU
6778kHz0820z	04/12[471 280 5 46062 68672 97478 39685 30486 280 5 00000]0825z S4	M8, Topol	WED
0820z	11/12[471 280 5 46062 68672 97478 39685 30486 280 5 00000]0825z S2	M8	WED
0820z	18/12[471 806 5 42997 94184 47374 42227 77233 806 5 00000]0825z S3	M8	WED
6845kHz1500z	03/12[537 429 6 45847 23013 89758 41412 55678 06675 429 6 00000]1505z S3	M8	TUE
1500z	03/12[537 429 6 45847 23013 89758 41412 55678 06675 429 6 00000] 1505z Fair	Topol	TUE
1500z	24/12[537 941 6 57024 87757 72785 54876 86950 11836 941 6 00000]1505z S1	M8	TUE
7335kHz0830z	04/12[745 903 6 21767 53672 11834 81022 36803 41412 903 6 00000]0835z S2	M8, Topol	WED
0830z	11/12[745 903 6 21767]	FN, M8	WED
0830z	18/12[745 208 6 95224 45279 24035 48115 48521 63888 208 6 00000]0835z S3	M8	WED
7675kHz0830z	04/12[471 280 5 46062 68672 97478 39685 30486 280 5 00000]0835z S4	M8	WED
0830z	11/12[471 280 5 46062 68672 97478 39685 30486 280 5 00000]0835z S3	M8	WED
0830z	18/12[471 806 5 42997 94184 47374 42227 77233 806 5 00000]0835z S3	M8	WED
8234kHz0830z	02/12[371 249 5 52401 62919 92699 14600 74248 249 5 00000]0835z S3	M8	MON
0830z	16/12[371 too weak to copy]0835z S1	M8	MON
8240kHz1300z	02/12[831 207 5 33796 13677 74526 46647 79302 207 5 00000]1305z S1	M8	MON
8260kHz1210z	07/12[254 980 6 46062 68672 97478 39685 30485 96632 980 6 00000]1215z Very Strong	Topol, FR	SAT
8420kHz1300z	02/12[831 207 5 33796 13677 74526 46647 79302 207 5 00000]1305z S1	M8	MON
1300z	09/12[831 207 5 33796 13677 74526 46647 79302 207 5 00000] 1305z Very Weak	Topol	MON
1300z	16/12[831....too weak to copy]1305z	M8	MON
8680kHz1200z	07/12[254 980 6 46062 68672 97478 39685 30485 96632 980 6 00000] Very strong, weak noise	FR	SAT
9135kHz 0810z	24/12[352 470 6 = 21816 42997 94184 47374 74154 08531]	Gert, M8	TUE
9170kHz1510z	03/12[537 429 6 45847 23013 89758 41412 55678 06675 429 6 00000]1515z S4	M8, Topol	TUE
1510z	24/12[537 941 6 57024 87757 72785 54876 86950 11836 941 6 00000]1515z S2	M8	TUE
9260kHz0840z	04/12[328 904 5 05899 50387 45847 23013 89758 904 5 00000]0845z S9+10	M8, Topol	WED
0840z	11/12[328 904 5 05899]	FN, M8	WED
0840z	18/12[328 910 5 45324 67653 89760 13214 56437 910 5 00000]0845z S9	M8	WED
9270kHz0840z	02/12[371 249 5 52401 62919 92699 14600 74248 249 5 00000]0845z S4	M8	MON
0840z	16/12[371 too weak to copy]0845z S1	M8	MON

10265kHz0800z	24/12[352 470 6 15816? 99742 99184? 47374 74154 08531 370 6 00000]0805z very weak	M8	TUE
10635kHz1310z	02/12[831 207 5 33796 13677 74526 46647 79302 207 5 00000]1315z S4	M8	MON
1310z	09/12[831 207 5 33796 13677 74526 46647 79302 207 5 00000] 1315z Very Weak	Topol	MON
1310z	16/12[831 594 6?...too weak to copy]1315z	M8	MON
1310z	23/12[831 594 6 88620 58069 61732 74537 57440 10597]	Gert	MON
10920kHz1210z	19/12[425 961 7 56024 87757 72785 54876 15595 52235 52442 961 7 00000]1215z S9+10	M8	THU
11415kHz0850z	04/12[328 904 5 05899 50387 45847 23013 89758 904 5 00000]0855z S9+10	M8	WED
0850z	11/12[328 904 5 05899]	FN, M8	WED
0850z	18/12[328 910 5 45324 67653 89760 13214 56437 910 5 00000]0855z S9+10	M8	WED
11780kHz0930z	13/12[516 403 7 53038 76342 15009 84090 09531 88430 75940 403 7 00000]0935z S9+20	M8	FRI
0930z	20/12[516 479 8 88620 78157 67402 47551 30076 95721 37756 00921 479 8 00000] Strong	FR, M8, Spectre	FRI
11830kHz0840z	04/12[745 903 6 21767 53672 11834 81022 36803 41412 903 6 00000]0840z S9+10	M8	WED
0840z	11/12[745 903 6 21767]	FN, M8	WED
0845z	18/12[745 208 6 95224 45279 24035 48115 48521 63888 208 6 00000]0835z S8	M8	WED
12155kHz1200z	19/12[425 961 7 56024 87757 72785 54876 15595 52235 52442 961 7 00000]1205z S9+20	M8	THU
12365kHz1000z	04/12[729 841 5 52710 63919 92699 14600 74248 841 5 00000]1005z S9+20	M8	WED
1000z	11/12[729 841 5 52710]	FN, M8	WED
1000z	18/12[729 408 5 57634 80756 34195 78521 90784 408 5 00000]1005z S9+20	M8	WED
12530kHz0910z	02/12[872 409 5 46062 68672 97478 39685 30485 409 5 00000]0915z S8	M8	MON
12570kHz0940z	13/12[516 403 7 53038 76342 15009 84090 09531 88430 75940 403 7 00000]0945z S9+30	M8	FRI
0940z	20/12[516 479 8 88620 78157 67402 47551 30076 95721 37756 00921 479 8 00000] Very strong, QRM	FR, M8	FRI
12830kHz0910z	16/12[872 954 6 47550 10597 23521 47660 92883 69901 954 6 00000]]0905z S1	M8	MON
12952kHz0900z	19/12[167 439 5 65906 66610 20336 17301 88554 439 5 00000]0905z S9+10	M8, Spectre	THU
13565kHz0910z	19/12[167 439 5 65906 66610 20336 17301 88554 439 5 00000]0905z S9+10	M8, Spectre	THU
14280kHz1010z	04/12[729 841 5 52710 63919 92699 14600 74248 841 5 00000]1015z S9+10	M8	WED
1010z	11/12[729 841 5 52710]	FN, M8	WED
1010z	18/12[729 408 5 57634 80756 34195 78521 90784 408 5 00000]1015z S9+20	M8	WED
14675kHz0900z	02/12[872 409 5 46062 68672 97478 39685 30485 409 5 00000]0905z S9+10	M8	MON
0900z	16/12[872 954 6 47550 10597 23521 47660 92883 69901 954 6 00000]]0905z S3	M8	MON

PoSW notes:

As with other schedules of this family of number stations, seasonal changes of frequency in November.

Saturday Weekly 1600 or 1605 UTC Schedule:-

2-Nov-13:- 1600 UTC, 7,397 kHz, "764 764 764 00000". S9 with interference from a BC station on a nearby frequency. This frequency, + or - a few kHz, used in January and February of this year. 1605 UTC frequency should be in the region of 5,943.

9-Nov-13:- 1605 UTC, 5,943 kHz - as predicted! "764 764 764 00000", interference from what sounded like a "DRM" broadcaster on a close frequency - are there any radios available for receiving this mode? - removed by receiving in USB mode.

23-Nov-13:- 1600 UTC, 7,387 kHz, "764 764 764 00000".

14-Dec-13:- 1605 UTC, 5,943 kHz, "764 764 764 00000", with DRM interference.

Saturday Weekly 1930 or 1935 UTC Schedule:-

9-Nov-13:- 1930 UTC, 3,172 kHz, "426 426 426 00000", local interference from Chinese made electronic gadgets as the locals settle down for an evening of "Big Brother's Got Celebrity X-Factor Talent Dancing On Ice".
This frequency used in January and February, alternative 1935 UTC 3,834 or thereabouts.

16-Nov-13:- 1935 UTC, 3,834 kHz, "426 426 426 00000", peaking S9.

7-Dec-13:- 1930 UTC, 3,172 kHz, "426 426 426 00000", peaking S9, over-riding local interference.

First + Third Saturdays in the Month 2000 + 2100 UTC Schedule:-

16-Nov-13:- 2000 UTC, 4,038 kHz, seasonal change of frequency, 4,038 kHz used in January and February of this year, and 3,563 kHz, give or take, at 2100 UTC. And its a full message! Unusual with this schedule! Calling "319", DK/GC "785 785 40 40".
2000 UTC, 3,569 kHz, second sending, inside 80 metre amateur band, some weak CW interference.

7-Dec-13:- 2000 UTC, 4,028 kHz, "319 319 319 00000", noisy frequency, fast FSK signal on close frequency.
2100 UTC, 3,569 kHz, second transmission, S9 and no amateur CW interference this evening!

First + Third Saturdays in the Month 2030 + 2130 UTC Schedule:-

16-Nov-13:- 2030 UTC, 4,784 kHz, "857 857 857 00000". S9+ signal on a clear frequency.
2130 UTC, 4,017 kHz, second sending. As with the other schedules, these two frequencies were used in the first two months of 2013.

7-Dec-13:- 2030 UTC, 4,784 kHz, "857 857 857 00000", S9 with QSB.
2130 UTC, 4,017 kHz, second sending, S8 to S9 on a clear frequency.

Monday + Thursday 1900 or 1905 UTC Schedule:-

4-Nov-13, Monday:- 1905 UTC, 3,838 kHz, "349 349 349 00000". Weak signal made worse by local QRM. S06 appeared to vanish for a few seconds.

7-Nov-13, Thursday:- 1905 UTC, 3,838 kHz, "349 349 349 00000". Peaking S9, stronger than last time.

11-Nov-13, Monday:- 1905 UTC, 3,838 kHz, "349 349 349 00000", S6 to S7 with the usual local interference.

14-Nov-13, Thursday:- 1905 UTC, 3,838 kHz, "349 349 349 00000".

18-Nov-13, Monday:- 1900 UTC, 3,192 kHz, "on the hour" for a change, still "349 349 349 00000". Very strong "XJT" roaring away on the HF side making for difficult copy.

21-Nov-13, Thursday:- 1900 UTC, 3,192 kHz, "349 349 349 00000", with strong "XJT" for company.

25-Nov-13, Monday:- 1900 UTC, 3,192 kHz, "349 349 349 00000", with "XJT".

2-Dec-13, Monday:- 1900 UTC, 3,192 kHz, "349 349 349 00000", that "XJT" won't go away!

5-Dec-13, Thursday:- 1900 UTC, 3,192 kHz, "349 349 349 00000" with "XJT".

9-Dec-13, Monday:- 1900 UTC, 3,192 kHz, "349 349 349 00000", and the "XJT" has gone!
S06 up to S9, reasonably clear apart from local QRM.

Second + Fourth Mondays in the Month 1915 + 2015 UTC Schedule:-

11-Nov-13:- 1915 UTC, 8,180 kHz, "805 805 805 00000", peaking S9.
2015 UTC, 6,830 kHz, second sending, these two frequencies were used in November last year.

25-Nov-13:- 1915 UTC, 8,180 kHz, "805 805 805 00000", S9 to S9+.
2015 UTC, 6,830 kHz, second sending, S9 signal.

9-Dec-13:- 1915 UTC, 8,095 kHz, "415 415 415 00000". Weak signal, not found until just before 1918 UTC. Same call as in December last year, could only find the 2015 UTC sending then which was on 5,140 kHz.
2015 UTC, 5,140 kHz, second sending on the same frequency as in December 2012. Much stronger signal, up to S9.

S11a[III]

S11a log Nov/Dec:

6433kHz	1020z	06/11 [229/33 24857 14367 70489 16389 70266…..35072] Fair	RNGB, Guy	WED
	1020z	13/11 [221/00]	RNGB	WED
	1020z	16/11 [221/00] Konec 1023z	Thomas	SAT
	1020z	27/11 [221/00] Konec1023z S1	Malc	WED
	1020z	14/12 [221/00] Konec 1023z S1	Malc	SAT
	1020z	18/12 [221/00] Konec 1023z S5	Malc	WED
	1020z	21/12 [221/00] Konec 1023z S4	Malc	SAT
7504kHz	0915z	01/11 [484/00]	RNGB, Fox	FRI
	0915z	05/11 [484/00]	RNGB	TUE
	0915z	12/11 [484/33 08489 68028 34577 95965 37522…..37669] Fair	RNGB	TUE
	0915z	15/11 [484/33 08489 etc] repeat of Tuesday	Fox	FRI
	0915z	19/11 [484/00]	RNGB	TUE
	0915z	26/11 [484/00]	RNGB	TUE
	0915z	29/11 [484/00] QSA3 QRK2	CHPA, Malc	FRI
	0915z	03/12 [484/00] Konec 0918z S4	Malc	TUE
	0915z	17/12 [483/37 43362 16316 16932 38502 56106…..07599]	RNGB	TUE
	0915z	20/11 [483/37 43362 16316 16932 38502 56106…..07599]	Fox	FRI
9610kHz	1020z	01/11 [426/00]	RNGB	FRI
	1020z	05/11 [425/30 87949 83765 45276 84996 80055…..64750] Fair	RNGB	TUE
	1020z	22/11 [426/00]	RNGB	FRI
	1020z	03/12 [425/33…..] (message not copied) Konec 1030z S2	Malc	TUE
	1020z	10/12 [426/00] Good	RNGB	TUE
	1020z	11/12 [221/00]	Fritz	WED
	1020z	17/12 [426/00]	RNGB	TUE
	1020z	24/12 [426/00] Konec 1023z S6	Malc	TUE
12530kHz	1015z	04/11 [471/36 55314 49283 63795 66226 84509…..55158] Good	RNGB	MON
	1015z	11/11 [475/00]	RNGB	MON
	1015z	14/11 [475/00]	Marco	THU
	1015z	18/11 [475/00]	RNGB	MON
	1015z	25/11 [475/00] Good	RNGB	MON
	1015z	16/12 [479/32 27871 34651 88556 05207 64090…..82771]	RNGB	MON
	1015z	23/12 [475/00]	RNGB	MON
	1015z	30/12 [475/00] Good	RNGB	MON

S21

Nil reports to date [includes M45 too].

V02a

7554kHz 2000z	05/11 Garbled as transmitted in CW mode	TUE
7554kHz 2000z	07/11[A 04131 28761 32882] garbled due to CW mode	THU
7554kHz 2000z	12/11[34322 47142 78410] not 100% sure of callups 2 and 3 as TX in CW/LSB mode	TUE
7554kHz 2000z	26/12[----- ----- 24182] Ended at 2037z with 3 X Final	THU
7554kHz 2000z	31/12[A 27211 38841 42372] Only readable in LSB mode. TX started at 1955z.	TUE

V07 November 2013:

14374kHz0140z	03/11[883 883 883 1 133 53 94293 54937 ...83033 000 000]QSA 2	DanAR	SUN
15874kHz0120z	03/11[883 883 883 1 133 53 94293 54937 ...83033 000 000]QSA 3	DanAR	SUN
0120z	10/11[883 883 883 000 000]	T	SUN
0120z	24/11[883 883 883 000 x5] QSA 2	DanAR	SUN
18074kHz0100z	03/11[883 883 883 1 133 53 94293 54937 ...83033 000 000]QSA 3	DanAR	SUN

883 883 883 1 (X5)
133 53 (X2)
94293 54937 31318 54275 81128
37933 39939 15022 51507 33743
39983 79925 05279 50902 73795
03389 01231 35851 44422 93817
33973 05891 94337 39875 98377
40708 75029 37033 05371 15183
72715 98893 87833 25195 03313
39329 31339 34330 21831 99573
17780 39730 38359 00377 43331
72551 40281 92824 28953 54119
37881 99908 83033 000 000
Courtesy DanAr

18074kHz 0100z	10/11[883 883 883 000 000]	T, DanAR	SUN
0100z	24/11[883 883 883 000 x5] QSA 2	DanAR	SUN

December2013:

12137kHz0140z	01/12[661 661 661 1] x5, [565 85] x2, 85 [72334 94981 .....77154 000 000]	T, DanAr	SUN
0140z	15/12 QSA1 QRM5 from BC 12140kHz I´m not sure if V07´s signal was there *confirmed by T*	DanAR	SUN
14637kHz0120z	01/12[661 661 661 1] x5, [565 85] x2, 85 [72334 94981 .....77154 000 000]	T, DanAr	SUN
0120z	08/12[661 661 661 000 (x5)] QSA3	DanAR	SUN
0120z	15/12[661 661 661 1 (x5) 292 83 (x2) 38832 51331 .....53295 000 000] QSA3	DanAR	SUN
0120z	22/12[661 661 661 000 (x5)] QSA3 Transmission with a little hum	DanAR	SUN
0120z	29/12[661 661 661 000 (x5)] QSA2	DanAR	SUN
16037kHz0100z	01/12[661 661 661 1] x5, [565 85] x2, 85 [72334 94981 .....77154 000 000]	T, DanAr	SUN
0100z	08/12[661 661 661 000 (x5)] QSA2	DanAR	SUN
0100z	15/12[661 661 661 1 (x5) 292 83 (x2) 38832 51331 .....53295 000 000] QSA2	DanAR	SUN

661 661 661 1 (x5) 292 83 (x2)
38832 51331 20852 48139 99474
93137 71173 58273 03703 35949
87251 10172 93823 14780 20039
30897 32553 27723 34400 40540
20484 33412 74838 40550 59933
22148 51974 32513 03793 42037
12804 19353 72395 90448 73127
07832 95810 28373 42395 35124
01414 39892 42177 38155 22734
98509 24001 58100 77373 94733
72114 32851 01997 35311 90893
42388 50921 88290 17228 22998
13572 88911 45334 75534 55347
89943 32139 17480 98831 84432
44814 27777 44743 08859 23274
45422 25390 47123 20752 17710
53335 32928 53295 000 000
Courtesy DanAR

16037kHz 0100z	22/12[661 661 661 000 (x5)] QSA2	DanAR	SUN
0100z	29/12[661 661 661 000 (x5)] QSA1	DanAR	SUN

V13

8300kHz 1305z	07/11 ends 1326z	MG	THU
8300kHz0600z	10/11 New Star. Tune followed by coded messages	AB	SUN
9522kHz0700z	10/11 New Star. Tune followed by coded messages	AB	SUN
0813z	10/11 New Star. Tune i.p	AB	SUN

V21 Babbler

Highlights as follows.

20/11 SS/YL up on 6625kHz, a rare appearence. Skips some numbers and says "1" instead of 21 and 31
26/11 SS/OM reading numbers without pausing.

V21 6529kHz 1300z 1/11 [70, 35 END] Already in progress at 1258z. FRI

V21 6529kHz 1400z 4/11 Too weak to copy, note time change with daylight savings. MON

V21 6529kHz 1400z 7/11 Fades in at 33 counting to 50, 40, 50, 20, 50, 40, 30 END. Extremely weak TX. THU

V21 6529kHz 1400z 8/11 Present but too weak to copy. FRI

V21 6529kHz 1400z 11/11 Present but too weak to copy. MON

V21 6529kHz 1400z 12/11 [30, then too weak to copy. TX lasted approximately 9 minutes]

V21 6529kHz 1400z 14/11 [20, 50, 50, 50, 50, 50, 50, 20 then too weak to copy for 2 minutes, 20, 50 becomes too weak to copy but continues for at least 10 more minutes. THU

V21 6529kHz 1400z 15/11 [start at 30 counting to 50, 50, counts to 30 then becomes too weak to copy. FRI

V21 6625kHz 1310z 20/11 [Comes up on 44 and counts to 54 skipping 51, 11, 10, 7, Starts at 2 counting to 40 except says 1 instead of 21 and 31. Count to 20. Start at 5 counting to 12. Start at 23 counting to 44. Count to 6. Start at 6 counting to 18. Start at 11 counting to 18. Start at 11 counting to 20. Count to 4, Count to 2. Count to 20, count to 5, Single 9 then 30, 31 END] SS/YL with very slow delivery. WED

V21 6529kHz 1400z 24/11 Too weak to copy then heard start at 11 counting to 50, 50, 40, 60, 50, 60, 50, 60, 50, unintelligible for about 2 minutes. 50, 50, 10 END. TX lasted approximately 12 minutes. SUN

V21 6529kHz 1400z 25/11 [10 END] MON

V21 6529kHz 1400z 26/11 [Heard from 40 counting to 50 then 50 then too weak to copy] TUE

V21 5637kHz 1430z 26/11 Very weak, one count to 40 heard. Continuous reading of numbers without pause unlike on 6529kHz. TX lasted at least 15 minutes. TUE

V21 6529kHz 1400z 27/11 [50, 50, Unintelligible for 1 minute, 60, 50, 30, 50, 30, 60, 50, 50, 40 END] TX lasted 11 minutes. WED

V21 6529kHz 1400z 28/11 [60, 50, 60, 50, next count fades at 40 too weak to copy for 5 minutes then 40, 40, 40, 10, 10, 20 END] THU

V21 6529kHz 1400z 29/11 [60, 30, 50, 50, 60, 50, 50, 50, 50, Unintelligible for about 1 minute, 40, too weak to copy for 6 minutes, 40, 50, 30, 40, END] Entire TX was very weak and lasted 20 minutes. FRI

V21 6529kHz 1400z 30/11 [Too weak to copy for about 5 minutes then a count to 50 heard. 50, 50, 50, 60, 50, 50, 50, Cuts out at 45 on the next count. END] TX lasted 13 minutes. SAT

V21 6529kHz 1400z 1/12 [50, 50, 50, 50, 50, 50, 40, 40, 50, 50, 50, 50, 50, 40, 50, 50, 10 END] TX lasted 11 minutes. SUN

V21 6529kHz 1410z 2/12 [Too weak for first two minutes then 50, 40, some more counts to 40 and 50 heard but generally too weak to copy. TX lasted 22 minutes.] MON.

V21 6529kHz 1405z 3/12 [60, start at 10 count to 40, 50, 40, 40, 40, 60, 50, (very weak. TX continued for another 4 minutes but noise levels increased to the point where the TX was unreadable] TX lasted 17 minutes. TUE

V21 6529kHz 1400z 4/12 [60, 50, 50, 50, 40, 30, 40 END] TX Lasted 8 minutes. WED

V21 6529kHz 1400z 5/12 [60, 50, 40, (Too weak to copy for 2 minutes), 40, 50, 50, (Too weak to copy for about 5 minutes), 30, 30, 40, 50 END] TX lasted approximately 15 minutes. THU

V21 6529kHz 1400z 7/12 [60, 60, 50, 50, 50, 60, 60, 50, 40, 40, 40, 40, 60, 40, 30 END] TX lasted 10 minutes. SAT

V21 6529kHz 1400z 8/12 [Too weak to copy at first but first count finishes at 50, 40, 60, 50, 50, 50, 50, 10 END] Very weak. SUN

V21 6529kHz 1400z 9/12 [30, 40, 50, 60, 50, 50, 30 (didnt pause at 20), 50, END] MON

V21 6529kHz 1400z 10/12 [50, 50, 50, 60, 50, 50, 40, 30 END] TX Lasted 6 minutes. TUE

V21 6529kHz 1400z 11/12 Mostly unreadable due to high noise levels. One count from 70 to 90 heard and another from 40 to 70. TX lasted approximately 15 minutes. WED

V21 6529kHz 1400z 13/12 [30, Then too weak to copy for 4 minutes. 50, 50, 50, 40, 30, 40, then becomes unreadable.] TX lasted 11 minutes. FRI

V21 6529kHz 1400z 14/12 [40, 50, 50, 50, 40, 50, 40, 50, 40, 40, 40, (next count unreadable), 40, 20, 20, 50, 40, 40, 10, 20, 20, (Tx becomes too weak to copy but continues for several minutes.] SAT

V21 6529kHz 1400z 16/12 [50, 50, 50, Next count not copied, 50, 10, 30, 40, 50, 50, 50, 50, 40, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50? END] Fast delivery today. TX lasted 17 minutes. MON

V21 6529kHz 1400z 17/12 [30, 60, 100, TX continues for 15 minutes more but is too weak to copy.] TUE

V21 6529kHz 1400z 18/12 [Begins at 20 counting to 50, 50, unintelligible for 1 minute, 50, 50, 50, Start at 20 counting to 30, 40, 30, 30 too weak to copy for 3 minutes, 40, 40, 60, 30, 40, 50, 30, 50, Becomes too weak to copy but continues for 4 more minutes. END] TX lasted approximately 23 minutes. WED

V21 6529kHz 1400z 20/12 [50, 50, 50, 40, 50, 50, 50, 50, 50, 50, 50, Disappears into the noise for about 4 minutes,50, 50, becomes too weak to copy.] TX lasted at least 12 minutes. FRI

V21 6529kHz 1400z 21/12 Too weak to copy SAT

V21 6529kHz 1400z 22/12 [100, 90, 100, 90, 90, 90, 30, Too weak to copy for 5 minutes, 100, one more count but became too weak to copy. TX lasted 23 minutes SUN

V21 5637kHz 1410z 23/12 Found in progress one count pausing on 33 was heard. TX lasted at least 10 minutes MON

V21 6529kHz 1400z 23/12 [40, 50, 50, 50, 40, 50, 30, 50, 40, 40, 40, 20 (3 minute pause before the next count) 30, 20, 20, 20 END] Early christmas present as the TX was much stronger than usual. MON

V21 6529kHz 1400z 24/12 Recording failure but TX was heard in progress. TUE

V21 6529kHz 1400z 25/12 [Too weak to copy for first 2 minutes intelligible at 70 counting to 100, 30, 90, 90, Becomes too weak to copy] TX lasted 10 minutes. WED

V21 6529kHz 1400z 26/12 [30, 40, 20, 40, 40, 30, 50, (too weak to copy for 1 minute), 30, 50, 50, 20, 10, 20, 30, 20, 10, 60, 20, 50, 30, 50, 30, 50, 30, 20 END] TX Lasted 17 minutes. THU

V21 6529kHz 1400z 27/12 [40, 20, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50 (pause at 37), 50, 30 END] TX lasted 12 minutes. FRI

V24

T writes:
Last month, early October, 2013, I noticed I was not hearing much from V24 or M94. My assumption was that the schedule I built up at the beginning of the year was just not accurate anymore, and a new schedule was needed. So I started to monitor closely, and build up a new schedule to publish.

What I found is that V24 has almost ceased operation, and no M94 transmissions have been sent, that I am aware of, in over 6 weeks.

Examples of activity levels. In May of 2013 I heard 62 V24 transmissions, and 4 M94 transmissions. In the last 6 weeks, the second half of October combined with all of November, I have heard eight V24 transmissions and no M94 transmissions at all, in the past I would have expected there to be on the order of 90 V24 transmissions and 6 or more M94's. In that 6+ weeks (part of Oct and all of Nov) monitored every known V24 and M94 frequency, past and present, 24 hours a day. I also looked for new frequencies, and so far found no indication of any in use.
It appears that V24 / M94 has either greatly reduced operations or it has moved a large part of its operations to frequencies / times I have not been able to locate.

V24 and M94 receptions, 16 October to 29 November, 2013.

V24 6310 kHz 05/11/2013 1430 UTC

V24 6310 kHz 06/11/2013 1430 UTC

V24 6310 kHz 06/11/2013 1530 UTC

V24 4900 kHz 08/11/2013 1300 UTC

V24 4900 kHz 12/11/2013 1300 UTC

V24 4900 kHz 13/11/2013 1300 UTC

V24 6310 kHz 15/11/2013 1430 UTC

V24 6310 kHz 16/11/2013 1430 UTC

V24 has had even less activity in December than it had in November, 2013. M94 has not been seen in over 2 months. Only 7 transmissions were heard this month from V24, and they were all on 6310 kHz. Last month there were 8 transmissions using 2 frequencies.
I still hold out hope to find that the station has not reduced operations, but only moved to frequencies unknown, however I have been looking for new frequencies for over 2 months now, and so far have not found any. I would certainly like to be wrong, but this station might be winding down operations.

From T

V24 6310 kHz 05/12/2013 1430 UTC

V24 6310 kHz 06/12/2013 1430 UTC

V24 6310 kHz 15/12/2013 1300 UTC

V24 6310 kHz 15/12/2013 1430 UTC

V24 6310 kHz 16/12/2013 1430 UTC

V24 6310 kHz 22/12/2013 1300 UTC

V24 6310 kHz 23/12/2013 1300 UTC

V30

V30 has also been "normally" active this month. Although V30 has not been being reported often, it has been transmitting. Most days that have a M97 transmission also have a V30 transmission one hour later. In fact generally very close to exactly one hour later, and the start times for V30 move forward (earlier each day) by the same amount as M97.

While some days may have M97 and no V30, I have almost never seen a V30 without an M97 earlier that same day. So if you hear an M97 at ~1500 UTC there is a good chance there will be a V30 at ~1600 UTC. But if there is no M97 there almost certainly will be no V30.

V30 (all transmissions this month, to December 29, 2013)

10255 kHz, 1559z, 19 December, 2013, (SD 75, SN 35, message x3), Token, Thu

10255 kHz, 1559z, 20 December, 2013, (SD 75, SN 35, message x3), Token, Fri

10255 kHz, 1559z, 23 December, 2013, (SD 75, SN 35, message x3), Token, Mon

10255 kHz, 1559z, 24 December, 2013, (SD 75, SN 35, message x3), Token, Tue

10255 kHz, 1559z, 26 December, 2013, (SD 75, SN 35, message x3), Token, Thu

10255 kHz, 1559z, 27 December, 2013, (SD 75, SN 35, message x3), Token, Fri

T has uploaded a video of the v30 transmission on December 23, 2013, to his Youtube channel:

http://www.youtube.com/watch?v=1zagxoJat2A

Polytones:

XPA c November

11409kHz0700z	02/11[456 1 07203 00155 51346 57165] Very strong	(4m00s)	PLdn	SAT
13509kHz0720z	02/11[456 1 07203 00155 51346 57165] Very strong	(4m00s)	PLdn	SAT
14609kHz0740z	02/11[456 1 07203 00155 51346 57165] Very strong	(4m00s)	PLdn	SAT
11409kHz0700z	06/11[456 000 02759 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
13509kHz0720z	06/11[456 000 02759 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
14609kHz0740z	06/11[456 000 02759 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
11409kHz0700z	09/11[456 000 05104 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
13509kHz0720z	09/11[456 000 05104 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
14609kHz0740z	09/11[456 000 05104 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
11409kHz0700z	13/11[456 1 08382 00175 13307 25324] Very strong, QSB2	(4m13s)	PLdn	WED
13509kHz0720z	13/11[456 1 08382 00175 13307 25324] Very strong	(4m13s)	PLdn	WED
14609kHz0740z	13/11[456 1 08382 00175 13307 25324] Very strong	(4m13s)	PLdn	WED
11409kHz0700z	16/11[456 1 08382 00175 13307 25324] Very strong	(4m13s)	PLdn	SAT
13509kHz0720z	16/11/[456 1 08382 00175 13307 25324] Strong	(4m13s)	PLdn	SAT
14609kHz0740z	16/11[456 1 08382 00175 13307 25324] Fair, QSB2	(4m13s)	PLdn	SAT
11409kHz0700z	20/11[456 1 000 03338 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
13509kHz0720z	20/11[456 1 000 03338 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
14609kHz0740z	20/11[456 1 000 03338 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
11409kHz0700z	23/11[456 1 09273 00213 61127 35646] Strong	(4m38s)	PLdn	SAT
13509kHz0720z	23/11[456 1 09273 00213 61127 35646] Strong	(4m38s)	PLdn	SAT
14609kHz0740z	23/11[456 1 09273 00213 61127 35646] Strong	(4m38s)	PLdn	SAT
11409kHz0700z	27/11[456 1 07303 00225 12883 02255] Very strong	(4m44s)	PLdn	WED
13509kHz0720z	27/11[456 1 07303 00225 12883 02255] Very strong	(4m44s)	PLdn	WED
14609kHz0740z	27/11[456 1 07303 00225 12883 02255] Very strong	(4m44s)	PLdn	WED
11409kHz0700z	30/11[456 000 02910 00001 00000 10140] Strong	(2m26s)	PLdn	SAT
13509kHz0720z	30/11[456 000 02910 00001 00000 10140] Strong	(2m26s)	PLdn	SAT
14609kHz0740z	30/11[456 000 02910 00001 00000 10140] Strong	(2m26s)	PLdn	SAT

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7756kHz0700z	04/12[706 000 02528 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
9056kHz0720z	04/12[706 000 02528 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
10656kHz0740z	04/12[706 000 02528 00001 00000 10140] Very strong	(2m26s)	PLdn	WED

7756kHz0700z	07/12[706 000 06861 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
9056kHz0720z	07/12[706 000 06861 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
10656kHz0740z	07/12[706 000 06861 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
7756kHz0700z	11/12[706 000 01892 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
9056kHz0720z	11/12[706 000 01892 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
10656kHz0740z	11/12[706 000 01892 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
7756kHz0700z	14/12[706 000 07709 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
9056kHz0720z	14/12[706 000 07709 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
10656kHz0740z	14/12[706 000 07709 00001 00000 10140] Very strong	(2m26s)	PLdn	SAT
7756kHz0700z	18/12[706 1 06301 00207 70520 76457] Very strong	(4m33s)	FR, PLdn	WED
9056kHz0720z	18/12[706 1 06301 00207 70520 76457] Very strong	(4m33s)	FR, PLdn	WED
10656kHz0740z	18/12[706 1 06301 00207 70520 76457] Very strong	(4m33s)	FR, PLdn	WED

Analysis by Rivet:
Block Sync
4444444444
Block Sync
706 706 706 1 706 706 706 1 706 706 706 1
Block Sync
4444444444
Block Sync
6
Message Start
06301 00207 70520 07928 72251 49266 14929 12996 15862 50980 09342 49008 57749 09603 43274
00647 17838 81626 90111 41066 75082 62884 61457 68801 47782 39733 93176 40172 93066 09877
44298 42997 58634 38988 43885 30970 84790 06176 57603 82972 70780 15916 66616 21683 90278
75419 51836 59252 59939 50289 34999 63046 35939 91581 96661 99441 72440 27802 31997 55577
99421 73458 20097 26921
Block Sync
47017 50835 93719 25545 89100 18726 28236 24256 49911 22081 70569 24953 01921 89360 56238
29653 30017 08631 83801 69013 83398 90045 50616 01876 47196 89927 27539 44766 95000 33038
32426 53647 55272 81419 66338 77061 76804 84961 64004 64302 63671 55792 13967 32849 60536
32979 70597 13650 30754 12969 46984 67663 97542 63043 44541 37430 90650 49134 64791 18039
12611 15748 85382 22776
Block Sync
55958 85225 29974 29818 15934 05100 85981 93884 96515 34030 03069 06582 00438 26935 10195
24605 64488 10509 85516 93526 83080 08064 76884 27840 54404 98392 14862 74462 75445 29667
22871 75364 21302 67440 54236 18542 30731 40554 37505 22054 00475 70016 54967 80400 40808
74521 66258 88486 83118 79484 56979 98536 68734 74994 96243 31855 01661 07488 11982 30232
96448 58098 36420 14384
Block Sync
75251 70271 05293 91176 75852 12354 70977 28601 12333 35959 03430 31039 53143 41749 77133
63376 48710 76457

Courtesy FR

7756kHz0700z	21/12[706 1 06301 00207 70520 76457] Fair	(4m33s)	PLdn	SAT
9056kHz0720z	21/12[706 1 06301 00207 70520 76457] Fair	(4m33s)	PLdn	SAT
10656kHz0740z	21/12[706 1 06301 00207 70520 76457] Very weak	(4m33s)	PLdn	SAT
7756kHz0700z	25/12[706 000 05773 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
9056kHz0720z	25/12[706 000 05773 00001 00000 10140] Very strong	(2m26s)	PLdn	WED
10656kHz0740z	25/12[706 000 05773 00001 00000 10140] Weak	(2m26s)	PLdn	WED
7756kHz0700z	28/12[706 000 01158 00001 00000 10140] Fair	(2m26s)	PLdn	SAT
9056kHz0720z	28/12[706 000 01158 00001 00000 10140] Weak and noisy	(2m26s)	PLdn	SAT
10656kHz0740z	28/12[706 000 01158 00001 00000 10140] Fair	(2m26s)	PLdn	SAT

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8123kHz1900z	05/11[158 1 00843 00155 04488 04402] Weak, QRM3	(4m01s)	PLdn, RNGB	TUE
7523kHz1920z	05/11[158 1 00843 00155 04488 04402] Weak, QRM3	(4m01s)	PLdn	TUE
6823kHz1940z	05/11[158 1 00843 00155 04488 04402] Weak	(4m01s)	PLdn	TUE
8123kHz1900z	07/11[158 1 00843 00155 04488 04402] Fair	(4m01s)	PLdn	THU
7523kHz1920z	07/11[158 1 00843 00155 04488 04402] Fair, BCQRM3	(4m01s)	PLdn	THU
6823kHz1940z	07/11[158 1 00843 00155 04488 04402] Fair	(4m01s)	PLdn	THU
8123kHz1900z	12/11[158 1 09357 00183 25478 (43353)] Fair, XJTQRM4	(4m20s)	PLdn	TUE
7523kHz1920z	12/11[158 1 09357 00183 25478 (43353)] Fair, BCQRM3/4	(4m20s)	PLdn	TUE
6823kHz1940z	12/11[158 1 09357 00183 25478 (43353)] Weak, QRM3/4	(4m20s)	PLdn	TUE
8123kHz1900z	14/11[Not readable] Weak, XJTQRM4	(4m20s)	PLdn	THU
7523kHz1920z	14/11[Not readable] Weak, BCQRM4	(4m20s)	PLdn	THU
6823kHz1940z	14/11[158 1 09357 00183 25478 43353] Weak	(4m20s)	PLdn	THU

8123kHz1900z	19/11[Not readable] Weak, XJTQRM4/5		PLdn	TUE
7523kHz1920z	19/11[Not readable] Weak, BCQRM4/5		PLdn	TUE
6823kHz1940z	19/11[158 000 (04631) 00001 00000 10140] Weak, noisy, virtually unreadable	(2m26s)	PLdn	TUE
8123kHz1900z	21/11[Not readable] Extremely weak and noisy		PLdn	THU
7523kHz1920z	21/11[Not readable] Extremely weak and noisy		PLdn	THU
6823kHz1940z	21/11[Not readable] Extremely weak and noisy msg 3m27s?		PLdn	THU
8123kHz 1900z	26/11[Not readable] Weak, XJTQRM4/5		PLdn	TUE
7523kHz 1920z	26/11[Not readable] Weak, BCQRM4/5		PLdn	TUE
6823kHz 1940z	26/11[158 1 05824 00209 73380 65157] Weak, readable.	(4m34s)	PLdn	TUE
8123kHz1900z	28/11 XJTQRM5		PLdn	THU
7523kHz1920z	28/11 BCQRM5		PLdn	THU
6823kHz1940z	28/11[158 1 05824 00209 73380 65157] Weak, readable.	(4m34s)	PLdn	THU

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8164kHz1900z	03/12[(138) 1 09831 00245 36267 43246] Weak, QSB3	(4m56s)	PLdn	TUE
7364kHz1920z	03/12 Weak, BCQRM4		PLdn	TUE
5864kHz1940z	03/12 Weak, BCQRM4		PLdn	TUE
8164kHz1900z	05/12 NRH		PLdn	THU
7364kHz1920z	05/12 BCQRM5		PLdn	THU
5864kHz1940z	05/12 Very Weak, odd characters only, BCQRM4		PLdn	THU
8164kHz1900z	10/12[138 000 04029 00001 00000 10140] Weak and noisy	(2m26s)	PLdn	TUE
7364kHz1920z	10/12 Weak, BCQRM4/5		PLdn	TUE
5864kHz1940z	10/12 NRH		PLdn	TUE
8164kHz1900z	12/12 Extremely weak Copy impossible		PLdn	THU
7364kHz1920z	12/12 Very weak, BCQRM4 Copy impossible		PLdn	THU
5864kHz1940z	12/12 BCQRM5 Copy impossible		PLdn	THU
8164kHz1900z	17/12 NRH		PLdn	TUE
7364kHz1920z	17/12 NRH		PLdn	TUE
5864kHz1940z	17/12 NRH		PLdn	TUE
8164kHz1900z	19/12 NRH		PLdn	THU
7364kHz1920z	19/12 NRH		PLdn	THU
5864kHz1940z	19/12 Very weak, message ~ 5m23s lg seen on spectral image		PLdn	THU
8164kHz1900z	24/12 NRH *24/12 intercept automatic and made from poor site/poor antenna*		PLdn	TUE
7364kHz1920z	24/12 NRH		PLdn	TUE
5864kHz1940z	24/12 NRH		PLdn	TUE
8164kHz1900z	26/12 Extremely weak, visible on spectral screen		PLdn	THU
7364kHz1920z	26/12 Weak, BCQRM4/5		PLdn	THU
5864kHz1940z	26/12 Weak, BCQRM4/5		PLdn	THU
8164kHz1900z	31/12 NRH		PLdn	TUE
7364kHz1920z	31/12 Extremely weak, under BCQRM4		PLdn	TUE
5864kHz1940z	31/12 NRH		PLdn	TUE

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18238kHz1300z	03/11[01441 00063 26158 71502] Very strong	(3m01s)	PLdn	SUN
16238kHz1320z	03/11[01441 00063 26158 71502] Very strong	(3m01s)	PLdn	SUN
14438kHz1340z	03/11[01441 00063 26158 71502] Very strong	(3m01s)	PLdn	SUN
18238kHz1300z	05/11[01441 00063 26158 71502] Very strong	(3m01s)	PLdn	TUE
16238kHz1320z	05/11[01441 00063 26158 71502] Very strong	(3m01s)	PLdn	TUE
14438kHz1340z	05/11[01441 00063 26158 71502] Very strong	(3m01s)	PLdn	TUE
18238kHz1300z	10/11[02002 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
16238kHz1320z	10/11[02002 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14438kHz1340z	10/11[02002 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
18238kHz1300z	12/11[09718 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
16238kHz1320z	12/11[09718 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14438kHz1340z	12/11[09718 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE

18238kHz1300z	17/11[04099 00073 33496 35256] Very strong	(3m06s)	PLdn	SUN
16238kHz1320z	17/11[04099 00073 33496 35256] Very strong	(3m06s)	PLdn	SUN
14438kHz1340z	17/11[04099 00073 33496 35256] Very strong	(3m06s)	PLdn	SUN
18238kHz1300z	19/11[04099 00073 33496 35256] Very strong	(3m06s)	PLdn	TUE
16238kHz1320z	19/11[04099 00073 33496 35256] Very strong	(3m06s)	PLdn	TUE
14438kHz1340z	19/11[04099 00073 33496 35256] Very strong	(3m06s)	PLdn	TUE
18238kHz1300z	24/11[02451 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
16238kHz1320z	24/11[02451 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14438kHz1340z	24/11[02451 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
18238kHz1300z	26/11[05735 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
16238kHz1320z	26/11[05735 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14438kHz1340z	26/11[05735 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE

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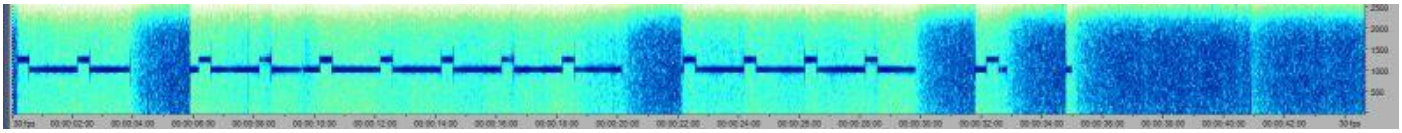
14538kHz1300z	01/12[02373 00075 00007 41212] Very strong	(3m09s)	PLdn	SUN
13538kHz1320z	01/12[02373 00075 00007 41212] Very strong	(3m09s)	PLdn	SUN
12138kHz1340z	01/12[02373 00075 00007 41212] Very strong	(3m09s)	PLdn	SUN



14538kHz1300z 08/12/2013 Illustrates points of failure; very strong signal

14538kHz1300z	08/12 Started very strong, breaks in transmission then QRT [See above]		PLdn	SUN
13538kHz1320z	08/12[06140 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
12138kHz1340z	08/12[06140 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14538kHz1300z	10/12[07498 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1320z	10/12[07498 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
12138kHz1340z	10/12[07498 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
14538kHz1300z	15/12[09758 00055 67246 41410] Very strong	(2m52s)	PLdn	SUN
13538kHz1320z	15/12[09758 00055 67246 41410] Very strong	(2m52s)	PLdn	SUN
12138kHz1340z	15/12[09758 00055 67246 41410] Very strong	(2m52s)	PLdn	SUN
14538kHz1300z	17/12 Started very strong, breaks in transmission 32s in, then QRT		PLdn	TUE
13538kHz1320z	17/12[09758 00055 67246 41410] Very strong	(2m52s)	PLdn	TUE
12138kHz1340z	17/12[09758 00055 67246 41410] Very strong	(2m52s)	PLdn	TUE
14538kHz1300z	22/12 Not monitored, auto monitor failed		PLdn	SUN
13538kHz1320z	22/12[01785 00069 18331 34546] Strong	(3m57s)	PLdn	SUN
12138kHz1340z	22/12[01785 00069 18331 34546] Strong	(3m57s)	PLdn	SUN
14538kHz1300z	24/12[01785 00069 18331 34546] Very strong	(3m57s)	PLdn	TUE
13538kHz1320z	24/12[01785 00069 18331 34546] Very strong	(3m57s)	PLdn	TUE
12138kHz1340z	24/12[01785 00069 18331 34546] Very strong	(3m57s)	PLdn	TUE
14538kHz1300z	29/12[06145 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
13538kHz1320z	29/12[06145 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
12138kHz1340z	29/12[06145 00001 00000 10140] Very strong	(2m11s)	PLdn	SUN
14538kHz1300z	31/12[09233 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
13538kHz1320z	31/12[09233 00001 00000 10140] Very strong	(2m11s)	PLdn	TUE
12138kHz1340z	31/12[09233 00001 00000 10140] Very strong, QRM2	(2m11s)	PLdn	TUE

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16073kHz0800z	04/11[03817 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14973kHz0820z	04/11[03817 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14373kHz0840z	04/11[03817 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
16073kHz0800z	06/11[05478 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
14973kHz0820z	06/11[05478 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
14373kHz0840z	06/11[05478 00001 00000 10140] Very strong	(2m11s)	PLdn	WED

16073kHz0800z	11/11[06955 00097 27752 25717] Very strong	(3m25s)	PLdn	MON
14973kHz0820z	11/11[06955 00097 27752 25717] Very strong	(3m25s)	PLdn	MON
14373kHz0840z	11/11[06955 00097 27752 25717] Very strong	(3m25s)	PLdn	MON
16073kHz0800z	13/11[06955 00097 27752 25717] Very strong	(3m25s)	PLdn	WED
14973kHz0820z	13/11[06955 00097 27752 25717] Very strong	(3m25s)	PLdn	WED
14373kHz0840z	13/11[06955 00097 27752 25717] Very strong	(3m25s)	PLdn	WED
16073kHz0800z	18/11[02879 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14973kHz0820z	18/11[02879 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14373kHz0840z	18/11[02879 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
16073kHz0800z	20/11[09723 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
14973kHz0820z	20/11[09723 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
14373kHz0840z	20/11[09723 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
16073kHz0800z	25/11[04522 00085 30952 30722] Very strong	(3m16s)	PLdn	MON
14973kHz0820z	25/11[04522 00085 30952 30722] Very strong	(3m16s)	PLdn	MON
14373kHz0840z	25/11[04522 00085 30952 30722] Very strong	(3m16s)	PLdn	MON
16073kHz0800z	27/11[04522 00085 30952 30722] Very strong	(3m16s)	PLdn	WED
14973kHz0820z	27/11[04522 00085 30952 30722] Very strong	(3m16s)	PLdn	WED
14373kHz0840z	27/11[04522 00085 30952 30722] Very strong	(3m16s)	PLdn	WED

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15861kHz0800z	02/12[05152 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14761kHz0820z	02/12[05152 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
13561kHz0840z	02/12[05152 00001 00000 10140] Very strong, HUMQRM2	(2m11s)	PLdn	MON
15861kHz0800z	04/12[03059 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
14761kHz0820z	04/12[03059 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
13561kHz0840z	04/12 HUMQRM5 obviated copy		PLdn	WED
15861kHz0800z	09/12[04757 00229 08610 46530] Very strong	(5m06s)	PLdn	MON
14761kHz0820z	09/12[04757 00229 08610 46530] Very strong	(5m06s)	PLdn	MON
13561kHz0840z	09/12[04757 00229 08610 46530] Very strong	(5m06s)	PLdn	MON
15861kHz0800z	11/12[04757 00229 08610 46530] Very strong	(5m06s)	PLdn	WED
14761kHz0820z	11/12[04757 00229 08610 46530] Very strong	(5m06s)	PLdn	WED
13561kHz0840z	11/12[04757 00229 08610 46530] Very strong	(5m06s)	PLdn	WED
15861kHz0800z	16/12[01140 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14761kHz0820z	16/12[01140 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
13561kHz0840z	16/12[01140 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
15861kHz0800z	18/12[03082 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
14761kHz0820z	18/12[03082 00001 00000 10140] Very strong	(2m11s)	PLdn	WED
13561kHz0840z	18/12[03082 00001 00000 10140] Very strong + localQRM	(2m11s)	PLdn	WED
15861kHz0800z	23/12[03561 00171 01117 06100] Very strong	(4m23s)	PLdn	MON
14761kHz0820z	23/12[03561 00171 01117 06100] Strong	(4m23s)	PLdn	MON
13561kHz0840z	23/12[03561 00171 01117 06100] Very strong	(4m23s)	PLdn	MON
15861kHz0800z	25/12[03561 00171 01117 06100] Weak	(4m23s)	PLdn	WED
14761kHz0820z	25/12[03561 00171 01117 06100] Fair	(4m23s)	PLdn	WED
13561kHz0840z	25/12[03561 00171 01117 06100] Very strong	(4m23s)	PLdn	WED
15861kHz0800z	30/12[09824 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
14761kHz0820z	30/12[09824 00001 00000 10140] Very strong	(2m11s)	PLdn	MON
13561kHz0840z	30/12[09824 00001 00000 10140] Very strong	(2m11s)	PLdn	MON

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17462kHz1400z	01/11[09415 00075 74475 06107] Very strong	(3m08s)	PLdn	FRI
16114kHz1420z	01/11[09415 00075 74475 06107] Strong, QSB2	(3m08s)	PLdn	FRI
14828kHz1440z	01/11[09415 00075 74475 06107] Very strong	(3m08s)	PLdn	FRI
17462kHz1400z	02/11[09415 00075 74475 06107] Very strong	(3m08s)	BR	SAT
16114kHz1420z	02/11[09415 00075 74475 06107] Very strong	(3m08s)	BR	SAT
14828kHz1440z	02/11[09415 00075 74475 06107] Very strong	(3m08s)	BR	SAT

17462kHz1400z	08/11[07148 00107 31365 46732] Very strong	(3m33s)	PLdn	FRI
16114kHz1420z	08/11[07148 00107 31365 46732] Very strong	(3m33s)	PLdn	FRI
14828kHz1440z	08/11[07148 00107 31365 46732] Very strong, QRN3	(3m33s)	PLdn	FRI
17462kHz1400z	09/11[07148 00107 31365 46732] Very strong	(3m33s)	PLdn	SAT
16114kHz1420z	09/11[07148 00107 31365 46732] Very strong	(3m33s)	PLdn	SAT
14828kHz1440z	09/11[07148 00107 31365 46732] Very strong	(3m33s)	PLdn	SAT
17462kHz1400z	15/11[03330 00189 33449 51424] Very strong	(4m36s)	BR	FRI
16114kHz1420z	15/11[03330 00189 33449 51424] Very strong	(4m36s)	BR	FRI
14828kHz1440z	15/11[03330 00189 33449 51424] Very strong	(4m36s)	BR	FRI
17462kHz1400z	16/11[03330 00189 33449 51424] Very strong	(4m36s)	PLdn	SAT
16114kHz1420z	16/11[03330 00189 33449 51424] Very strong	(4m36s)	PLdn	SAT
14828kHz1440z	16/11[03330 00189 33449 51424] Very strong	(4m36s)	PLdn	SAT
17462kHz1400z	22/11[00276 00087 68404 33547] Very strong	(3m18s)	PLdn	FRI
16114kHz1420z	22/11[00276 00087 68404 33547] Very strong. LOCALQRM2	(3m18s)	PLdn	FRI
14828kHz1440z	22/11[00276 00087 68404 33547] Very strong	(3m18s)	PLdn	FRI
17462kHz1400z	23/11[00276 00087 68404 33547] Very strong	(3m18s)	PLdn	SAT
16114kHz1420z	23/11[00276 00087 68404 33547] Very strong	(3m18s)	PLdn	SAT
14828kHz1440z	23/11[00276 00087 68404 33547] Very strong	(3m18s)	PLdn	SAT
17462kHz1400z	29/11[03018 00155 64101 21217] Very strong	(4m10s)	PLdn	FRI
16114kHz1420z	29/11[03018 00155 64101 21217] Very strong	(4m10s)	PLdn	FRI
14828kHz1440z	29/11[03018 00155 64101 21217] Very strong	(4m10s)	PLdn	FRI
17462kHz1400z	30/11[03018 00155 64101 21217] Very strong	(4m10s)	PLdn	SAT
16114kHz1420z	30/11[03018 00155 64101 21217] Very strong	(4m10s)	PLdn	SAT
14828kHz1440z	30/11[03018 00155 64101 21217] Very strong	(4m10s)	PLdn	SAT

December:

15967kHz1400z	06/12[08663 00089 54303 41175] Very strong	(3m19s)	PLdn	FRI
13884kHz1420z	06/12[08663 00089 54303 41175] Very strong	(3m19s)	PLdn	FRI
12217kHz1440z	06/12[08663 00089 54303 41175] Very strong	(3m19s)	PLdn	FRI
15967kHz1400z	07/12[08663 00089 54303 41175] Very strong	(3m19s)	PLdn	SAT
13884kHz1420z	07/12[08663 00089 54303 41175] Very strong	(3m19s)	PLdn	SAT
12217kHz1440z	07/12[08663 00089 54303 41175] Very strong	(3m19s)	PLdn	SAT
15967kHz1400z	13/12[02478 00163 96476 70630] Very strong	(4m16s)	PLdn	FRI
13884kHz1420z	13/12[02478 00163 96476 70630] Very strong	(4m16s)	PLdn	FRI
12217kHz1440z	13/12[02478 00163 96476 70630] Very strong	(4m16s)	PLdn	FRI
15967kHz1400z	14/12 Not Programmed		PLdn	SAT
13884kHz1420z	14/12[02478 00163 96476 70630] Very strong	(4m16s)	PLdn	SAT
12217kHz1440z	14/12[02478 00163 96476 70630] Very strong	(4m16s)	PLdn	SAT
15967kHz1400z	20/12 Not Programmed		PLdn	FRI
13884kHz1420z	20/12[07614 00001 00000 10140] Fair	(2m11s)	PLdn	FRI
12217kHz1440z	20/12[07614 00001 00000 10140] Very strong	(2m11s)	PLdn	FRI
15967kHz1400z	21/12[02073 00001 00000 10140] Strong	(2m11s)	PLdn	SAT
13884kHz1420z	21/12[02073 00001 00000 10140] Fair	(2m11s)	PLdn	SAT
12217kHz1440z	21/12[02073 00001 00000 10140] Very strong	(2m11s)	PLdn	SAT
15967kHz1400z	27/12[00925 00085 49084 61253] Very strong	(3m16s)	PLdn	FRI
13884kHz1420z	27/12[00925 00085 49084 61253] Very strong	(3m16s)	PLdn	FRI
12217kHz1440z	27/12[00925 00085 49084 61253] Very strong	(3m16s)	PLdn	FRI
15967kHz1400z	28/12[00925 00085 49084 61253] Fair	(3m16s)	PLdn	SAT
13884kHz1420z	28/12[00925 00085 49084 61253] Fair	(3m16s)	PLdn	SAT
12217kHz1440z	28/12[00925 00085 49084 61253] Strong	(3m16s)	PLdn	SAT

XPA2 u November

20841kHz0800z	01/11[00965 00219 11557 61674]	(5m00s)	RNGB	FRI
20841kHz0800z	05/11[00804 00143 64715 65376] Good	(4m01s)	RNGB	TUE

18741kHz 0820z	12/11[06725 00151 76248 73266] strong Signal via Web SDR Twente,NL		EL	TUE
17441kHz0840z	19/11[00687 00127 38886 ... 04442]		DanAR	TUE

Rivet (Build 88) by Ian Wraith

15:28:02 XPA2 Start Tones Found (correcting by -37 Hz)
15:28:07 Sync tone found
15:28:07 Symbol timing found

00687 00127 38886 83578 70243 64324 64531 29323 37735 46590 50121 12795 23335 21545 92480
84259 51848 92250 51671 77042 33840 33363 07090 84272 98826 05749 72215 73431 07226 94205
91395 35353442749 16113 01112 56952 19050 69143 84222 80611 26429 34557 56333 37633 30798 65512 200
3657 54375 779937 19696 99466 78330064433 2500576507795550 39 00916552777 31198 41141 2116 13068 00760 421147
6202 27133 64651 2288 1186 1666 07390 83263 6639747778 61864 22112 66331 005744 6586698965 13807
15217770044 88700 39843 2740 00242 89999 7677 89386 44935 20400 93946566731 66 95963 8421 70166643867
00014 09874 3159 00053 00281 74403349848 93418 36590 25099 3367 59997 676 90848 26924 95928
31446 23451 56574 36003 29318 85571 36752 68564 08377 62858 78245 87530 04442
End Tone
15:28:10 XPA2 Decode Complete

Courtesy DanAR

20841kHz0800z	26/11[00567 00233 76051 67775] Good signal		RNGB	TUE

December 2013

20258kHz0800z	10/12[00472 00241 55963 62233] Good	(5m15s)	RNGB	TUE
20258kHz0800z	17/12[06731 00001 00000 10140]		RNGB	TUE
20258kHz0800z	24/12[00184 00193 38311 71765] Fair to good		RNGB	TUE

Crowd 36

16295kHz1033z	11/11[In Progress] 1042z Fair QRN2 QSB2		Spectre	MON

XSL the slot machine:

Digital, Incursions and Unexplained Signals

I am pleased to say that the last couple of months have been productive ones for FSK200/1000 monitoring. The groups data monitors have been busy and we have found four new FSK200/1000 schedules to tell you about. The first was found by westt1us and Peter its link ID is 32799 and it transmits on Tuesdays at 14:00/10/20. The next was also found by Peter its link ID is 49202 , so far it far it has only been heard transmitting on Wednesdays at 10:20 but it is likely that it also transmits at 10:00 and 10:10 on that day. Myself & Nicolas found another schedule transmitting at 13:30/40/50 on Thursdays and Fridays which has the link ID 49237. The last one was again found by Peter transmitting on Wednesdays at 12:30/40/50 with the link ID 53277. This means that at the moment the known currently active FSK200/1000 schedules are ..

Link ID	Day	Time	Comments
20501	Sunday	15:30/40/50	Usually null msgs
32799	Tuesday	14:00/10/20	Usually null msgs
32821	Saturday	15:00/10/20	Usually null msgs
36882	Weekends	11:00/10/20	One msg a weekend
41018	Weekdays	02:00/10/30	Daily messages
45057	Alternate Weekends	10:00/10/20	One msg a month
45114/45115	Weekends	09:00/10/20	One msg a weekend
45136/45137	Weekdays (except Friday)	12:00/10/20	Daily messages
49202	Wednesday	10:00/10/20	
49237	Thursday & Friday	13:30/10/20	
53277	Wednesday	12:30/40/50	

In addition to helping find new schedules group regular Nicolas made an interesting discovery about the four block null messages which are so common in certain schedules. To explain this we shall first look at a message from the 8th Sept 2013 sent at 15:30 ..

Block No 0 : Total Message Size 4 blocks : This transmission contains one message.
Block No 1 : Link ID 20501 : 8th of month : Msg Number 002 : Msg Type 07145 : Group Count (?) 4
03948 **00000 00000** 02285 21447 34813 **00893** 39599
Now a message from 5th November 2013 at 14:00 ..

Block No 0 : Total Message Size 4 blocks : This transmission contains one message.
Block No 1 : Link ID 32799 : 5th of month : Msg Number 002 : Msg Type 07145 : Group Count (?) 4
41460 **00000 00000** 01600 26836 36249 **00893** 03151

and lastly a message from 21st December at 15:00 ..

Block No 0 : Total Message Size 4 blocks : This transmission contains one message.
Block No 1 : Link ID 32821 : 21st of month : Msg Number 002 : Msg Type 07145 : Group Count (?) 4
56988 **00000 00000** 00721 13740 35485 **00893** 36915

So we have three 4 block messages from three different FSK200/1000 schedules. The first couple of 5 digit numbers are 00000 in all messages which is to be expected since these are null messages (FSK200/1000 null messages appear to be similar to XPA2 null messages) but what Nicholas noticed is that in all 4 block messages the seventh number is always 00893. Now at first I wondered if this number was part of the null message however my feeling now is that this number forms part of the error protection and correction which I have always suspected is a part of this mode. Since the other numbers in each message are different my suspicion is that the number 00893 is the error correction/protection for the 00000 00000 numbers in the message. Now the maths behind error correction in messages is rather to complex to explain here but in brief it consists of some extra data added to a message which allows the receiving station to check if a message has been received without errors (say caused by a noisy radio link) and in certain cases even correct the errors without contacting the transmitting station. Now there are a multitude of different types of error correction (and I'm not a mathematician) so I'm unable to reverse engineer the type of error protection used by FSK200/1000 from just this information. But I thought this puzzle might interest some this columns readers who may be able to help me.

Anyway enough about FSK200/1000 and time for news of some other modes. First FSK200/500 as ever this modes two regular schedules continue to send only null messages. I have been lucky enough to come across a couple of what I call "erratics" that is FSK200/500 transmissions that appear to not be part of a schedule as such in the last couple of month both of which were carrying encrypted traffic in the usual format. I listened at the same time on the following week but heard nothing. It is possible these schedules are once a month or perhaps once every two weeks but they remain a mystery for now.

The CROWD36 transmissions continue every weekday on 14656 KHz (USB). Timing doesn't seem to be a big concern of who ever is behind these transmissions as although they usually start at 13:00 they can start 15 minutes earlier or 15 minutes later and sometimes not at all. At least one transmission a week never gets beyond what is probably the synchronization sequence and shuts down after 20 seconds or so. Some transmissions last 10 minutes and switch repeatedly between MFSK (Multi Frequency Shift Keying) and OFDM (Orthogonal Frequency Division Multiplexing). When in the MFSK stage the same tones seem to be sent in repeating patterns. My gut feeling is that I am listening to one side of a two way radio link and the MFSK is now only used to set up the radio link with the OFDM being used to send the actual message.

Group regular Daniel (AR) continues to do good work not only keeping a close eye on the unusual 02:00 FSK200/1000 schedule but also North Korean ARQ data transmissions. These are fairly common and can be found all over the HF spectrum but it is difficult to work out the schedules (if any) behind them. Daniel has found one very reliable one though which appears daily at 08:00 on 16320 KHz. The high speed (600 baud) and short bursts of this mode continue to cause technical problems for Rivet so I'm afraid I have no news to report about decoding them.

That's all from me for now. I hope everyone has a very productive 2014. *Thanks Ian!!*

PoSW's Items of Interest in the Media

Armageddon Update:- I think this story has been in the news before but the Mail on Sunday used it to fill a small space on 3-November. "How NATO war games took world to brink of nuclear holocaust" is the headline and says, "Britain and America nearly provoked the Soviet Union into launching a full-scale nuclear attack against the West at the height of the Cold War, according to newly released classified documents.
They reveal that the world secretly came to the brink of a nuclear holocaust in 1983, in what some anti-nuclear campaigners say was a far more serious incident than the Cuban missile crisis of 1962.
The British Cabinet papers show a NATO war games exercise in November 1983 was so realistic the Soviets mistakenly believed a Western nuclear attack was imminent.
In response the Soviets deployed submarines carrying nuclear missiles under the Arctic ice and more than a dozen aircraft with nuclear weapons.
The secret documents were obtained by anti-nuclear campaign group the Nuclear Information Service. Director Peter Burt said: 'We were one button-push from an irreversible nuclear war. This in my view was far more serious than the Cuban missile crisis.' The NATO exercise, Operation Able Archer, involved 40,000 troops moving across Western Europe.
The Soviet response only became clear to British spies when they were briefed by KGB double agent Oleg Gordievsky in London."

Gissajob at Guantanamo:- It appears that some of those individuals who found themselves as guests of Uncle Sam at his outpost in sunny Cuba were given the chance of gainful employment. "CIA trained Guantanamo inmates to be spies", says the headline over an article by David Usborne, US editor, in the "I" newspaper of 27-November, and says, "The CIA was doing more than just incarcerating and interrogating the hundreds of terror suspects who were rounded up and delivered to the fortified Guantanamo Bay military prison in a remote corner of Cuba in the wake of the 9/11 attacks. In a few cases it was also trying to turn them into double agents, it is claimed.
The programme, run from a secret facility within Guantanamo Bay, which has never been revealed until now, ran from 2002 until 2006 and drew the attention of George W Bush who was then in the White House. A number of terror suspects were successfully turned and sent back to their countries in hopes they would reconnect with the al-Qa'ida network and feed information back to the CIA to help it locate and kill high-profile targets, claims an investigation by the Associated Press.
Only those believed still to have legitimate contacts with the top hierarchies of terror group were considered for the secret programme. Once identified, they were tempted by an assortment of inducements, most notably large sums of cash as well as promises from the CIA that their safety and that of their families would thereafter be assured, including with new false identities.

The cash for the men, which ran to millions of dollars, came from a secret CIA fund called 'Pledge'. They were also offered special privileges, including being moved out of cell blocks and into cottages, named Penny Lane, a few hundred yards away.
They had their own kitchens and showers. And perhaps most tempting of all, they had proper beds."

Splendid news from Afghanistan - for some. If the primary objective of Western intervention in Afghanistan was to secure a strip of land a couple of thousand miles long and a couple of hundred yards wide to build the pipeline from the Caspian Basin oil fields to a port in Pakistan, well that has been an absolute failure. However, there is a widespread view that the second goal was to make sure there is no interruption to the flow of heroin to western countries. The importance of a continued flow of this stuff into the West cannot be underestimated. It helps to keep large numbers of our ever increasing underclass passive, people who might be rioting in the streets and causing all sorts of mayhem if they were not kept mellow by regular self medication with "H". Politicians of all the main political parties regularly mouth platitudes about the "war on drugs". Truth is, there has never been any such thing. So no doubt many in high places were pleased to read the headline in the Metro paper of 14-November. "50% rise in Afghan opium for the drug trade" is the headline, and says:- "Opium production has surged to record levels in Afghanistan this year despite global efforts to wean the country off the heroin trade, according to the UN. This May's poppy harvest produced 5,500 tonnes of opium, nearly 50 per cent higher than last year and more than the combined output of the rest of the world …...Production in Kabul province rose by nearly 150 per cent and even provinces with past successes in combating poppy cultivation saw increases. The agency's Kabul representative
Jean-Luc Lemahieu said the beneficiaries of the trade 'include farmers, insurgents and many within the government - often working together'.
Uncertainty over the future of international aid for the country is also fuelling the growth in cultivation, he added."

From the same issue of the Metro comes an update on the continuing story of Gareth Williams, a former MI6 employee found in a deceased state in unusual circumstances over three years ago. His body was found inside a locked bag and at one point it was being suggested that he had managed to do this all on his own without the involvement of some other individual. Perhaps he was planning a career in variety as a Harry Houdini tribute act and was working on his routine. The latest news on this incident was revealed in the Metro with the headline "Spy found in a bag 'probably an accident' " and says, "An MI6 worker whose naked body was found in a padlocked sports bag probably died by accident, police said yesterday.
Gareth Williams was found in the holdall in the empty tub of his bathroom but 'many questions remain unanswered' about his death, the Met stated after its review of evidence.
Deputy Assistant Commissioner Martin Hewitt said: I do not believe I have had the wool pulled over my eyes. I believe what we are dealing with is a tragic, unexplained death.'
He also said there was no evidence the code-breaker's home had been 'deep cleaned' to remove forensic traces.
The findings contradict those of last year's inquest into Mr William's death, when the coroner said the 31 – year old had been unlawfully killed.
The spy's family said yesterday they were 'naturally disappointed' with the findings.
Mr Hewitt said the death was 'most probably' an accident. 'It is a more probable conclusion there was no other person present when Gareth died,' he said. However, he added: 'No evidence has been identified to establish the full circumstances of the death beyond all reasonable doubt.'
The spy's DNA was not found on the 32in x 19in holdall. No palm prints were on the rim of the bath.
Mr Williams, from Anglesey, was on secondment to MI6 from GCHQ when he died in August 2010. His body was found at his flat in Pimlico, central London.

Thanks PoSW!

Gizza Job!

Look at advert then read pieces below:
[Thanks Spectre]

GCHQ, MI5 And MI6 Advertisment Published In The Metro Newspaper 14/11/2013.

APPRENTICES WITH INTELLIGENCE.

TECHNICAL APPRENTICESHIP IN IT, SOFTWARE, INTERNET AND TELECOMMUNICATIONS.
Many organistations offer you the chance to work with 'cutting-edge technology'. Many offer 'exciting and facinating careers'. But this is a whole different level. It's a chance to gain a unique insight into a world that you won't find on any university course. Cyber threats. Terrorism. Espionage. Organised crime. The kind of work that's constantly evolving, always challenging, and will give you plenty of scope to explore new opportunities and develop you skills. Successful apprentices could be rewarded with a permanent role at either GCHQ, MI5 or MI6.

All three agencies are offering Technical Apprenticeships in IT, Software, Internet and Telecommunications. We need individuals who are motivated, technically-oriented and ready to embark on a two-year scheme starting in September/October 2014 in the Cheltenham area. You'll enjoy hands-on work to help us build and maintain some of the world's most sophisticated technology. The programme will lead to exciting roles within the intelligence agencies. Your work will help us to ensure that the UK government can combat terrorism, operate in cyber space with confidence and stay ahead of the swift pace demanded by the evolving digital world.

What do you need to apply?

You'll need (or be expecting) 3 A-levels at Grades A to C or equivalent qualifications. Two of these will need to be in Science, Technology, Engineering or Maths (STEM) subjects.

Because of the sensitive nature of our work, we must be satisfied with the honesty and integrity of our people. Therefore, part of the process will assess your suitability to obtain

Developed Vetting Security Clearance. All candidates must be British Citizens and 18 years old when the Higher Apprenticeship programme starts in September/October 2014.

The Programme.

Our two-year Technical Apprenticeship programme combines university-delivered classroom and lab education in state-of-the-art facilities. You'll experience technical training, mentoring and job shadowing, research and development, together with work-based placements and projects. There will be real business challenges to tackle in subject areas such as:

Information Assurance, Software Engineering, Analogue and Digital Signal Processing, Telecommunications, GSM Fundamentals, Mobile Telephony Protocol as well as

Fundamentals of Data Communications and Protocols.

The majority of work will take place in Cheltenham, with frequent visits to the university. There will also be placements at GCHQ and limited placements at MI5 or MI6, with further opportunities at other government departments including GCHQ's commercial parteners. You'll receive full training and support throughout the programme from our academic provider, the sponsoring university and agency colleagues.

How will it work?

This Apprenticeship is all about collaborative working and the sharing of ideas. A variety of work-based placements will involve you in real world tasks of a research, development or project nature. Some of the placements will also give you the opportunity to contribute to the mission of your team, as well as take responsibility for your own work. At every stage, you'll put the skills that you've learned into practice, while still developing your technical knowledge.

The Apprenticeship will lead to a Foundation Degree in Communications, Security and Engineering and a Level 4 Diploma in IT, Software, Web and Telecommunications

Competence.

As well as formal technical training, it's also important to develop your teamwork, communication and leadership skills. Learning opportunities throughout the programme include an outward-bound course in the first few months. Successful completion of the Apprenticeship could lead to a career in a number of different areas, such as Software Engineering, Information Assurance or Cyber Operations.

The benefits.

Salary is currently £17,066 during the apprenticeship rising to £19,543 after you qualify (approx. £21,000 if you secure a permanent role in London).

You'll have 22 days' holiday a year, rising to 25 days after a year in service.

If you move to London during your apprenticeship, we'll pay for your accommodation until the end of the course.

If you successfully achieve your foundation degree and Level 4 Diploma, you may be offered a permanent role in one of the agencies. Also it may be possible to continue with your studies and attain a full BSc honours degree.

How to apply.

To find out more and how to apply, please visit:

www.careersinbritishintellgence.co.uk

The Spectre says:

Three A-Levels seems a bit too high, just to spy on E-mails, hack Mobile-Phones and Monitor Shortwave Radio for Number Stations (Analogue and Digital Signal Processing as they put it).
You need not apply, if you have a few grey hairs, drive a white van that won't start or claim job seekers allowance.

[Thanks Spectre] now read on [Thanks KW]:

Teenagers hired as trainee spies in apprenticeships drive
The Skills Minister says more students will take 'ambitious' apprenticeship courses instead of going to university, including one for would-be spies run by GCHQ and another in space engineering
By Graeme Paton, Education Editor
7:00AM GMT 24 Nov 2013
http://www.telegraph.co.uk/education/educationnews/10466050/Teenagers-hired-as-trainee-spies-in-apprenticeships-drive.html

School leavers will be recruited as "trainee spies" under radical plans drawn up by Britain's security services to create a new generation of espionage experts.

In the first move of its kind, MI5, MI6 and GCHQ will hire dozens of apprentices aged as young as 18 to help tackle future threats to national security.

The two-year programme – starting in September 2014 – will give trainees an understanding of issues such as cyber threats, terrorism, espionage and organised crime.

Candidates – who must be British citizens and will be subjected to rigorous screening checks – will be trained in subjects including software engineering, telecommunications and mobile phone systems.

Matthew Hancock, the Skills Minister, insisted the move was part of a wider drive to provide an alternative route into careers traditionally only open to graduates.

He revealed that a new apprenticeship in "space engineering" was also being launched in January that aims to train students in subjects such as satellite technology.

Other higher level apprenticeships include those in law, accountancy, IT and financial services, he said.

In an interview with The Telegraph, Mr Hancock insisted that all school leavers should now consider taking a university degree or an "ambitious" apprenticeship after completing their compulsory education.

The comments come just days after the president of the Girls' Schools Association warned that middle-class pupils from private schools could no longer afford to be "sniffy" about apprenticeships as a genuine alternative to higher education.

"These higher-level courses are symbolic of a wider movement: the rebirth of apprenticeships as a route not only to a better entry-level job, but into the boardroom," he said.

He suggested that the new wave of apprenticeships would appeal to some school leavers who had traditionally been pushed onto taking a degree course.

"Historically the academic route has always been clearly signposted and we're trying to do that across the board, including for those who don't want to go to university," he said.

"The forgotten 50 per cent – forgotten under the Labour years because they didn't fit the target of going to university – need a clearer route.

"The idea is that when young people leave school it becomes the norm to either do an apprenticeship or to go to university."

The security services apprenticeship was announced by William Hague, the Foreign Secretary, last year, but full details have only just emerged.

It was revealed that 80 recruits aged 18 and over would be taken on as part of the programme, which will eventually lead to a foundation degree in communications, security and engineering as well as a diploma in IT.

Applicants must have – or predicted to have – the equivalent of three A-levels at grade C or above, including two in science, technology, engineering or maths subjects.

Apprentices will be trained principally at GCHQ's Cheltenham HQ with the possibility of transferring to MI5 and MI6 in London in the second year of the course. The closing date for applications is Monday, December 9.

Mr Hancock said: "You can't learn what you're going to get on that apprenticeship on any university course because it involves being inside the security services, finding out about the systems needed to protect the country from harm."

Loughborough College will run the first apprenticeship in space engineering, with backing from Leicester University.

Thirty students will be recruited in the first year from January 2014. It will also lead to a foundation degree qualification.

It comes after the UK Space Agency warned of a lack of graduates entering the industry lacking specific practical skills.

http://www.telegraph.co.uk/education/educationnews/10466050/Teenagers-hired-as-trainee-spies-in-apprenticeships-drive.html

[Thanks KW]

Other news items

French spies plotted to assassinate Abu Hamza on streets of London
Schemes of French intelligence services reported in Gateway to Terror investigation by HOPE Not Hate
Adam Withnall
http://www.independent.co.uk/news/uk/crime/french-spies-plotted-to-assassinate-abu-hamza-on-streets-of-london-8961725.html

According to a major investigation by the organisation HOPE Not Hate, French intelligence services dubbed the UK capital "Londonistan" because of a growing reputation for harbouring Europe's Muslim fundamentalists.

Seeking to take advantage of the fear surrounding the London nail bombings by the neo-Nazi militant Davud Copeland, security officials from Britain's European neighbour hatched a plot to kill the cleric and blame it on the far-right extremist group Combat 18.

Spies got as far as identifying the weapons they would use to mimic those favoured by the organisation, and would have sent Hamza faked death threats pretending to be from the group. It is not clear why the plans were not carried out.

In a completely separate earlier plot, the French spying network Direction Générale de la Sécurité Extérieure (DGSE) contemplated kidnapping Hamza from his West London home, putting him in a ferry and moving him to France.

Those plans came amid fears that Algerian terrorists were going to target the 1998 football World Cup in France.

Reports of the two plots come from the extensive investigation entitled "Gateway to Terror" and published today by the HOPE Not Hate group. It looks into the influence of the now-banned al-Muhajiroun group and its links to Hamza and the British Islamic preacher Anjem Choudary.

Lead author Nick Lowles wrote: "One plot hatched by French intelligence that has, until now, not previously come to light, was the idea of assassinating Abu Hamza in London.

"The plan was to impersonate the British Nazi group Combat 18 and then allow them to take the blame.

"In the immediate aftermath of the London nailbombings, the French considered sending death threats in the style of C18 and then killing him with the same type of weaponry that the group was thought to possess.

"However, as with the kidnap plan, the assassination attempt was aborted and it is unclear how advanced the planning of either idea progressed."

Hamza preached at the Finsbury Park mosque in north London for years until he was jailed in 2006 for inciting murder and racial hatred. He was finally extradited to America last year to face terrorism charges.
http://www.independent.co.uk/news/uk/crime/french-spies-plotted-to-assassinate-abu-hamza-on-streets-of-london-8961725.html
Thanks 'E'

Lockheed Martin Is Developing A Hypersonic Spy Plane
No need to be stealth if you're flying at Mach 6.
By
Kelsey D. Atherton
Posted 11.04.2013 at 11:00 am
http://www.popsci.com/article/technology/lockheed-martin-developing-hypersonic-spy-plane

The SR-71 Blackbird, iconic supersonic Cold War spy plane adopted by the X-Men as their vehicle of choice, might finally have a replacement. The Blackbird was retired in 1999, and since then there's been a serious deficit in crazy-fast spy planes that inspire unimaginable wonder in children named Kelsey. Lockheed Skunk Works revealed Friday that it is developing the SR-72, designed to fly at twice the maximum speed of the Mach 3 SR-71. That's Mach 6, or six times the speed of sound. The biggest difference between the SR-71 and the SR-72 is that the new plane will fly without a pilot on board.

Jet engines top out at around Mach 3. In 1990, the SR-71 set a speed record, flying at Mach 3.3 from Los Angeles to Washington, D.C., in barely more than an hour. To go faster than that, the SR-72 will use a scramjet, which takes super-compressed air, combines it with fuel, ignites it, and jets it out the back, sending the craft forward at supersonic or near-supersonic speeds. Scramjets go really, really fast, but because they need super-compressed air to work, they have problems at lower speeds.

To solve this low-speed problem, Lockheed proposes a dual engine that shares a common air intake. A regular jet engine provides thrust from takeoff to Mach 3, and a scramjet takes over after that, propelling the plane from supersonic to hypersonic.

When the SR-71 retired, its high-altitude surveillance role was largely taken over by satellites. Yet satellites are not a perfect solution. Objects on the ground, like mobile missile launch stations, can move in between satellite orbits, but a hypersonic plane could spot them in time and then outrun any anti-air missiles they may fire.

Aviation Week has the full story. This nugget, describing the possibility of weapons on the SR-72, is particularly illuminating:

The SR-72 is being designed with strike capability in mind. "We would envision a role with over-flight ISR, as well as missiles," Leland says. Being launched from a Mach 6 platform, the weapons would not require a booster, significantly reducing weight. The higher speed of the SR-72 would also give it the ability to detect and strike more agile targets. "Even with the -SR-71, at Mach 3, there was still time to notify that the plane was coming, but at Mach 6, there is no reaction time to hide a mobile target. It is unavoidable ISR," he adds. Lockheed envisages that once the FRV has completed its baseline demonstrator role, it could become a testbed for developing high-speed ISR technologies and supporting tests of the SR-72's weapons set, avionics and downlink systems.

Popular Science asked U.S. Air Force Lieutenant General Robert P. Otto, who has flown spy planes and worked in reconnaissance and surveillance for years, about the SR-72. He said he hadn't heard of the plane, but a high-altitude Mach 6 spy plane? That's a "tantalizing idea."

Indeed it is. Right now, Lockheed Martin is looking at a 2018 demonstration.

[Aviation Week]

BONUS: In 1988, Popular Science investigated another proposed successor to the SR-71 Blackbird, called the Aurora. Read about the mysterious hypersonic plane in our

November 1988 cover story, "Revealed! Mach 5 Spy Plane."

http://www.popsci.com/article/technology/lockheed-martin-developing-hypersonic-spy-plane

Iranian arrested in Israel on suspicion of espionage
Man was seen photographing US embassy, says he was to be paid $1 million to spy; Jerusalem says arrest proof Iran engaged in 'doublespeak'
By Gavriel Fiske September 29, 2013, 10:57 am

http://www.timesofisrael.com/iranian-arrested-on-suspicion-of-spying-on-israel/

THIS ARTICLE IS WORTH OPENING ON THE NET, expanding the image taken from a high rise as seeing what Ali Mansouri included in his photograph

Israeli security officials recently detained an Iranian with Belgian citizenship who officials believe is an agent of Iran's Revolutionary Guards and whose main mission was to spy on American interests inside Israel.

The agent, Ali Mansouri, was arrested at Ben-Gurion International Airport on September 11 by the Shin Bet security service while attempting to depart Israel for Belgium, the security agency said Sunday.

He was traveling under the alias Alex Mans and had been observed photographing the US Embassy in Tel Aviv and recording activity there. He was found with photographs of the US embassy and other sites.
A gag order on the arrest was lifted Sunday morning, as Israeli Prime Minister Benjamin Netanyahu was making his way to New York to deliver a speech at the UN widely expected to attempt to refocus world attention on Iran's nuclear program.

A member of the prime minister's delegation to New York said Sunday that the arrest was proof that Iranian attempts at detente with the West had not changed its actions on the ground.
"At a time when Iran is trying to get closer to the US, it sent an agent to try to gather intelligence in order to carry out a terror attack against the American Embassy in Israel," the official said. "This is just one further example of Iran's policy of doublespeak and further proof that Iran's words do not match its actions."

Ali Mansouri, arrested by the Shin Bet on September 11. (photo credit: Courtesy Shin Bet)

Mansouri said during questioning that he was promised $1 million in exchange for his activities inside Israel, and described how he was recruited by the special operations unit of the Revolutionary Guards.
Mansouri said he was deprived of sleep and bound to a chair during Shin Bet investigation, Channel 2 News reported Sunday night. He said he was not hit or hurt during questioning, the report added.
Mansouri's attorney was quoted by Channel 2 saying that his client's situation was more complex, but that "he has no agenda against Israel."
Mansouri has visited Israel several times and was under surveillance by Israeli intelligence. According to the Shin Bet, Mansouri, a businessman, was also looking to establish business interests in Israel that could serve as fronts for Iranian intelligence activities in the Jewish state.
The aim was to establish a front behind which the Revolutionary Guards could operate in Israel, against Israel, Channel 10 news reported Sunday night. A subsequent stage would have been to send terrorists to Israel to carry out attacks, it added.

Ali Mansouri's picture of the US Embassy in Tel Aviv, taken from a nearby highrise. (photo credit: Courtesy Shin Bet) **This pic!!!!!**

Mansouri left Iran in 1980, lived in Turkey until 1997 and then moved to Belgium on a business visa, where in 2006 he obtained citizenship and changed his name to Alex Mans, the Shin Bet revealed. In 2007, Mansouri returned to Iran and established an international business with interests in Iran, Belgium and Turkey.

One of the companies Mansouri established was called European Folded Glass System, Channel 2 reported.
The company's amateurish website, which states proudly that EFGS is "Big Company in Europe," is rife with spelling and grammatical errors. Alex Mans is listed as the manager, and a Belgian address and phone number are given on the site.

http://www.timesofisrael.com/iranian-arrested-on-suspicion-of-spying-on-israel/

The first image in this fine piece shows what Ali Mansouri photographed in Israel, but there's one in Berlin too [and across most of the world]. Don't include the British Embassy for the 'rest of the world!' :

OBITUARIES

[This is one an interesting account of an Intercept Officer who refused to write 'Classified Books Checked Correct' against his signature.
Read this and you'll work out why].
Jock Kane
6:51PM BST 20 Oct 2013
http://www.telegraph.co.uk/news/obituaries/military-obituaries/special-forces-obituaries/10392405/Jock-Kane.html

Jock Kane, who has died aged 92, was a wartime RAF special operations radio operator, then worked for the government signal intelligence centre GCHQ, where, after three decades' service, he became a whistleblower in a scandal that was alleged to have involved sex and security breaches.

Kane was prevented from publishing two books alleging laxness and corruption at GCHQ. Special Branch officers seized the manuscript of his memoir GCHQ: The Negative Asset in March 1984, and an injunction was issued three years later to stop his second, The Hidden Depths of Treachery.

But he was never prosecuted, and the outcome of a secret trial of two journalists, and the chance discovery of a KGB spy whom GCHQ had for years unknowingly harboured in its midst, gave the ring of truth to his assertions.

Kane wrote the books out of frustration after waging a long campaign to end what he said were fraudulent activities widespread in GCHQ, which he claimed could expose staff to blackmail by hostile agencies. In particular, he detailed laxness at GCHQ's Little Sai Wan establishment, Hong Kong, where he had worked until 1976. His complaints, first aired in 1973, centred on lost secret documents and a lack of supervision of Chinese cleaners who, he said, were passing on material that had been collected from waste paper baskets.

His concerns became public knowledge after the defence at the 1978 "ABC" trial at the Old Bailey used, in court, information received from Kane. The judge, Mr Justice Mars-Jones, said he considered the charges of revealing government secrets "oppressive", and the journalists Crispin Aubrey and Duncan Campbell received conditional discharges.

Little Sai Wan as an RAF base. It was transferred to GCHQ in 1964

As a result, television investigators and other journalists fastened on Kane's allegations and carried inquiries further. A Granada Television World in Action documentary claimed to have discovered a brothel, disguised as a massage service, in a hotel where GCHQ reserved 30 rooms for the use of visiting staff, and which corruptly won its business from the organisation.

Two years later it emerged that, while Kane had been taking his allegations about GCHQ up the chain of command and to MPs and ministers, the man who would be regarded as the KGB's most important British agent of the 1970s, Geoffrey Prime, had been giving away secrets for more than a decade while employed at the eavesdropping service's Cheltenham's headquarters. Prime resigned from GCHQ in 1977, and his spying was revealed only in 1982 after he was arrested in connection with sexual offences against young girls. For the sexual offences Prime was sentenced to three years' imprisonment; for betraying secrets he received 35 years. He was released from prison in 2009.

John Kane was born at Coatbridge, Lanarkshire, on April 7 1921 and was left an only child when his mother died in childbirth when he was two. His father brought him up with the help of aunts and other relations, and he was educated at St Patrick's High School, Coatbridge. On joining the RAF in 1939 he trained as a radio operator at Blackpool, and later flew on sorties from Cornwall over the Atlantic with the task of calibrating radar signals.

He served in North Africa and Italy, and in 1944 was sent into occupied Yugoslavia and then into heavy fighting in Greece. At Athens airport the situation appeared so desperate that he was given provisional orders to destroy his radio and encryption equipment. Help arrived just in time and the equipment survived.

While in Greece he met his future wife, Alexandra, a member of the Greek resistance who had spent a year in prison from 1941 for helping to evacuate British and Australian soldiers stranded there after the Nazi invasion . The couple exchanged letters, and married in London in 1949.

Kane was recruited by GCHQ on leaving the RAF at the end of the war, and was posted to Hawklaw near Cupar in Fife. He later served in Istanbul, Aden, Singapore, Hong Kong and Belfast.

His marriage to Alexandra, with whom he had two sons, was dissolved, and she died in 1999. With his second wife, Cynthia, whom he married in 1983, he moved to Barton on Sea, Hampshire, where he worked as a milkman and school bus driver. She survives him with the sons of his first marriage.

Jock Kane, born April 7 1921, died September 27 2013
http://www.telegraph.co.uk/news/obituaries/military-obituaries/special-forces-obituaries/10392405/Jock-Kane.html

Mavis Batey
Garden historian who was one of the top codebreakers at Bletchley Park during the second world war
Michael Smith
theguardian.com, Wednesday 20 November 2013 16.31 GMT
http://www.theguardian.com/world/2013/nov/20/mavis-batey

Mavis Batey, who has died aged 92, was often described as one of the top female codebreakers at Bletchley Park but, while she was always too modest to make the point herself, this diminished her role. She was one of the leading codebreakers of either sex, breaking the Enigma ciphers that led to the Royal Navy's victory over Italy at Matapan in 1941 and, crucially, to the success of the D-day landings in 1944.

She was 19 years old when she was sent to Bletchley, the codebreaking centre in Buckinghamshire, in early 1940 and put to work in No 3 Cottage, in the research section, which broke into new cipher systems that had never been broken before. It was run by the veteran codebreaker and Greek scholar Dilly Knox, who had not only broken the Zimmermann Telegram, which brought the US into the first world war, but had also pieced together the mimes of the Greek playwright Herodas from papyri fragments found in an Egyptian cave.

In March 1941, Mavis broke a series of messages enciphered on the Italian navy's Enigma machine that revealed the full details of plans to ambush a Royal Navy supply convoy ferrying supplies from Egypt to Greece. The plans gave Admiral Andrew Cunningham, commander-in-chief of the Royal Navy's Mediterranean Fleet, the opportunity to turn the tables on the Italians, who were taken completely by surprise. Cunningham's ships sank three heavy cruisers and two estroyers with the loss of 3,000 Italian sailors. The Italian fleet never confronted the Royal Navy again.

Cunningham visited the cottage to thank Knox and his team of young female codebreakers. "The cottage wall had just been whitewashed," Mavis recalled. "Someone enticed the admiral to lean against it so he got whitewash on his lovely dark blue uniform. We tried not to giggle when he left."

In a poem composed to celebrate the victory, Knox dedicated one stanza to Mavis: "When Cunningham won at Matapan, By the grace of God and Mavis, Nigro simillima cygno est, praise Heaven, A very rara avis." ("Like the black swan, she is, praise heaven, a very rare bird".) It was, she later said, "very heady stuff for a 19-year-old".

Arguably, her most important break was into the German secret service Abwehr Enigma. The British had captured most of the enemy spies sent to Britain and were using them to feed false information to the Germans in an operation known as the Double Cross System. But they had no way of knowing whether the Germans believed the false information, because the Abwehr Enigma was deemed impossible to break. Knox and his team believed otherwise and in December 1941, Mavis broke a message on the link between Belgrade and Berlin that allowed them to work out the wiring of the machine.

From that point onwards, MI5 knew the Germans believed everything the double agents told them, allowing them to provide a stream of pieces of intelligence suggesting that the allies had an entire army ready to storm the Pas de Calais.

As the allies landed in Normandy on 6 June 1944, one of the double agents insisted that the main thrust would come against Calais. His report went straight to Adolf Hitler, who ordered two key armoured divisions back to the area. Without the breaking of the Abwehr Enigma, the D-day deception could never have gone ahead and those divisions might well have helped the Germans throw the allied forces back into the sea.

She was born Mavis Lever, in Dulwich, south London, the daughter of a postal worker and a seamstress. She attended Coloma convent girls' school in Croydon, and was reading German at University College London when war broke out.

While the image of eccentric wartime codebreakers is often exaggerated, it is entirely appropriate in the case of Knox, whose unusual views on training in effect left new recruits to sink or swim. In a chapter on her work in the book The Bletchley Park Codebreakers (2011), Mavis described her own arrival in the cottage where Knox and his team worked, and his first words to her.

"They were: 'Hello, we're breaking machines. Have you got a pencil? Here, have a go.' I was then handed a pile of utter gibberish, made worse by Dilly's scrawls all over it. 'But I'm afraid it's all Greek to me,' I said, at which he burst into delighted laughter and replied, 'I wish it were.'"

Mavis met her husband, Keith Batey, a mathematician and himself one of the leading break-in experts at Bletchley, when he assisted her on one night shift to tackle a particularly difficult codebreaking problem. They married in 1942. After the war, she stopped work to bring up a young family.

In the 1960s, when her husband was appointed secretary of the chest, the chief financial officer of Oxford University, they lived on the university's Nuneham Park estate where the gardens, landscaped in the 18th century, had become overgrown.

Researching the estate, a process that made good use of research skills and a determination to find the truth developed at Bletchley, led Mavis to an interest in historical gardens. She became an immensely inspirational force behind moves by the Garden History Society, the Campaign to Protect Rural England and English Heritage to protect them.

She worked with the Historic Buildings Council to compile what became the English Heritage Register of Parks and Gardens of Special Historic Interest in England and was honorary secretary of the Garden History Society from 1971 until 1985, then its honorary president.
Mavis wrote numerous books on historical gardens, including Jane Austen and the English Landscape (1996) and Alexander Pope: Poetry and Landscape (1999), and a wonderfully affectionate biography of Knox, Dilly: The Man Who Broke Enigmas (2010).

She was awarded the Veitch memorial medal of the Royal Horticultural Society in 1985 and two years later was appointed MBE for services to the preservation and conservation of historic gardens.

Keith died in 2010. Mavis is survived by her three children, Elizabeth, Christopher and Deborah.
Mavis Lilian Batey, codebreaker, garden historian and author, born 5 May 1921; died 12 November 2013

http://www.theguardian.com/world/2013/nov/20/mavis-batey

Spy base now a 'Cold War relic' in sandhills
KELSEY FLETCHER
Last updated 12:00 22/11/2013
http://www.stuff.co.nz/manawatu-standard/news/9430277/Spy-base-now-a-Cold-War-relic-in-sandhills

An old relic of the Cold War is what the Tangimoana spy base has become.

But one of the only people who will tell you that is investigative journalist and author Nicky Hager, who spoke in the Manawatu village last night about mass surveillance and the base's role.

"I've spent a huge amount of my life studying that base," he said.

The Tangimoana spy base, opened privately in 1977 by Sir Robert Muldoon, is a sister base to the Waihopai satellite communications interception station near Blenheim.

Mr Hager said upon seeing the base just outside the town "it's like you're at an old piece of the Cold War dotted in the middle of the country, and that's exactly what it is".

"What they initially said was this base was to be built to help defend New Zealand, which was totally untrue," he said. "What that base actually did, it's hard to think of anything that was less like a piece of New Zealand."

Mr Hager said about 120 staff were at the forefront of intercepting radiowave communication, including from the United Nations diplomatic agency, for New Zealand's allies from around the world - it had more staff than the GCSB headquarters at the time.

"It was an agency which was 95 per cent devoted to doing things for other countries and nothing to do with New Zealand," he said. "It's a piece of the Cold War, it's a piece of the American alliance dropped down in the sandhills of the Manawatu.

"Although you were told Tangimoana was there to defend New Zealand, the actual operations had nothing to do with New Zealand, it was essentially a political contribution to the old allies."

Mr Hager said the spy base was mostly redundant now as radiowave communication had been surpassed by satellite and mass telecommunications spying.

"Now they're just managing 24-hour shifts but the GCSB needed somewhere to store its millions and billions of interceptions reports from the past, all the intelligence they had been collecting for years and years," he said.

"There has been a new building built out the back full to the brim with old intelligence, so they're dumping out the back because they don't have as many operations any more."

Mr Hager told concerned people not to worry about being spied on as an individual because mass surveillance was "mostly country versus country". "People have all sorts of secrets in their lives . . . their loves and their hopes aren't crimes.

"But unfortunately the government agencies and media often trample all over these secrets and people have legitimate right to privacy."

http://www.stuff.co.nz/manawatu-standard/news/9430277/Spy-base-now-a-Cold-War-relic-in-sandhills

Ahhhh! But what about the Irirangi facility on State Highway One between Taupo and Waiouru - navy sign removed and nice shiny antennas still prevail!

Our first edition of the Newsletter contained a piece on the loss of the Hull based trawler Gaul H243; because of recent events we see fit to reproduce it here again:

MV Gaul H243. An Intelligence Gatherer?

On 13thMarch, 1998 the Ministry of Defence issued a press notice 068/98 entitled "British Trawlers Help in Intelligence Gathering: Information made Public." The document described how the Armed Forces Minister, Dr John Reid, made public a paper describing the contribution of British Trawlers to Intelligence during the Cold War period, explaining the advantage of using fishing vessels as low-level intelligence gatherers in the North Cape and Barents sea.
Dr Reid stated that intelligence gathering involved little more than reporting the position of any vessel of interest and a photograph taken if possible. He further stated that this action represented a long tradition of support by the fishing fleet to the Royal Navy; by following their business of fishing and volunteering such information they though right to report. Dr Reid also mentioned that junior Royal Navy officers were allowed to gain valuable sea going experience by embarking on Merchant vessels and deep-sea trawlers. This scheme, he said, provided an added dimension in the low-level intelligence gathering activity.
Twenty seven years earlier, prior to the issuing of document 068/98, a Stern trawler, the Ranger Castor SN18 [later renamed MV Gaul] was completed and launched on 6th December 1971. The vessel was of 'all welded steel construction', had an overall length of 66 metres, a breadth of 12 metres, weighed 1,106 tons and a capacity to hold 478 tonne of mixed load. The vessel, it was stated, had one of the best constructions, including a reinforced bow, made to specifications above those required by Lloyds, capable of resisting the harsh Arctic conditions of the Barents Sea.

It was, by definition, a super-trawler, and one of the best ever manufactured of that type.

On 27thJanuary, 1974 MV Gaul left Hull for the fishing grounds in the North Cape area.

Aboard the trawler Stallo an eyewitness to this last voyage claimed that the Gaul was steaming at speed into the middle of an Arctic storm and remembered the colours of the ship as it sped past his position into one of the most ferocious storms he had ever seen. He noted that the Gaul was not fishing, had no nets out and that all hatches were closed. He also noted that the Gaul had no damage and no obvious steering or engine problems.
It has been suggested that the Gaul was lost sometime between 1109 and 1630 hours on 8th February, 1974. The receiving of routine radio traffic from the Gaul just before 1109 and the absence of a scheduled report at 1630 used as the yardstick. No distress message was ever received and all 36 crew aboard perished. A series of emergency calls to all vessels in the area were made during the two days after the Gaul failed to report and any sightings were requested to be reported.

The first reports that the trawler was missing were made on 11thFebruary, 1974. A search of the area started three and a half days after the loss. A full-scale search was made, involving the Royal Navy, Norwegian Emergency Rescue Centre and the Norwegian Navy and Coastguard service. The Royal Air Force and that of Norway were also involved, as were 23 trawlers in the area.

Ships involved in a nearby NATO exercise, code-named 'Clockwork', made their way to assist. The entire search operation at sea was co-ordinated by HMS Hermes, an aircraft carrier. The search operation at sea was eventually called off at 1600 hours on 15thFebruary, 1974 although RAF Nimrods continued a little longer. The weather during the search was bad and visibility poor. Nothing was found to indicate the position of the Gaul or give witness to its fate.

Rumours abounded in Hull that the Gaul was involved in spying. The subsequent discovery of a small life buoy marked 'Gaul Hull' on 8thMay, 1974 by a Norwegian fisherman did nothing to allay those fears. The life buoy was returned to Hull for close examination and was found to have samples of a marine growth found only in fresh water areas. The opinion of the investigators being that the life buoy had not been in seawater for some three months.

The fisherman who found the life buoy was the subject of a book written later. In the book he is mentioned as stating that it was not only the British trawlers who were used in 'spying' activities. He indicated that Norway, and other Western Intelligence agencies, involved their fishing vessels for that purpose whilst fishing. Despite the location of the Gaul being unknown a Formal Investigation ended in October 1974 by concluding that the Gaul had capsized and foundered in heavy seas.

In November 1975 the Norwegian vessel 'Rairo' reported the position of MV Gaul to HM Government.

Twenty two years later, on 6th November 1997, a British television company, Channel 4, screened "The Mystery of the Gaul," and included footage from an expedition to locate the wreck of the Gaul made in August 1997.

Revelations made in the Channel 4 programme suggested that a Commander John Brookes "ran an elaborate spy network" from the White Sea Fish Authority, based in Hull. The earlier rumours that had persisted were further boosted by this disclosure and Hull Members of Parliament called for a public enquiry to raise answers about the vessel found approximately 70 nautical miles north of Norway, from Hammerfest, and 280 metres down on the seabed.

The Gaul, apparently too difficult to find, according to HM Government, had been located by a Channel 4 television crew using commercial Sonar equipment and an underwater camera.
On the seabed next to the Gaul was a cable that could be clearly seen. At its discovery it was believed to be part of a submarine location network, SOSUS, used during the Cold War.
The television crew followed the cable in a loop to nearby Soray Island. Damage to the strengthened bow of the Gaul was also discovered during the survey.

On 22nd November 1997 a Rear-Admiral Michael Kyrle Pope revealed to the Hull Daily Mail newspaper details of a spying network using Hull trawler men at the height of the Cold War. He explained that it was 'common and acceptable' to use trawler crews to gather information on Soviet submarines off the Russian coast and around the Norwegian Cape. He further revealed that radio and photographic equipment, would have been passed on by the Secret Service, MI6.

He also mentioned that Commander Brookes would have been given the task of approaching skippers and crew if he knew that they were going fish in any areas of interest. He acknowledged that Hull played an important part in these operations, the trawler men serving their country well.
An official survey of the Gaul was held up due to inclement weather but in early August 1998 the survey ship Mansal 18 slipped its moorings with relatives of the lost crewmen and a BBC television film crew aboard.

During the short delay in sailing the Deputy Prime Minister, John Prescott, warned relatives about talking to the media enforcing that such statements could hamper any future enquiry.
As the survey ship made its way to the site of the Gaul a former skipper revealed the use of Hull trawlers for intelligence gathering. He said that he was requested to take his trawler, the MV Invincible H96, to an area of the Barents Sea known as the Duck's Back, about 50 miles from the Soviet Northern Fleet base in Murmansk. That mission took place in 1972. The skipper said that special satellite equipment was fitted to the Invincible and that a naval officer, a commander, joined the ship to operate it. He was told that the purpose of the mission was to locate a lost Soviet underwater camera, but later discovered that he had been misled, the real purpose being the discovery of the location of a Soviet test missile.
The First Mate aboard the Invincible for this mission was also First Mate on the Gaul on her last tragic voyage.

The official survey by the Marine Accident Investigation Branch [MAIB] started on 10thAugust, 1998.

Subsequent claims by MAIB suggested that new and important evidence had been found which supported Model experiments that were made up to January 1999. Three bodies had been discovered on the coast of Northern Russia shortly after the loss of the Gaul. DNA samples were later taken and compared with samples offered by relatives of the lost crew.

Positive matches were not forthcoming.

The Marine Accident Investigation Branch report 4/99 indicated that the Gaul "was lost due to down flooding through open weather tight doors and hatches after being 'knocked-down' by several very large breaking waves."
The Channel 4 television survey film showed that the four windows on the bridge were intact, despite the vessel having been 'knocked down'.

Damage to the Gaul's strengthened bow has fuelled further speculation about Cold War involvement. According to one independent view the damage is believed to have been caused by collision with a semi-submerged object at speed, leaving at least one gaping hole in the bow, although the MAIB describe it as pressure crushing damage.
The NATO exercise, "Clockwork", was taking place west of the position where the Gaul went down.
There would have been monitoring by Russian and NATO submarines and it is envisaged that the Russians would have placed their 'Trawlers' in the area for intelligence gathering.
Independent experts have suggested that the Gaul could lie on top of a secret monitoring device, the cable being visible on C4's video footage.
The other immediate mystery is that of the three unidentified bodies washed up on the Russian shore and described by Russian investigators as 'English'.

In a Press Notice of UK Department of the Environment, Transport and the Regions [DETR], DETR News Release 459, 5th July, 2000, Deputy Prime Minister John Prescott said that he would not risk diver's lives on an expedition to investigate the loss of the Gaul. Mr Prescott said that experts had advised him that it was too dangerous, the proposed dive being at the very limit of current certification of saturation diving equipment.

The depth involved appears well beyond recent diving experience in the North Sea. He went on to state that nets surrounding the wreck and a fairly constant sea current would pose further risks.

The Gaul Families Association solicitor wrote a letter, dated 27th July 2000, to them in answer to DETR Press Notice 459. In the letter he indicates that Experts who have advised the solicitor say that a manned dive is possible and safe.

In September 2000 the Gaul Families Association approached the diver who salvaged gold from HMS Edinburgh, over 240metres down, in an attempt to force the governments hand on a manned dive.

The original recommendation for a manned dive on to the wreck was made by the wreck Commissioner, high court judge Sir David Steel, in June 2000, suggesting that the dive be made that summer. Mr Prescott, however saw fit to suggest to the Court that the use of a remotely operated vehicle may offer a way forward but admitted that technology would need to be developed to achieve the aims of the dive. Such a dive would require the search to be postponed until the summer of 2001. [Twenty-seven years after the loss of the Gaul].

Three Hull trawlers named by Dr Reid as having been involved in intelligence gathering in the mid 60's and early 70's were: MV Arctic Galliard H195, MV Invincible H96 and MV Lord Nelson H330. A combined total of five specific intelligence gathering missions were made by those trawlers, the last being in September 1973.

Information in the public domain documents the arrest of a British trawler, the Swanella, on 26thSeptember, 1950.

The trawler was held for 5 days, the Russian investigator noting that the vessel was in a prohibited zone, the Kola Sound.

A further report from the then Head of Intelligence [Russian] Northern Fleet made note that during October 1950 65 British trawlers were seen in the Barents Sea, occasionally approaching the shore and violating territorial waters.

During February, April and July 1952 another trawler, the Lord Ancaster H573, was noted in the Barents Sea by Russian observers. It was seen photographing a Russian submarine. The observers noted that the trawler's call sign was MSZX and that it was equipped with dish radar.

At one stage as many as 12 trawlers were found to be within 3 to 4 miles of the Kildin Island area where mine laying exercises were being made by Northern Fleet squadrons. Later a submarine was 'hampered' by a British trawler. Despite being ordered to leave the 'military base exercise area', which the trawler ignored, it apparently prevented the submarine from completing its operational requirements.

A letter to a Soviet Defence Minister, in 1952, outlined that many English trawlers possessed high power transmitters and radar equipment and were designed more for intelligence gathering rather than fishing.

On Saturday 30thSeptember, 2000 a British newspaper carried an article concerning a statement made by a Royal Naval Commander serving in the Defence Intelligence Staff.

His statement concerned the investigation of the use of fishing trawlers in the activities of gathering intelligence and in particular the Gaul.

He stated that information given in his statement was obtained from Ministry of Defence [MoD] records and had no knowledge of other records that may be held by other departments.

He confirmed that some trawlers had been used for low level intelligence gathering and on occasion specialist personnel were carried aboard trawlers for passive listening whilst the vessels fished.

Up to 40 trawlers were used in this way as confirmed by government information released in 1998. The Commander said that he had seen references to Cdr Brookes as an intelligence liaison officer with fishing crews in Hull but also understood that he was a member of the secret intelligence service until his death in 1971.
Concerning the use of the MV Gaul or its crew being engaged on intelligence gathering, a confirmation was made that none of the crew had been briefed on intelligence collection, or issued with radio or photographic equipment, in the 12 months prior to the loss.
No record, he said, was held by the MoD of any member of the Gaul who was, or had been, involved in intelligence activities for the Royal Navy and therefore could not state with any certainty that no member of the crew had been involved in intelligence.

In the body of the report the Commander made reference to the cable, possibly connected to SOSUS equipment, and confirmed that it was not, because he had consulted MoD staff who had access to such information on SOSUS.
A layer of water exists where sound propagates to good effect, It is this layer that SOSUS [sound surveillance system] exploits, looking for sounds in the 25 to 200Hz range, with peaks at 100Hz using long acoustic sensors [hydrophones] installed across ocean beds.
Documentation in the public domain states that the SOSUS arrays were set in oceans at depths of 300 to 600 metres. Channel 4's television crew made no mention of having seen a SOSUS array, although they followed the cable some 140 miles to Soray Island. The statement, from the Commander, may well be accurate that it not a part of the SOSUS system. It could of course be another totally different system, perhaps based on a magnetic anomaly caused by the passage of a large vessel, such as a submarine, within its field of influence. Commercial induction sensors are available with a frequency band from 1Hz to 1kHz and have been used for submarine detection.
It is obvious that any SOSUS records would make no reference to a totally different system.

Former Hull fishermen had previously made testimony to the First Mate and Skipper of the Gaul as having been involved in intelligence gathering in the Barents Sea on other vessels. Another skipper aboard Channel 4's survey ship demonstrated an actual camera, issued by Cdr Brookes, as being capable of taking 48 frames in quick succession. He also disclosed a vessel identification book also given to him as containing outlines of various vessels, including submarines.

The original question, asking if the Gaul was involved in intelligence gathering, still remains unanswered.
Or does it?

Bodies of Hull trawler Gaul's missing crew 'found in Russia' 40 years after Cold War mystery sinking
By Hull Daily Mail | Posted: December 11, 2013
http://www.hulldailymail.co.uk/Bodies-Hull-trawler-Gaul-s-missing-crew-Russia-40/story-20303460-detail/story.html

HUMAN remains thought to be missing members of the crew of Hull trawler Gaul - which went missing in February, 1974 - have been discovered on the Russian coast. DNA tests are currently being carried out by the Russian authorities to identify them.

The Mail understands the remains of up to ten bodies are being examined. The discovery comes nearly 40 years after the trawler disappeared during a fierce storm in the Barents Sea 80 miles off Norway with the loss of her entire 36-man crew.

The factory stern trawler issued no distress call and a subsequent search failed to locate the wreck. The Gaul was eventually found in 1997 during a privately-funded seabed survey.

Only three crew members have ever been positively identified after bone fragments were recovered from the vessel in another survey in 2002 – factory charge-hand Stan Collier, 40, James Wales, 29, the Gaul's third engineer, and acting first mate Maurice Spurgeon, 38.

Now, fresh hopes have been raised that more missing men could be identified after Humberside Police confirmed it was working with the Foreign Office to liaise with the Russian authorities over the discovery.

Assistant Chief Constable Alan Leaver from Humberside Police said: "We have met all the families of the crew members lost on the Gaul and will continue to provide them with information as it becomes available. At the moment, the information we have is very limited and we have to wait for the Russian authorities to advise us of the tests they are doing on the remains. We will continue to work with the Foreign and Commonwealth Office to seek to support families and to provide more details about the remains."

In their statement, police said the remains had initially been found on the Rybachy peninsula in the Murmansk region of Russia in the mid-1970s by people living nearby. The Mail understands a Russian custom at the time the Gaul disappeared was to use rocks to cover the bodies of unknown dead seafarers because freezing ground conditions meant it was impossible to dig proper graves. It is not clear why the discovery was not reported at the time, although the loss of the Gaul happened at the height of the Cold War.

The police statement states: "At this stage, there is no confirmation as to the nationality of the remains. However, this area of Russia is consistent with the area where the lost crew of the Gaul could have washed ashore. The information passed to the UK authorities is that the remains were found in 1974 or 1975 by the local population."

Families of the dead crew have been given information about the discovery of the remains and details of the forensic tests during the visit from the police.

The statement adds: "During these visits, the officers have been asking family members for descriptive and comparative information that may assist in identifying the missing from the Gaul at this time or if other bodies are discovered at a later date. The Russian authorities have confirmed they are conducting forensic and genetic testing on the remains and they are committed to assisting the UK in the identification of the remains found."

Timeline of the Gaul mystery

All 36 crew members died when what was then regarded as one of Hull's most advanced trawlers disappeared during a heavy storm 70 miles off the Norwegian coast in February 1974. A subsequent search for the Gaul in the Arctic waters of Barents Sea found no wreckage.

Two months later, a lifebelt from the vessel was washed ashore in Norway. The lifebelt was the only physical evidence from the factory freezer trawler to be displayed at a public inquiry into her loss held in Hull later that year. The inquiry concluded the Gaul must have been overwhelmed by heavy seas.

However, the findings did not satisfy many relatives of the crew. Some suspected the vessel's disappearance was linked to Cold War hostilities. Rumours persisted about submarine collisions, Russian kidnapping and cover-ups aimed at hiding details of a secret intelligence gathering mission.

Eventually, in 1997, the wreck was discovered on the seabed some 70 miles north of the North Cape of Norway. The Gaul was found by an expedition led by journalist Norman Fenton and financed by two TV companies.

That led to the then Deputy Prime Minister and Hull East MP John Prescott to ask the Marine Accident Investigation Branch to commission its own survey of the wreck. A follow-up survey found human remains onboard.

A re-opened inquiry into her loss by the MAIB concluded the vessel had been flooded as a result of two open waste chutes on the main deck.

http://www.hulldailymail.co.uk/Bodies-Hull-trawler-Gaul-s-missing-crew-Russia-40/story-20303460-detail/story.html

Chart Section Index

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] HM [Hybrid Mode: Voice/Data] 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 unk 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	Jan kHz, ID, ...	Feb kHz, ID, ...
						x	0100/0120/0140		V07	01B	16037/14637/12137 661	18368/16268/13968 329
x							0450		E11	03	5082 416/00	5082 416/00
x							0530/0550/0610		M12	01B	4457/ 5157/ 417, search	4617/ 5317/ 5817 638
			x				0530/0550/0610		E07A	01B	5146/ 5846/ 6846 188	5146/ 5846/ 6846 188
		x		x			0545		E11	03	348/00, search	348/00, search
				x			0600/0610		S06S	01A	6085/ 8813 934, search	6085/ 8813 934, search
			x	x			0600/0700		E06	01B	13390/15810 139	15920/17470 702
	x		x				0645		E11	03	7840 517/00	7840 517/00
						x	0700		M01	01B	5465 197	5465 197
	x						0700/0800	2	M14	01B	5785/ 5895 178	5785/ 5895 178
				x			0700/0710		S06S	01B	7150/ 8215 169	7150/ 8215 169
	x						0700/0710(15)		S06S	01B	5250/ 6320 374	5250/ 6320 374
				x			0700/0720/0740		M12	01B	9138/10538/12138 138	9338/10638/12138 238
		x			x		0700/0720/0740		XPA	01B	9109/10909/12209	11409/13509/14609
	x			x			0710		E11	03	10800 633/00	10800 633/00
		x					0730/0740		S06S	01A	7030/ 6305 481	7030/ 6305 481
			x				0730/0750/0810		M12	01B	5284/ 5784/ 277, search	5884/ 6884/ 888, search
	x		x				0745		E11	03	16112 335/00	16112 335/00
			x				0800/0810		E17Z	01A	11170, 9820 674	11170, 9820 674
x							0800		G06	01A	5463 215	5463 215
	x				x		0800/0900		M14	01A	5430/ 5561 171	5430/ 5561 171
	x						0800/0810		S06S	01A	10265/ 9135 352	10265/ 9135 352
				x			0800/0810		S06S	01A	5810/ 6770 278	5810/ 6770 278
	x			x			0800/0820/0840		XPA2	01B	20258/17558/15858	20258/17558/15858
x		x					0800/0820/0840		M12	01B	14736/13536/12136 751	17427/15827/14527 485
x			x				0820		E11	03	8088 438/00	8088 438/00
		x					0820/0830		S06S	01A	6778/ 7675 471	6778/ 7675 471

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
x				x			0830		E11	03	9446 649/00	9446 649/00
x							0830/0840		S06S	01A	8234/ 9270 371	8234/ 9270 371
		x					0830/0840		S06S	01A	7335/11830 745	7335/11830 745
		x					0840/0850		S06S	01A	9260/11415 328, search	9260/11415 328, search
x		x					0900		E11	03	9446 534/00	9446 534/00
			x		x		0900		E11	03	4441 248/00	4441 248/00
x							0900/0910		S06S	01A	14675/12830 872	14675/12830 872
			x				0900/0910		S06S	01A	12952/13565 167	12952/13565 167
			x				0900/0910		S06S	01A	5410/ 6770 624	5410/ 6770 624
					x		0900/0920/0940		E07A	01B	11123/12123/ 114, search	11053/12153/13553 015
	x			x			0915		S11A	03	7504 484/00	7504 484/00
			x				0930/0940		S06S	01A	8812/ 9540 314	8812/ 9540 314
				x			0930/0940		S06S	01A	11780/12570 516 9445/10195 search	11780/12570 516 9445/10195 search
	x						1000/1010		S06S	01A	6440/ 5660 893	6440/ 5660 893
		x					1000/1010		S06S	01A	12365/14280 729	12365/14280 729
			x			x	1010/1030/1050		M12	01B	13369/14669/15969 369	13569/14869/16269 582
x			x				1015		S11A	03	12530 475/00	12530 475/00
	x			x			1020		S11A	03	9610 426/00	9610 426/00
		x			x		1020		S11A	03	6433 221/00	6433 221/00
	x						1045		E11	03	12153 576/00	12153 576/00
	x	x					1045		E11	03	8091 469/00	8091 469/00
x				x			1110		E11A	03	14410 95#/##	14410 95#/##
	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	7316/ 6814 218	7316/ 6814 218
		x	x			x	1155		E11	03	15632 718/00	15632 718/00
			x				1200	?	G06	01A	search 215	search 215

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
			x				1200/1210		S06S	01A	12155/10920 425	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	x					1300		E11	03	14666 133/00	14666 133/00
			x				1300	?	G06	01A	search 215	search 215
x							1300/1310		S06S	01A	8420/10635 831	8420/10635 831
x	?						1300/1320/1340		M12	01B	8112/ 7552/ 6702 157	9223/ 8193/ 7463 214
			x			x	1320		M03	03	4828 437/00	4828 437/00
				x	x		1325		G11	03	6433 299/00	6433 299/00
	x				x		1400		E11A	03	10690 98#/##	10690 98#/##
				x		x	1420		M03	03	13911 879/00	13911 879/00
		x			x		1445		E11	03	4441 287/00	4441 287/00
					x		1500		M01	14	5810 197	5810 197
		x					1500/1520/1540		M12	01B	7697/ 6797/ 5397 157	7697/ 6797/ 5397 214
	x						1500/1510		S06S	01A	6845/ 9170 537	6845/ 9170 537
	x				x		1535		M03	03	5358 798/00	5358 798/00
x						x	1540		E11	03	15632 228/00	15632 228/00
					x		1600 (1605)		S06	01A	7387/ 5943 764	7387/ 5943 764
		x					1600/1620/1640		M12	01B	11435/10598/ 9327 938	11435/10598/ 9327 938
			x				1605		M01B	14	5938 159	5938 159
				x			1610/1630/1650		E07A	01B	search	search
				x			1615		M01B	14	5810 158	5810 158
x							1700	1/2	G06	01A	3673 564	3673 564
x			x				1700/1720/1740		M12	01B	9176/ 7931/ 6904 257	4515 564
		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	Jan kHz, ID, ...	Feb kHz, ID, ...
x				x			1710		E11A	03	6923 95#/##	6923 95#/##
			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	4515 564	4515 564
	x		x				1800		M01	14	5320 197	5320 197
	x						1800		S06	01A		3645 617
x							1800/1820/1840		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
		x				x	1800/1820/1840		E07	01B	x6774/ 5836/ 4893 788, search	x7697/ 6863/ 5938 689, search
			x				1800/1820/1840		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
	x		x				1802		M45	14	3525, 4025 525	3525, 4025 525
	x				x		1810		E11A	03	10213 98#/##	10213 98#/##
	x						1820		M14	01A	4636 186	4636 186
			x				1830	2/4	G06	01A	4519 271	4519 271
	x						1830/1850/1910		M12	01B	10343/ 9264/ 8116 124	10343/ 9264/ 8116 124
		x					1830/1850/1910		M12	01B	11435/10598/ 9327 938	11435/10598/ 9327 938
	x		x				1842		S21	14	3323, 3823 323	3323, 3823 323
x			x				1900 (1905)		S06	01A	3192 (3838) 349	3192 (3838) 349
x			x				1900/1920/1940		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
	x		x				1900/1920/1940		XPA	01B	7891/ 6791/ 5391	8123/ 7523/ 6823
x							1910		M01B	14	2435, 3519 853	2435, 3519 853
x							1915/2015	2/4	S06	01A	8145/ 6820 384	9255/ 7630 789
		x					1920/2020	2	E06	01A	3526/ 3729 218	3526/ 3729 218
		x					1920	2/4	M14	01A	4761 748	4761 748
				x			1930	2/4	G06	01A	4792 218	4792 218
					x		1930 (1935)		S06	01A	3172/ 3834 426	3172/ 3834 426
				x			2000		E11	03	x4536 576/00, search	x4536 576/00, search
				x	x		2000	1/3	G06	01A	7882 239, search	7882 239, search

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
				x		x	2000		G11	03	4441 262/00	4441 262/00
	x		x				2000		M01	14	4490 197	4490 197
x		x					2000/2020/2040		E07	01B	6982/ 5882/ 5182 988	7724/ 6924/ 5824 798
					x		2000/2100	1/3	S06	01A	4040/ 3563 319	4040/ 3563 319
				x			2002		M01B	14	2653, 3197 866	2653, 3197 866
x							2015		M01B	14	2427, 3205 375	2427, 3205 375
			x				2030	1/3	E06	01A	4836 321	4836 321
					x		2030/2130	1/3	S06	01A	4784/ 4017 857	4784/ 4017 857
			x				2042		M01B	14	2485, 3160 382	2485, 3160 382
				x	x		2100	1/3	G06	01A	239, search	239, 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 Nov 2013 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Fri 1	None	Found							
Sat 2	13**10**	9162^	13**30**	8062	13**50**	7462	104	8595	129
Sun 3	None	Found							
Mon 4	05**30**	4617	05**50**	5317	06**10**	- - -	638	0 0 0	
	1300	9187	13**26***	8057	13**51***	7697	106	4632	287
	1600	11435	1620	10598	1640	9327	938	8729	102
	1700	9176	1720	7931	1740	6904	257	5005	72
	1800	9176^	1820	7931	1840	6904	257	6549	60
	1900	9176^	1920	7931	1940	6904	257	6885	105
Tue 5	18**30**	10343	18**50**	9264	19**10**	8116	124	7820	57
Wed 6	1500	8112	15**26***	7552	15**51***	6792	106	4632	287
	1700	8047	1720	6802	1740	5788	463	7975	97
	18**30**	11435	18**50**	10598	19**10**	9327	938	2581	52
	2200	5429	2220	4629	2240	- - -	460	0 0 0	
Thu 7	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	13**10**	9162	13**30**	8062	13**50**	- - -	104	0 0 0	
	1600	13386	1620	12189	1640	11491	725	4818	101
	1700	9176	1720	7931	1740	6904	257	8737	79
	1700	10343	1720	9264	1740	8116	124	3969	70
	1800	10343	1820	9264	1840	8116	124	8326	110
	1900	9176	1920	7931	1940	6904	257	1663	65

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Fri 8	None	Found							
Sat 9	13**10**	9162	13**30**	8062	13**50**	- - -	104	0 0 0	
Sun 10	None	Found							
Mon 11	05**30**	4617	05**50**	5317	06**10**	- - -	638	0 0 0	
	1300	9187	1320	8057	1340	7697	106	4227	179
	1600	11435	1620	10598	1640	9327	938	7144	113
	1700	9176	1720	7931	1740	6904	257	2913	74
	1800	9176	1820	7931	1840	6904	257	7733	69
	1900	9176	1920	7931	1940	6904	257	7911	117
Tue 12	18**30**	10343	18**50**	9264	19**10**	8116	124	1339	50
Wed 13	1500	8112	1520	7552	1540	6792	106	4071	101
	1700	8047	1720	6802	1740	5788	463	7433	62
	18**30**	11435	18**50**	10598	19**10**	9327	938	9804	65
	2200	5429	2220	4629	2240	- - -	460	0 0 0	
Thu 14	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	13**10**	9162	13**30**	8062	13**50**	- - -	104	0 0 0	
	1600	13386	1620	12189	1640	11491	725	5186	109
	1700	9176	1720	7931	1740	6904	257	2707	91
	1700	10343	1720	9264	1740	8116	124	9306	76
	1800	10343	1820	9264	1840	8116	124	4905	102
	1900	9176	1920	7931	1940	6904	257	1263	44

Highlighted cell indicates new or changed loggings

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

*** Time of transmissions offset due to length of message**

^ Weak reception NH Not Heard NF Not Found

M12 Log2 Nov 2013 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Fri 15	None	Found							
Sat 16	13**10**	9162	13**30**	8062	13**50**	- - -	104	0 0 0	
Sun 17	Not	Monit	-ored						
Mon 18	05**30**	4617	05**50**	5317	06**10**	- - -	638	0 0 0	
	1600	11435	1620	10598	1640	9327	938	6826	100
	1700	9176^	1720	7931	1740	6904	257	7856	76
	1800	9176^	1820	7931	1840	6904	257	7939	55
	1900	NH	1920	7931	1940	6904	257	9151?	117?
Tue 19	18**30**	NH	18**50**	NH	19**10**	8116^	124	. . . 7	60
Wed 20	1500	8112	1520	7552	1540	6792	106	186	123
	1700	8047	1720	6802	1740	5788	463	7136	66
	18**30**	11435^	18**50**	10598^	19**10**	9327^	938	???	??
	2200	5429	2220	4629	2240	4029	460	179	99
Thu 21	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	10**10**	15969	10**30**	17479	10**50**	18169	941	5060	65
	13**10**	9162	13**30**	8062	13**50**	- - -	104	0 0 0	
	1700	9176^	1720	7931	1740	6904	257	6801	55
	1700	10343^	1720	9264	1740	8116	124	5064	79
	1800	10343^	1820	9264	1840	8116	124	8309	113
	1900	NH	1920	NH	1940	6904^	257	6998	65?

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Fri 22	None	Found							
Sat 23	0600	7637	0620	9137	0640	10237	612	179	99
	13**10**	9162	13**30**	8062	13**50**	- - -	104	0 0 0	
Sun 24	10**10**	15969	10**30**	17479	10**50**	18169	941	5060	65
Mon 25	05**30**	4617	05**50**	5317	06**10**	- - -	638	0 0 0	
	1300	9187	1320	8057	1340	7697	106	7345	157
	1600	11435	1620	10598	1640	9327	938	3088	112
	1700	9176^	1720	7931	1740	6904	257	8205	70
	1800	9176^	1820	7931	1840	6904	257	9075	65
	1900	9176	1920	7931	1940	6904	257	5904	112
Tue 26	18**30**	10343^	18**50**	9264	19**10**	8116	124	9490	50
Wed 27	1500	8112	1520	7552	1540	6792	106	7345	157
	1700	8047	1720	6802	1740	5788	463	4831	57
	2200	5429	2220	4629	2240	- - -	460	0 0 0	
Thu 28	07**30**	5884	07**50**	6884	08**10**	- - -	888	0 0 0	
	10**10**	15969	10**30**	17479	10**50**	18169	941	9511	93
	1600	13386	1620	12189	1640	11491	725	2168	115
	1700	9176^	1720	7931	1740	6904	257	6255	98
	1700	10343^	1720	9264	1740	8116	124	9633	80
	1800	NH	1820	9264^	1840	8116	124	362	97
	1900	9176	1920	7931	1940	6904	257	7837	61

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 Thomas (tiNG) for finding ID 941 on Thu / Sun 1010z

M12 Log1 Dec 2013 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sun 1	10**10**	13569	10**30**	14869	10**50**	16269	582	9511	93
Mon 2	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	939	209
	1600	11435^	1620	10598^	1640	9327	938	5228	113
	1700	9176	1720	7931	1740	6904	257	3413	77
	1800	9176	1820	7931	1840	6904	257	6859	55
	1900	9176^	1920	7931	1940	6904	257	362	97
Tue 3	18**30**	NH	18**50**	NH	19**10**	8116^	124	???	??
Wed 4	1500	7509	1520	6909	1540	5709	214	939	209
	1700	8047	1720	6802	1740	5788	463	2170	62
	18**30**	NH	18**50**	10598^	19**10**	9327	938	???	??
	2200	5312	2220	4512	2240	4012	350	6809	91
Thu 5	07**30**	5284	07**50**	5784	08**10**	- - -	277	0 0 0	
	10**10**	13569	10**30**	14869	10**50**	16269	582	253	95
	1700	9176^	1720	7931	1740	6904	257	9018	63
	1700	10343^	1720	9264	1740	8116	124	6842	73
	1800	10343^	1820	9264	1840	8116	124	362	97
	1900	NH	1920	NH	1940	6904^	257	9020	53
Fri 6	None	Found							
Sat 7	0600	5784	0600	7584	0640	9184	751	6809	91

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sun 8	10**10**	13569	10**30**	14869	10**50**	16269	582	253	95
Mon 9	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	7756	89
	1600	NH	1620	10598^	1640	9327^	938	3231	119
	1700	9176	1720	7931	1740	6904	257	9593	78
	1800	9176^	1820	7931	1840	6904	257	4145	53
	1900	9176^	1920	7931^	1940	6904	257	800	119
Tue 10	18**30**	10343	18**50**	9264	19**10**	8116	124	7409	68
Wed 11	1500	7509	1520	6909	1540	5709	214	7756	89
	1700	8047	1720	6802	1740	5788	463	2279	92
	18**30**	NH	18**50**	NH	19**10**	9327^	938	???	??
	2200	5312	2220	4512	2240	- - -	350	0 0 0	
Thu 12	07**30**	5284	07**50**	5784	08**10**	- - -	277	0 0 0	
	10**10**	13569	10**30**	14869	10**50**	16269	582	7748	81
	1600	13386	1620	12189	1640	11491	725	9217	105
	1700	9176^	1720	7931	1740	6904	257	2889	95
	1700	10343^	1720	9264	1740	8116	124	9801	80
	1800	10343^	1820	9264	1840	8116	124	800	119
	1900	NH	1920	NH	1940	6904^	257	4757	53
Fri 13	None	Found							
Sat 14	0600	5784	0600	7584	0640	- - -	751	0 0 0	

Highlighted cell indicates new or changed loggings

Note: Highlighted areas show unusual pairings of repeated msgs
257 & 124 Wed / Sat 350 & 751 Mon / Thu

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

^ Weak reception NH Not Heard NF Not Found

M12 Log2 Dec 2013 **Brian - S.E. England**

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sun 15	10**10**	13569	10**30**	14869	10**50**	16269	582	7748	81
Mon 16	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	7463	214	1244	67
	1600	11435	1620	10598^	1640	9327	938	5032	113
	1700	9176	1720	7931	1740	6904	257	8208	78
	1800	9176^	1820	7931	1840	6904	257	2931	68
	1900	NH	1920	NH	1940	6904^	257	???	??
Tue 17	18**30**	10343	18**50**	9264	19**10**	8116	124	4694	59
Wed 18	1500	7509	1520	6909	1540	5709	214	1244	67
	1700	8047^	1720	6802	1740	5788	463	3966	62
	18**30**	NH	18**50**	10598^	19**10**	9327^	938	???	??
	2200	5312	2220	4512	2240	4012	350	931	75
Thu 19	07**30**	5284	07**50**	5784	08**10**	- - -	277	0 0 0	
	10**10**	13569	10**30**	14869	10**50**	16269	582	1311	91
	1600	13386	1620	12189	1640	11491	725	9810	100
	1700	9176^	1720	7931	1740	6904	257	8521	68
	1700	10343^	1720	9264^	1740	8116	124	5083	71
	1800	NH	1820	9264	1840	8116^	124	???	??
	1900	NH	1920	NH	1940	6904^	257	???	??
Fri 20	None	Found							
Sat 21	0600	5784	0600	7584	0640	9184	751	931	75

Day / Date	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	Time (UTC)	Freq (kHz)	ID	Decode Key	Grp No.
Sun 22	10**10**	13569	10**30**	14869	10**50**	16269	582	1311	91
Mon 23	05**30**	4457	05**50**	5157	06**10**	- - -	417	0 0 0	
	1300	9223	1320	8193	1340	- - -	214	0 0 0	
	1600	11435	1620	10598	1640	9327	938	5615	106
	1700	9176^	1720	7931	1740	6904	257	2814	72
	1800	9176^	1820	7931	1840	6904	257	6755	51
	1900	9176^	1920	7931^	1940	6904^	257	???	??
Tue 24	18**30**	10343	18**50**	9264	19**10**	8116	124	6710	60
Wed 25	1500	7509	1520	6909	1540	- - -	214	0 0 0	
	1700	8047	1720	6802	1740	5788	463	1879	77
	18**30**	NH	18**50**	NH	19**10**	9327^	938	??83	??
Thu 26	07**30**	5284	07**50**	5784	08**10**	- - -	277	0 0 0	
	10**10**	13569	10**30**	14869	10**50**	16269	582	4208	79
	1600	13386	1620	12189	1640	11491	725	8678	115
	1700	9176^	1720	7931	1740	6904	257	9609	59
	1700	10343	1720	9264	1740	8116	124	2414	72
	1800	10343^	1820	9264^	1840	8116	124	4422	102
	1900	9176^	1920	7931	1940	6904	257	1608	53
Fri 27	None	Found							
Sat 28	0600	5784	0600	7584	0640	9184	751	904	89

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

Note: Highlighted areas show unusual pairings of repeated msgs
257 & 124 Wed / Sat 350 & 751 Mon / Thu

Some very poor sigs received during this period - some details not heard

M12 Yearly Repeat Schedules 2012 - 2013 **Brian S.E. England**

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Jan													
05**30**	05**50**	06**10**	4457	5157	- - -	417	X						
07**30**	07**50**	08**10**	5284	5784	- - -	277				X			
1300	1320	1340	8112	7552	6792	157	X						
1500	1520	1540	7697	6797	5397	157			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	10343	9264	8116	124					X		
1800	1820	1840	9176	7931	6904	257	X						
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5361	4461	- - -	340			X				
Feb													
05**30**	05**50**	06**10**	4617	5317	- - -	638	X						
0600	0620	0640	7637	9137	10237	612						X	
07**30**	07**50**	08**10**	5884	6884	- - -	888				X			
10**10**	10**30**	10**50**	13569	14869	16269	582							X
1300	1320	1340	9223	8193	7463	214	X						
1500	1520	1540	7697	6797	5397	214			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	10343	9264	8116	124				X	X		
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
18**30**	18**50**	19**10**	12217	10617	- - -	263			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5429	4629	4029	460			X				

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Mar													
05**30**	05**50**	06**10**	5792	6992	- - -	796	X						
0600	0620	0640	8158	9258	- - -	126						X	
07**30**	07**50**	08**10**	6784	7684	8184	761				X			
10**10**	10**30**	10**50**	14769	16269	- - -	721				X			X
1300	1320	1340	11524	10424	9324	543	X						
1500	1520	1540	10968	10168	9128	543			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1700	1720	1740	8047	6802	5788	463			X				
1800	1820	1840	10343	9264	8116	124				X	X		
1800	1820	1840	9176	7931	6904	257	X						
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5763	5163	4463	714			X				
Apr													
04**30**	04**50**	05**10**	5792	6992	- - -	796	X						
06**30**	06**50**	07**10**	7484	8084	- - -	402				X			
1300	1320	1340	14964	13972	12164	991	X						
1500	1520	1540	13918	12218	10748	991			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X	X		
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	6793	5893	- - -	785			X				
21**10**	21**30**	21**50**	11469	10469	- - -	441						X	

M12 Yearly Repeat Schedules 2012 - 2013 **Brian S.E. England**

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
May													
04**30**	04**50**	05**10**	6857	7557	- - -	850	X						
06**30**	06**50**	07**10**	7984	9184	- - -	911				X			
1300	1320	1340	14372	13472	11472	344	X						
13**10**	13**30**	13**50**	13926	12126	10926	919						X	
1500	1520	1540	14492	13392	12126	344			X				
1600	1620	1640	12162	11566	10711	546	X						
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X	X		
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	9241	7541	6841	258			X				
21**10**	21**30**	21**50**	14869	13569	12179	851			X			X	
Jun													
04**30**	04**50**	05**10**	6857	7557	- - -	850	X						
06**30**	06**50**	07**10**	7984	9184	- - -	911				X			
1300	1320	1340	14524	13524	11525	555	X						
13**10**	13**30**	13**50**	13873	13373	11473	834						X	
1500	1520	1540	14964	13972	12164	555			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	9986	9086	- - -	903			X				
21**10**	21**30**	21**50**	16269	14669	- - -	263			X			X	

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
July													
04**30**	04**50**	05**10**	6857	7557	- - -	850	X						
06**30**	06**50**	07**10**	7984	9184	- - -	911				X			
1300	1320	1340	13972	13472	11472	944	X						
13**10**	13**30**	13**50**	13926	12126	10926	919						X	
1500	1520	1540	14492	13392	11092	944			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	9379	7979	6879	398			X				
21**10**	21**30**	21**50**	14869	13569	12179	851			X			X	
Aug													
04**30**	04**50**	05**10**	5792	6992	- - -	796	X						
06**30**	06**50**	07**10**	7484	8184	- - -	402				X			
1300	1320	1340	14964	13972	12164	991	X						
13**10**	13**30**	13**50**	14468	13568	12178	451						X	
1500	1520	1540	13918	12218	10818	991			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	8123	6923	5823	198			X				
21**10**	21**30**	21**50**	13369	12179	10469	314			X			X	

M12 Yearly Repeat Schedules 2012 - 2013 **Brian S.E. England**

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Sep													
04**30**	04**50**	05**10**	5792	6992	- - -	796	X						
06**30**	06**50**	07**10**	6784	7684	8184	761				X			
1300	1320	1340	14372	13472	11472	344	X						
13**10**	13**30**	13**50**	13873	13373	11473	834				X		X	
1500	1520	1540	13524	`11524	10334	344			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	6793	5893	- - -	785			X				
21**10**	21**30**	21**50**	11469	10469	9169	441			X			X	
Oct													
04**30**	04**50**	05**10**	4617	5317	- - -	638	X						
06**30**	06**50**	07**10**	6784	7684	8184	761				X			
1300	1320	1340	10804	9324	7964	839	X						
13**10**	13**30**	13**50**	12214	10814	9214	282				X		X	
1500	1520	1540	9223	8193	7463	839			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2100	2120	2140	5814	5214	4614	826			X				
21**10**	21**30**	21**50**	10269	9269	7969	229			X			X	

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Nov													
05**30**	05**50**	06**10**	4617	5317	- - -	638	X						
07**30**	07**50**	08**10**	5884	6884	- - -	888				X			
1300	1320	1340	9187	8057	7697	106	X						
13**10**	13**30**	13**50**	9162	8062	- - -	104				X		X	
1500	1520	1540	8112	7552	6792	106			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5429	4629	4029	460			X				
Dec													
05**30**	05**50**	06**10**	4457	5157	- - -	417	X						
0600	0620	0640	5784	7584	9184	751						X	
07**30**	07**50**	08**10**	5284	5784	6784	277				X			
10**10**	10**30**	10**50**	13569	14869	16269	582				X			X
1300	1320	1340	9223	8193	7463	214	X						
1500	1520	1540	7509	6909	5709	214			X				
1700	1720	1740	8047	6802	5788	463			X				
1700	1720	1740	9176	7931	6904	257	X			X			
1700	1720	1740	10343	9264	8116	124				X			
1800	1820	1840	9176	7931	6904	257	X						
1800	1820	1840	10343	9264	8116	124				X			
18**30**	18**50**	19**10**	10343	9264	8116	124		X					
18**30**	18**50**	19**10**	11435	10598	9327	938			X				
1900	1920	1940	9176	7931	6904	257	X			X			
2200	2220	2240	5312	4512	4012	350			X				

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	General Remarks
x							0450		E11	03	5082 416/00	5082 416/00	5082 416/00	5082 416/00	since 02/10, **last log 12/13**
		x		x			0545		E11	03	348/00, search	348/00, search	348/00, search	348/00, search	since 06/11, last log 10/13
	x		x				0645		E11	03	7840 517/00	7840 517/00	7840 517/00	7840 517/00	since 07/09, **last log 12/13**
	x			x			0710		E11	03	10800 633/00	10800 633/00	10800 633/00	10800 633/00	since 02/11, **last log 12/13**
	x		x				0745		E11	03	16112 335/00	16112 335/00	16112 335/00	16112 335/00	since 10/11, last log 12/13
x			x				0820		E11	03	**8088** 438/00	**8088** 438/00	**8088** 438/00	**8088** 438/00	since 10/09, **last log 12/13**
x				x			0830		E11	03	9446 649/00	9446 649/00	9446 649/00	9446 649/00	since 01/10, **last log 12/13**
x		x					0900		E11	03	9446 534/00	9446 534/00	9446 534/00	9446 534/00	since 10/09, **last log 12/13**
			x		x		0900		E11	03	4441 248/00	4441 248/00	4441 248/00	4441 248/00	since 02/10, **last log 12/13**
	x			x			0915		S11A	03	7504 484/00	7504 484/00	7504 484/00	7504 484/00	since 01/10, **last log 12/13**
x			x				1015		S11A	03	12530 475/00	12530 475/00	12530 475/00	12530 475/00	since 04/10, **last log 12/13**
	x			x			1020		S11A	03	9610 426/00	9610 426/00	9610 426/00	9610 426/00	since 02/10, **last log 12/13**
		x			**x**		**1020**		**S11A**	**03**	**6433** **221/00**	**6433** **221/00**	**6433** **221/00**	**6433** **221/00**	**since 09/08, last log 12/13**
	x						1045		E11	03	**12153** 576/00	**12153** 576/00	**12153** 576/00	**12153** 576/00	since 01/12, **last log 12/13**
	x	x					1045		E11	03	8091 469/00	8091 469/00	8091 469/00	8091 469/00	since 03/10, **last log 12/13**
x				x			1110		E11A	03	14410 95#/##	14410 95#/##	14410 95#/##	14410 95#/##	since 12/11, **last log 12/13**
	x	x	x				1115		M03	03	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	4828 272/00 (Tue) & 650/00 (Wed/Thu)	since 10/09, **last log 12/13**
		x	x			x	1155		E11	03	15632 718/00	15632 718/00	15632 718/00	15632 718/00	since 04/11, **last log 12/13**
	x	**x**					**1300**		**E11**	**03**	**14666** **133/00**	**14666** **133/00**	**14666** **133/00**	**14666** **133/00**	since 08/13, **last log 12/13**
			x			x	1320		M03	03	4828 437/00	4828 437/00	4828 437/00	4828 437/00	since 02/11, **last log 11/13**
				x	x		1325		G11	03	6433 299/00	6433 299/00	6433 299/00	6433 299/00	since 03/10, **last log 11/13**
	x				x		1400		E11A	03	10690 98#/##	10690 98#/##	10690 98#/##	10690 98#/##	since 10/11, **last log 12/13**
				x		**x**	**1420**		**M03**	**03**	**13911** **879/00**	**13911** **879/00**	**13911** **879/00**	**13911** **879/00**	**since 01/12, last log 11/13**
		x			x		1445		E11	03	4441 287/00	4441 287/00	4441 287/00	4441 287/00	since 11/10, **last log 12/13**
	x				x		1535		M03	03	5358 798/00	5358 798/00	5358 798/00	5358 798/00	since 11/10, **last log 12/13**
x						x	1540		E11	03	15632 228/00	15632 228/00	15632 228/00	15632 228/00	since 03/11, **last log 12/13**
x				x			1710		E11A	03	6923 95#/##	6923 95#/##	6923 95#/##	6923 95#/##	since 11/11, **last log 12/13**
			x				1730		E11	03	5082 416/00	5082 416/00	5082 416/00	5082 416/00	since 03/10, **last log 12/13**
	x					x	1755		G11	03	6433 270/00	6433 270/00	6433 270/00	6433 270/00	since 02/10, **last log 12/13**
	x				x		1810		E11A	03	10213 98#/##	10213 98#/##	10213 98#/##	10213 98#/##	since 08/12, **last log 12/13**
				x			2000		E11	03	x4536 576/00, search	x4536 576/00, search	x4536 576/00, search	x4536 576/00, search	since 03/12, last log 10/13
				x		x	2000		G11	03	4441 262/00	4441 262/00	4441 262/00	4441 262/00	since 01/11, **last log 12/13**

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	General Remarks
x							0800		G06	01A	5463 215	5463 215	5463 215	5463 215	since 07/10, **last log 12/13**
			x				1200	?	G06	01A	search 215	search 215	215, search	215, search	since 09/11, last log 03/13
			x				1300	?	G06	01A	search 215	search 215	215, search	215, search	since 09/11, last log 09/13
x							1700	1/2	G06	01A	3673 564	3673 564	3673 564	3673 564	since 04/10, **last log 12/13** yearly changing frequencies + id
x							1800	1/2	G06	01A	4515 564	4515 564	4515 564	4515 564	since 05/09, **last log 12/13** yearly changing frequencies + id
			x				1830	2/4	G06	01A	4519 271	4519 271	4519 271	4519 271	since 05/01, **last log 11/13**
				x			1930	2/4	G06	01A	4792 218	4792 218	4792 218	4792 218	since 04/01, **last log 12/13** repeat of Thu 1930Z
				x	**x**		**2000**	**1/3**	**G06**	**01A**	**7882** **239, search**	**7882** **239, search**	**7882** **239, search**	**7882** **239, search**	**since 05/13, last log 12/13**
				x	**x**		**2100**	**1/3**	**G06**	**01A**	**239, search**	**239, search**	**239, search**	**239, search**	**since 04/13, last log 10/13** **repeat of Fri/Sat 2000Z**

Current Cuban Skeds V02/M08/SK01
November-December 2013

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0000							
0100							
0200							
0300							
0400							
0500							
0600							
0700							
0800							
0900							
1000							
1100							
1200							
1300							
1400	**8097() 8072()**	**8097()**	**8097()**	**8097()**	**8097()**		
1500							
1600							
1700							
1800							
1900							
2000	**7554()**	**7554()** ***V02a?***	**7554()**	**7554()** ***V02a?***	**7554()**	**7554()**	
2100							
2200							
2300	**8009()**	**8135()**		**8135()**	**8135()**		

Notes
All schedules currently start at 5 minutes before the top of the hour.
V02a skeds are indicated in italic fonts.
M08a skeds are indicated in normal fonts.
SK01 skeds are in normal fonts with (SK) after the frequency
The primary or first sked is indicated with (P).
The secondary, second or repeat sked is indicated with (S).
All skeds normally begin on the hour.
Frequencies listed as ( ), denote primary or secondary sked not determined.
Frequencies listed without ( ), denotes a possible sked.
Message types shown with ? but no indicate possible sked on unknown frequency.
Frequencies in Bold indicate heard in the last two months. Red font indicates heard 2-4 months ago.

Thanks to Cuban Desk Contributors
Roland (py4zbz), Hans Snekvik, Vince Havrilko, Daniel, GD, Jochen NumbersKopf, Steve H, JimKC, Thomas (tiNG), Rich Burr, Hugh Stegman, synesthetix

HM01 Schedule

Entries in red have appeared over multiple hours in either/both October and November during one week only.

Freq 1	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5855	0500	0500		0500		0500	
12120			0500		0500		0500
14375			0500		0500		0500
5930						0500	
10340			0500				
10715				0500			
11565					0500		
10345	0600	0600		0600		0600	
14375			0600		0600		0600
5930			0600			0600	
10340			0600				
11565					0600		
10715				0600		0600	
9330	0700	0700		0700		0700	
13435			0700		0700		0700
5930			0700				
7980					0700		
10340			0700				
10715				0700			
11565					0700		
9065	0800	0800		0800		0800	
11635			0800		0800		0800
7980					0800		
10715				0800			
11565					0800		
9240	0900	0900		0900		0900	
12120			0900		0900		0900
7980					0900		
10715				0900			
11565					0900		
5855	1000	1000		1000		1000	
9155	1000	1000		1000		1000	
12180			1000		1000		1000
11635			1000		1000		1000
5930					1000		
10715				1000			
11565					1000		

Freq 1	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
11435	1600	1600	1600	1600	1600	1600	1600
11530	1700	1700	1700	1700	1700	1700	1700
11635	1800	1800	1800	1800	1800	1800	1800
11635	2100	2100		2100		2100	
16180			2100		2100		2100
10715	2200	2200		2200		2200	
17480			2200		2200		2200
11530	2300	2300		2300		2300	
17540			2300		2300		2300

 Updated 30/12/2013

SPECIAL MATTERS:

Operation Jallaa: 0

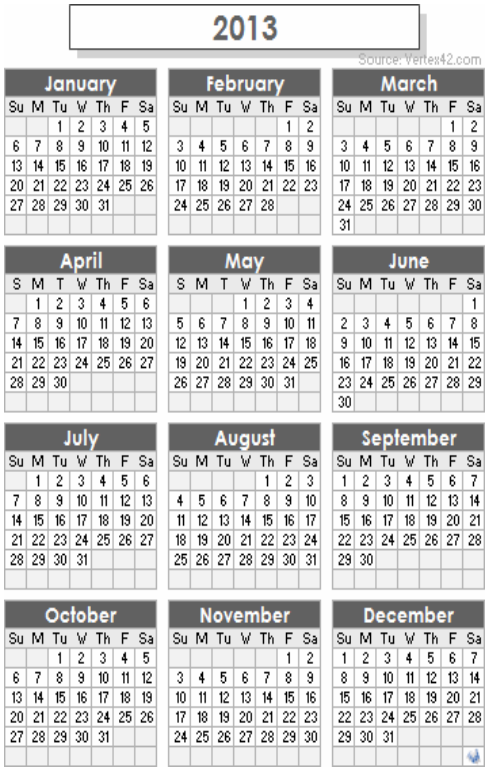
MESSAGES:

'E' Many thanks your input, HNY to you and yours

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



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